

**Iowa Department of Natural Resources
Draft Title V Operating Permit**

Name of Permitted Facility: Van Diest Supply Company
Facility Location: 1434 220th St, Webster City, IA 50595
Air Quality Operating Permit Number: 21-TV-006
Expiration Date: 11/22/2026
Permit Renewal Application Deadline: 5/22/2026

EIQ Number: 92-5221
Facility File Number: 40-01-011

Responsible Official

Name: Lee Trask
Title: Vice President of Manufacturing
Mailing Address: PO Box 610, Webster City, IA 50595
Phone #: 515-832-5691 ex. 4118

Permit Contact Person for the Facility

Name: James Piaszynski
Title: Director of Environmental Compliance
Mailing Address: PO Box 610, Webster City, IA 50595
Phone #: 515-832-7091

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources



11/23/2021

Marnie Stein, Supervisor of Air Operating Permits Section

Date

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Abbreviations

acfm.....	actual cubic feet per minute
CFR.....	Code of Federal Regulation
CE	control equipment
CEM.....	continuous emission monitor
oF	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP	emission point
EU	emission unit
gr./dscf	grains per dry standard cubic foot
gr./100 cf.....	grains per one hundred cubic feet
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS.....	new source performance standard
ppmv	parts per million by volume
lb./hr	pounds per hour
lb./MMBtu	pounds per million British thermal units
SCC.....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC	Standard Industrial Classification
TPY.....	tons per year
USEPA.....	United States Environmental Protection Agency

Pollutants

PM.....	particulate matter
PM10.....	particulate matter ten microns or less in diameter
SO2	sulfur dioxide
NOx.....	nitrogen oxides
VOC	volatile organic compound
CO.....	carbon monoxide
HAP.....	hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Van Diest Supply Company

Permit Number: 21-TV-006

Facility Description: Agricultural chemicals, (SIC 2879)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EC17-1	EC17-1000	Bulk Bag Unloader	02-A-235-S1
	TK-695	Batch Tank	
	TK-696	Premix Tank	
EC17-2	T-686 – T-693	EC17 Storage Tanks	02-A-236-S1
	TK-694	Pack Tank	
EC17-EL	EC17-EL	Equipment Leaks	19-A-091
B14-EL	B14-EL	Equipment Leaks	18-A-004
EP4L-BH1	4L-BBU79	Tank 79 Batching Station	17-A-080
	4L-TK79	Tank 79	
	4L-BBU80	Tank 80 Batching Station	
	4L-TK80	Tank 80	
4L-TK75	4L-TK75	4L Tank 75 PK 1	17-A-081
4L-TK76	4L-TK76	4L Tank 76 PK 2	17-A-082
4L-TK77	4L-TK77	4L Tank 77 PK 3	17-A-083
4L-TK78	4L-TK78	4L Tank 78 PK 4	17-A-084
4L-TK81	4L-TK81	4L Tank 81 GR1	17-A-085
4L-TK82	4L-TK82	4L Tank 82 GR2	17-A-086
4L-TK83	4L-TK83	4L Tank 83 GR3	17-A-087
4L-TK85	4L-TK85	4L Tank 85	17-A-088
4L-TK86	4L-TK86	4L Tank 86	17-A-089
4L-TK129	4L-TK129	4L Tank 129	17-A-090
4L-TK130	4L-TK130	4L Tank 130	17-A-091
4L-TK131A	4L-TK131A	4L Tank 131A	17-A-092
4L-TK131B	4L-TK131B	4L Tank 131B	17-A-093
4L-Screener1	4L-Screener1	4L Vibratory Screener 1	17-A-094
4L-Screener2	4L-Screener2	4L Vibratory Screener 2	17-A-095
4L-OS1	4L-OS1	4L Oversize Tank 1 for Vibratory Screener	17-A-096

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
4L-OS2	4L-OS2	4L Oversize Tank 2 for Vibratory Screener	17-A-097
EP4L-BT1	4L-BT1	4L Box Tank 1 for Vibratory Screener	17-A-098
EP4L-BT2	4L-BT2	4L Box Tank 2 for Vibratory Screener	17-A-099
4L-PR1	4L-PR1	4L Packing Reservoir	17-A-100-S1
4LSF-PL	4LSF-PL	4L and South Flowable Packaging Line	17-A-101-S1
B14-LO1	B14-LO1	4L and South Flowable Product Loadout	17-A-102
4L-EL	4L-EL	Equipment Leaks for the 4L Processing Line	17-A-208
Area46-HR	Area46-HR	Area 46 Haul Roads	14-A-537
B11-EL	B11-EL	Building 11 Equipment Leaks	17-A-200-S1
B11-LO	B11-LO	Building 11 Product Tanker Loadout	17-A-178-S2
	B11-Packaging	Product Packaging and mini bulk load out	
B11-TF-1	TK1	Building 11 Storage Tank 1	17-A-179-S1
B11-TF-2	TK2	Building 11 Storage Tank 2	17-A-180-S1
B11-TF-3	TK3	Building 11 Storage Tank 3	17-A-181-S1
B11-TF-4	TK4	Building 11 Storage Tank 4	17-A-182-S1
B11-TF-5	TK5	Building 11 Storage Tank 5	17-A-183-S1
B11-TF-6	TK6	Building 11 Storage Tank 6	17-A-184-S1
B11-TF-7	TK7	Building 11 Storage Tank 7	17-A-185-S1
B11-TF-8	TK8	Building 11 Storage Tank 8	17-A-186-S1
B11-TF-9	TK9	Building 11 Storage Tank 9	17-A-187-S1
B11TF-10	TK10	Building 11 Storage Tank 10	17-A-188-S1
B11TF-11	TK11	Building 11 Storage Tank 11	17-A-189-S1
B11TF-12	TK12	Building 11 Storage Tank 12	17-A-190-S1
B11TF-13	TK13	Building 11 Storage Tank 13	17-A-191-S1
B11TF-14	TK14	Building 11 Storage Tank 14	17-A-192-S1
B11TF-15	TK15	Building 11 Storage Tank 15	17-A-193-S1
B11TF-16	TK16	Building 11 Storage Tank 16	17-A-194-S1
B11TF-17	TK17	Building 11 Storage Tank 17	17-A-195-S1
B11TF-122	TK122	Building 11 Storage Tank 122	17-A-196-S1
B11TF-123	TK123	Building 11 Storage Tank 123	17-A-197-S1
B11TF-124	TK124	Building 11 Storage Tank 124	17-A-198-S1
B11TF-125	TK125	Building 11 Storage Tank 125	17-A-199-S1
B12-EL	B12-EL	Equipment Leaks for the B12 Packaging Line	17-A-705-S1
B12-PL1	B12-PL1	Building 12 Packaging Line	17-A-704-S1
B12-PR1	B12-PR1	Building 12 Packaging Reservoir	17-A-703-S1
B13-EL	B13-EL	Building 13 Equipment Leaks	17-A-203-S2
BT3TF	TK18- TK35	Building 13 Storage Tanks	17-A-202-S2
B13-LO-13-1	B13-LO-13-1	Building 13 Truck Loadout 1	17-A-201-S1
B13-LO-13-2	B13-LO-13-2	Building 13 Truck Loadout 2	19-A-424
B13-LO-13-3	B13-LO-13-3	Building 13 Truck Loadout 3	19-A-425

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B13-LO-13-4	B13-LO-13-4	Building 13 Truck Loadout 4	19-A-426
B13-LO-13-5	B13-LO-13-5	Building 13 Truck Loadout 5	19-A-427
B13-LO-13-6	B13-LO-13-6	Building 13 Truck Loadout 6	19-A-428
B13-LO13-7	B13-LO13-7	Building 13 Hose Loadout 1	19-A-441
B13-LO13-8	B13-LO13-8	Building 13 Hose Loadout 2	19-A-442
B15-N	TK40	Building 15 Storage Tank 40	18-A-413
	TK41	Building 15 Storage Tank 41	
	TK42	Building 15 Storage Tank 42	
	TK43	Building 15 Storage Tank 43	
	TK44	Building 15 Storage Tank 44	
	TK45	Building 15 Storage Tank 45	
	TK46	Building 15 Storage Tank 46	
	TK47	Building 15 Storage Tank 47	
	TK48	Building 15 Storage Tank 48	
	TK49	Building 15 Storage Tank 49	
	TK50	Building 15 Storage Tank 50	
B15-E	TK51	Building 15 Storage Tank 51	18-A-414
	TK52	Building 15 Storage Tank 52	
	TK53	Building 15 Storage Tank 53	
	TK54	Building 15 Storage Tank 54	
	TK55	Building 15 Storage Tank 55	
	TK56	Building 15 Storage Tank 56	
	TK57	Building 15 Storage Tank 57	
	TK58	Building 15 Storage Tank 58	
	TK59	Building 15 Storage Tank 59	
	TK60	Building 15 Storage Tank 60	
	TK61	Building 15 Storage Tank 61	
B15-EL	B15-EL	Building 15 Equipment Leaks	18-A-415
		Building 15 Equipment Leaks	18-A-415
B15-LO-1	B15-LO-1	Building 15 Loadout 1	18-A-410
B15-LO-2	B15-LO-2	Building 15 Loadout 2	18-A-411
B15-Hose	B15-Hose	Building 15 Loadout Hose	18-A-412
B17-LO 17-1	B17-LO 17-1	Building 17 Truck Loadout 1	17-A-204-S1
B17-LO 17-2	B17-LO 17-2	Building 17 Truck Loadout 2	19-A-429
B17-LO 17-3	B17-LO 17-3	Building 17 Truck Loadout 3	19-A-430
B17-LO 17-4	B17-LO 17-4	Building 17 Truck Loadout 4	19-A-431

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EC17-PR1	EC17-PR1	Building 17 Packing Reservoir	19-A-092
EC17-PL1	EC17-PL1	Building 17 Packaging Line	19-A-093
BT17TF-East	TK99-TK112	Building 17 Storage East Storage Tanks	17-A-205-S1
B17TF-West	TK113-TK119	Building 17 Storage West Storage Tanks	17-A-206-S1
B17-EL	B17-EL	Building 17 Equipment Leaks	17-A-207
B21-E	TK132	Building 21 Storage Tank 132	18-A-341
	TK133	Building 21 Storage Tank 133	
	TK134	Building 21 Storage Tank 134	
	TK135	Building 21 Storage Tank 135	
	TK136	Building 21 Storage Tank 136	
	TK137	Building 21 Storage Tank 137	
	TK138	Building 21 Storage Tank 138	
B21-F	TK139	Building 21 Storage Tank 139	18-A-342
	TK140	Building 21 Storage Tank 140	
	TK141	Building 21 Storage Tank 141	
	TK142	Building 21 Storage Tank 142	
	TK143	Building 21 Storage Tank 143	
	TK144	Building 21 Storage Tank 144	
	TK145	Building 21 Storage Tank 145	
B21-G	TK146	Building 21 Storage Tank 146	18-A-343
	TK147	Building 21 Storage Tank 147	
	TK148	Building 21 Storage Tank 148	
	TK149	Building 21 Storage Tank 149	
	TK150	Building 21 Storage Tank 150	
	TK151	Building 21 Storage Tank 151	
	TK152	Building 21 Storage Tank 152	
B21-H	TK153	Building 21 Storage Tank 153	18-A-344
	TK154	Building 21 Storage Tank 154	
	TK155	Building 21 Storage Tank 155	
	TK156	Building 21 Storage Tank 156	
	TK157	Building 21 Storage Tank 157	
	TK158	Building 21 Storage Tank 158	
	TK159	Building 21 Storage Tank 159	
B21-B	TK160	Building 21 Storage Tank 160	18-A-345
	TK161	Building 21 Storage Tank 161	
	TK162	Building 21 Storage Tank 162	
	TK163	Building 21 Storage Tank 163	
	TK164	Building 21 Storage Tank 164	
B21-C	TK165	Building 21 Storage Tank 165	18-A-346
	TK166	Building 21 Storage Tank 166	
	TK167	Building 21 Storage Tank 167	
	TK168	Building 21 Storage Tank 168	
	TK169	Building 21 Storage Tank 169	
B21-A	TK170	Building 21 Storage Tank 170	18-A-347

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	TK171	Building 21 Storage Tank 171	
	TK172	Building 21 Storage Tank 172	
	TK173	Building 21 Storage Tank 173	
	TK174	Building 21 Storage Tank 174	
B21-D	TK175	Building 21 Storage Tank 175	18-A-348
	TK176	Building 21 Storage Tank 176	
	TK177	Building 21 Storage Tank 177	
	TK178	Building 21 Storage Tank 178	
	TK179	Building 21 Storage Tank 179	
B21-EL	B21-EL	Building 21 Equipment Leaks	18-A-337
B25-EL	B25-EL	Building 25 Equipment Leaks	18-A-338
B26-EL	B26-EL	Building 26 Equipment Leaks	18-A-339
B27-EL	B27-EL	Building 27 Equipment Leaks	18-A-340
B21-LO1	B21-LO1	Building 21 Loadout 1	18-A-349
B21-LO2	B21-LO2	Building 21 Loadout 2	18-A-350
B21-LO3	B21-LO3	Building 21 Loadout 3	18-A-351
B21-LO4	B21-LO4	Building 21 Loadout 4	18-A-352
B21-LO5	B21-LO5	Building 21 Loadout 5	18-A-353
B21-LO6	B21-LO6	Building 21 Loadout 6	18-A-354
B21-LO7	B21-LO7	Building 21 Loadout 7	18-A-355
B21-LO8	B21-LO8	Building 21 Loadout 8	18-A-356
B21-Packaging	B21-Packaging	Building 21 Packaging	18-A-357
B21-Vent 1	TK332	Building 21 Process Area Tank 332	18-A-358
	TK333	Building 21 Process Area Tank 333	
	TK334	Building 21 Process Area Tank 334	
	TK335	Building 21 Process Area Tank 335	
	TK336	Building 21 Process Area Tank 336	
	TK337	Building 21 Process Area Tank 337	
	TK338	Building 21 Process Area Tank 338	
	TK339	Building 21 Process Area Tank 339	
	TK340	Building 21 Process Area Tank 340	
	TK341	Building 21 Process Area Tank 341	
	TK342	Building 21 Process Area Tank 342	
	TK343	Building 21 Process Area Tank 343	
	TK344	Building 21 Process Area Tank 344	
TK345	Building 21 Process Area Tank 345		
B21PA-Pack 1	B21PA-Pack 1	Building 21 Area Packaging 1	18-A-359
TK338-SA	TK-338-SA	Building 21 Process Area Tank 338 Solids Addition Port	19-A-352
TK345-SA	TK345-SA	Building 21 Process Area Tank 345 Solids addition Port	19-A-353
B21PA-Pack 2	B21PA-Pack 1	Building 21 Area Packaging 2	18-A-360

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B21PA-Pack 3	B21PA-Pack 1	Building 21 Area Packaging 3	18-A-361
B24-EL	B24-EL	Building 24 Equipment Leaks	18-A-730
B24-LO-1	B24-LO-1	Building 24 Loadout 1	18-A-737
B24-LO-2	B24-LO-2	Building 24 Loadout 2	18-A-738
B24-LO-3	B24-LO-3	Building 24 Loadout 3	18-A-739
B24-LO-4	B24-LO-4	Building 24 Loadout 4	18-A-740
B24-LO-5	B24-LO-5	Building 24 Loadout 5	18-A-741
B24-LO-6	B24-LO-6	Building 24 Loadout 6	18-A-742
B24-Vent1	TK180	Building 24 Storage Tank 180	18-A-731
	TK181	Building 24 Storage Tank 181	
	TK182	Building 24 Storage Tank 182	
	TK183	Building 24 Storage Tank 183	
	TK184	Building 24 Storage Tank 184	
	TK185	Building 24 Storage Tank 185	
	TK186	Building 24 Storage Tank 186	
B24-Vent2	TK187	Building 24 Storage Tank 187	18-A-732
	TK188	Building 24 Storage Tank 188	
	TK189	Building 24 Storage Tank 189	
	TK190	Building 24 Storage Tank 190	
	TK191	Building 24 Storage Tank 191	
	TK192	Building 24 Storage Tank 192	
	TK193	Building 24 Storage Tank 193	
B24-Vent3	TK194	Building 24 Storage Tank 194	18-A-733
	TK195	Building 24 Storage Tank 195	
	TK196	Building 24 Storage Tank 196	
	TK197	Building 24 Storage Tank 197	
	TK198	Building 24 Storage Tank 198	
	TK199	Building 24 Storage Tank 199	
	TK200	Building 24 Storage Tank 200	
B24-Vent4	TK201	Building 24 Storage Tank 201	18-A-734
	TK202	Building 24 Storage Tank 202	
	TK203	Building 24 Storage Tank 203	
	TK204	Building 24 Storage Tank 204	
	TK205	Building 24 Storage Tank 205	
	TK206	Building 24 Storage Tank 206	
	TK207	Building 24 Storage Tank 207	
B24-Vent5	TK208	Building 24 Storage Tank 208	18-A-735
	TK209	Building 24 Storage Tank 209	
	TK210	Building 24 Storage Tank 210	
	TK211	Building 24 Storage Tank 211	
	TK212	Building 24 Storage Tank 212	
	TK213	Building 24 Storage Tank 213	
	TK214	Building 24 Storage Tank 214	
B24-Vent6	TK215	Building 24 Storage Tank 215	18-A-736
	TK216	Building 24 Storage Tank 216	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	TK217	Building 24 Storage Tank 217	
	TK218	Building 24 Storage Tank 218	
	TK219	Building 24 Storage Tank 219	
	TK220	Building 25 Storage Tank 220	
	TK221	Building 25 Storage Tank 221	
B25-W	TK222	Building 25 Storage Tank 222	18-A-307-S1
	TK223	Building 25 Storage Tank 223	
	TK224	Building 25 Storage Tank 224	
	TK225	Building 25 Storage Tank 225	
	TK226	Building 25 Storage Tank 226	
	TK227	Building 25 Storage Tank 227	
	TK228	Building 25 Storage Tank 228	
	TK229	Building 25 Storage Tank 229	
	TK230	Building 25 Storage Tank 230	
	TK231	Building 25 Storage Tank 231	
B25-E	TK232	Building 25 Storage Tank 232	18-A-308-S1
	TK233	Building 25 Storage Tank 233	
	TK234	Building 25 Storage Tank 234	
	TK235	Building 25 Storage Tank 235	
	TK236	Building 25 Storage Tank 236	
	TK237	Building 25 Storage Tank 237	
	TK238	Building 25 Storage Tank 238	
	TK239	Building 25 Storage Tank 239	
	TK240	Building 25 Storage Tank 240	
	TK241	Building 25 Storage Tank 241	
B25-LO-1	B25-LO-1	Building 25 Loadout 1	18-A-309
B25-LO-2	B25-LO-2	Building 25 Loadout 2	18-A-310
B25-LO-3	B25-LO-3	Building 25 Loadout 3	18-A-311
B25-LO-4	B25-LO-4	Building 25 Loadout 4	18-A-312
B25-Packaging	B25-Packaging	Building 25 Packaging	18-A-313
B26-W	TK242	Building 26 Storage Tank 242	18-A-314-S1
	TK243	Building 26 Storage Tank 243	
	TK244	Building 26 Storage Tank 244	
	TK245	Building 26 Storage Tank 245	
	TK246	Building 26 Storage Tank 246	
	TK247	Building 26 Storage Tank 247	
	TK248	Building 26 Storage Tank 248	
	TK249	Building 26 Storage Tank 249	
	TK250	Building 26 Storage Tank 250	
	TK251	Building 26 Storage Tank 251	
	TK252	Building 26 Storage Tank 252	
	TK253	Building 26 Storage Tank 253	
B26-E	TK254	Building 26 Storage Tank 254	18-A-315-S1
	TK255	Building 26 Storage Tank 255	
	TK256	Building 26 Storage Tank 256	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	TK257	Building 26 Storage Tank 257	
	TK258	Building 26 Storage Tank 258	
	TK259	Building 26 Storage Tank 259	
	TK260	Building 26 Storage Tank 260	
	TK261	Building 26 Storage Tank 261	
	TK262	Building 26 Storage Tank 262	
	TK263	Building 26 Storage Tank 263	
	TK264	Building 26 Storage Tank 264	
	TK265	Building 26 Storage Tank 265	
	TK266	Building 26 Storage Tank 266	
	TK267	Building 26 Storage Tank 267	
	TK268	Building 26 Storage Tank 268	
	TK269	Building 26 Storage Tank 269	
	TK270	Building 26 Storage Tank 270	
	TK271	Building 26 Storage Tank 271	
	TK272	Building 26 Storage Tank 272	
	TK273	Building 26 Storage Tank 273	
	TK274	Building 26 Storage Tank 274	
	TK275	Building 26 Storage Tank 275	
	TK276	Building 26 Storage Tank 276	
	TK277	Building 26 Storage Tank 277	
B26-LO-1	B26-LO-1	Building 26 Loadout 1	18-A-316
B26-LO-2	B26-LO-2	Building 26 Loadout 2	18-A-317
B26-LO-3	B26-LO-3	Building 26 Loadout 3	18-A-318
B26-LO-4	B26-LO-4	Building 26 Loadout 4	18-A-319
B26-LO-5	B26-LO-5	Building 26 Loadout 5	18-A-320
B26-LO-6	B26-LO-6	Building 26 Loadout 6	18-A-321
B26-LO-7	B26-LO-7	Building 26 Loadout 7	18-A-404
B26-LO-8	B26-LO-8	Building 26 Loadout 8	18-A-405
B26-LO-9	B26-LO-9	Building 26 Loadout 9	19-A-141
B26-Packaging 1	B26-Packaging 1	Building 26 Packaging 1	18-A-322
B26-Packaging 2	B26-Packaging 2	Building 26 Packaging 2	18-A-323
B27-LO-1	B27-LO-1	Building 27 Loadout 1	18-A-330
B27-LO-2	B27-LO-2	Building 27 Loadout 2	18-A-331
B27-LO-3	B27-LO-3	Building 27 Loadout 3	18-A-332
B27-LO-4	B27-LO-4	Building 27 Loadout 4	18-A-333
B27-LO-5	B27-LO-5	Building 27 Loadout 5	18-A-334
B27-LO-6	B27-LO-6	Building 27 Loadout 6	18-A-335
B27-Packaging	B27-Packaging	Building 27 Packaging	18-A-336
B27-W(S)	TK278	Building 27 Storage Tank 278	18-A-324
	TK279	Building 27 Storage Tank 279	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	TK280	Building 27 Storage Tank 280	
	TK281	Building 27 Storage Tank 281	
	TK282	Building 27 Storage Tank 282	
	TK283	Building 27 Storage Tank 283	
B27-W(N)	TK284	Building 27 Storage Tank 284	18-A-325
	TK285	Building 27 Storage Tank 285	
	TK286	Building 27 Storage Tank 286	
	TK287	Building 27 Storage Tank 287	
	TK288	Building 27 Storage Tank 288	
	TK289	Building 27 Storage Tank 289	
B27-S	TK290	Building 27 Storage Tank 290	18-A-326
	TK291	Building 27 Storage Tank 291	
	TK292	Building 27 Storage Tank 292	
	TK293	Building 27 Storage Tank 293	
	TK294	Building 27 Storage Tank 294	
	TK295	Building 27 Storage Tank 295	
B27-N	TK296	Building 27 Storage Tank 296	18-A-327
	TK297	Building 27 Storage Tank 297	
	TK298	Building 27 Storage Tank 298	
	TK299	Building 27 Storage Tank 299	
	TK300	Building 27 Storage Tank 300	
	TK301	Building 27 Storage Tank 301	
B27-E(N)	TK302	Building 27 Storage Tank 302	18-A-328-
	TK303	Building 27 Storage Tank 303	
	TK304	Building 27 Storage Tank 304	
	TK305	Building 27 Storage Tank 305	
	TK306	Building 27 Storage Tank 306	
	TK307	Building 27 Storage Tank 307	
B27-E(S)	TK308	Building 27 Storage Tank 308	18-A-329
	TK309	Building 27 Storage Tank 309	
	TK310	Building 27 Storage Tank 310	
	TK311	Building 27 Storage Tank 311	
	TK312	Building 27 Storage Tank 312	
	TK313	Building 27 Storage Tank 313	
B28-W	TK350	Building 28 Storage Tank 350	19-A-039
	TK351	Building 28 Storage Tank 351	
	TK352	Building 28 Storage Tank 352	
	TK353	Building 28 Storage Tank 353	
	TK354	Building 28 Storage Tank 354	
	TK355	Building 28 Storage Tank 355	
	TK356	Building 28 Storage Tank 356	
	TK357	Building 28 Storage Tank 357	
	TK358	Building 28 Storage Tank 358	
	TK359	Building 28 Storage Tank 359	
	TK360	Building 28 Storage Tank 360	
	TK361	Building 28 Storage Tank 361	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B28-E	TK362	Building 28 Storage Tank 362	19-A-040
	TK363	Building 28 Storage Tank 363	
	TK364	Building 28 Storage Tank 364	
	TK365	Building 28 Storage Tank 365	
	TK366	Building 28 Storage Tank 366	
	TK367	Building 28 Storage Tank 367	
	TK368	Building 28 Storage Tank 368	
	TK369	Building 28 Storage Tank 369	
	TK370	Building 28 Storage Tank 370	
	TK371	Building 28 Storage Tank 371	
	TK372	Building 28 Storage Tank 372	
	TK373	Building 28 Storage Tank 373	
	TK374	Building 28 Storage Tank 374	
	TK375	Building 28 Storage Tank 375	
	TK376	Building 28 Storage Tank 376	
	TK377	Building 28 Storage Tank 377	
	TK378	Building 28 Storage Tank 378	
	TK379	Building 28 Storage Tank 379	
	TK380	Building 28 Storage Tank 380	
	TK381	Building 28 Storage Tank 381	
TK382	Building 28 Storage Tank 382		
TK383	Building 28 Storage Tank 383		
TK384	Building 28 Storage Tank 384		
TK385	Building 28 Storage Tank 385		
B28-EL	B28-EL	Building 28 Equipment Leaks	18-A-707
B31-EL	B31-EL	Building 31 Equipment Leaks	18-A-708
B28-LO-1	B28-LO-1	Building 28 Loadout 1	18-A-720
B28-LO-2	B28-LO-2	Building 28 Loadout 2	18-A-721
B28-LO-3	B28-LO-3	Building 28 Loadout 3	18-A-722
B28-LO-4	B28-LO-4	Building 28 Loadout 4	18-A-723
B28-LO-5	B28-LO-5	Building 28 Loadout 5	18-A-724
B28-LO-6	B28-LO-6	Building 28 Loadout 6	18-A-725
B28-LO-7	B28-LO-7	Building 28 Loadout 7	18-A-726
B28-Hose	B28-Hose	Building 28 Loadout Hose	18-A-727
B29-EL	B29-EL	Building 29 Equipment Leaks	18-A-743
B29-HR	B29-HR	Building 29 Haul Roads	19-A-065
B29-LO-1	B29-LO-1	Building 29 Loadout 1	18-A-744
B29-LO-2	B29-LO-2	Building 29 Loadout 2	18-A-745
B29-LO-3	B29-LO-3	Building 29 Loadout 3	18-A-746
B29-LO-4	B29-LO-4	Building 29 Loadout 4	18-A-747
B29-LO-5	B29-LO-5	Building 29 Loadout 5	18-A-748
B29-LO-6	B29-LO-6	Building 29 Loadout 6	18-A-749
B29-LO-7	B29-LO-7	Building 29 Loadout 7	18-A-750
B29-LO-8	B29-LO-8	Building 29 Loadout 8	18-A-751
B29-LO-9	B29-LO-9	Building 29 Loadout 9	18-A-752
B29-LO-10	B29-LO-10	Building 29 Loadout 10	18-A-753

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B29-Hose	B29-Hose	Building 29 Loadout Hose	18-A-754
B29 Vent1	TK636	Building 29 Storage Tank 636	18-A-755
	TK637	Building 29 Storage Tank 637	
	TK638	Building 29 Storage Tank 638	
	TK639	Building 29 Storage Tank 639	
	TK640	Building 29 Storage Tank 640	
	TK641	Building 29 Storage Tank 641	
	TK642	Building 29 Storage Tank 642	
	TK643	Building 29 Storage Tank 643	
	TK644	Building 29 Storage Tank 644	
	TK645	Building 29 Storage Tank 645	
B29 Vent2	TK646	Building 29 Storage Tank 646	18-A-756
	TK647	Building 29 Storage Tank 647	
	TK648	Building 29 Storage Tank 648	
	TK649	Building 29 Storage Tank 649	
	TK650	Building 29 Storage Tank 650	
	TK651	Building 29 Storage Tank 651	
	TK652	Building 29 Storage Tank 652	
	TK653	Building 29 Storage Tank 653	
B29 Vent3	TK654	Building 29 Storage Tank 654	18-A-757
	TK655	Building 29 Storage Tank 655	
	TK656	Building 29 Storage Tank 656	
	TK657	Building 29 Storage Tank 657	
	TK658	Building 29 Storage Tank 658	
	TK659	Building 29 Storage Tank 659	
	TK660	Building 29 Storage Tank 660	
	TK661	Building 29 Storage Tank 661	
	TK662	Building 29 Storage Tank 662	
B29 Vent4	TK663	Building 29 Storage Tank 663	18-A-758
	TK664	Building 29 Storage Tank 664	
	TK665	Building 29 Storage Tank 665	
	TK666	Building 29 Storage Tank 666	
	TK667	Building 29 Storage Tank 667	
	TK668	Building 29 Storage Tank 668	
	TK669	Building 29 Storage Tank 669	
	TK670	Building 29 Storage Tank 670	
	TK671	Building 29 Storage Tank 671	
	TK672	Building 29 Storage Tank 672	
B29 Vent5	TK673	Building 29 Storage Tank 673	18-A-759
	TK674	Building 29 Storage Tank 674	
	TK675	Building 29 Storage Tank 675	
	TK676	Building 29 Storage Tank 676	
	TK677	Building 29 Storage Tank 677	
B29 Vent5	TK678	Building 29 Storage Tank 678	18-A-759
	TK679	Building 29 Storage Tank 679	
	TK680	Building 29 Storage Tank 680	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	TK681	Building 29 Storage Tank 681	
	TK682	Building 29 Storage Tank 682	
	TK683	Building 29 Storage Tank 683	
	TK684	Building 29 Storage Tank 684	
	TK685	Building 29 Storage Tank 685	
B31-E	TK600	Building 31 Storage Tank 600	18-A-709
	TK601	Building 31 Storage Tank 601	
	TK602	Building 31 Storage Tank 602	
	TK603	Building 31 Storage Tank 603	
	TK604	Building 31 Storage Tank 604	
	TK605	Building 31 Storage Tank 605	
	TK606	Building 31 Storage Tank 606	
	TK607	Building 31 Storage Tank 607	
	TK608	Building 31 Storage Tank 608	
	TK609	Building 31 Storage Tank 609	
	TK610	Building 31 Storage Tank 610	
	TK611	Building 31 Storage Tank 611	
	TK612	Building 31 Storage Tank 612	
	TK613	Building 31 Storage Tank 613	
	TK614	Building 31 Storage Tank 614	
	TK615	Building 31 Storage Tank 615	
	TK616	Building 31 Storage Tank 616	
	TK617	Building 31 Storage Tank 617	
	TK618	Building 31 Storage Tank 618	
	TK619	Building 31 Storage Tank 619	
TK620	Building 31 Storage Tank 620		
TK621	Building 31 Storage Tank 621		
TK622	Building 31 Storage Tank 622		
TK623	Building 31 Storage Tank 623		
B31-W	TK624	Building 31 Storage Tank 624	18-A-710
	TK625	Building 31 Storage Tank 625	
	TK626	Building 31 Storage Tank 626	
	TK627	Building 31 Storage Tank 627	
	TK628	Building 31 Storage Tank 628	
	TK629	Building 31 Storage Tank 629	
	TK630	Building 31 Storage Tank 630	
	TK631	Building 31 Storage Tank 631	
	TK632	Building 31 Storage Tank 632	
	TK633	Building 31 Storage Tank 633	
	TK634	Building 31 Storage Tank 634	
	TK635	Building 31 Storage Tank 635	
B31-LO-1	B31-LO-1	Building 31 Loadout 1	18-A-711
B31-LO-2	B31-LO-2	Building 31 Loadout 2	18-A-712
B31-LO-3	B31-LO-3	Building 31 Loadout 3	18-A-713
B31-LO-4	B31-LO-4	Building 31 Loadout 4	18-A-714
B31-LO-5	B31-LO-5	Building 31 Loadout 5	18-A-715

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B31-LO-6	B31-LO-6	Building 31 Loadout 6	18-A-716
B31-Hose	B31-Hose	Building 31 Loadout Hose	18-A-717
B36TF-Tank800	B36TF-Tank800	Building 36 Storage Tank 800	19-A-524
B36TF-Tank801	B36TF-Tank801	Building 36 Storage Tank 801	19-A-525
B36TF-Tank802	B36TF-Tank802	Building 36 Storage Tank 802	19-A-526
B36TF-Tank803	B36TF-Tank803	Building 36 Storage Tank 803	19-A-527
B36TF-Tank804	B36TF-Tank804	Building 36 Storage Tank 804	19-A-528
B36TF-Tank805	B36TF-Tank805	Building 36 Storage Tank 805	19-A-529
B36TF-Tank806	B36TF-Tank806	Building 36 Storage Tank 806	19-A-530
B36TF-Tank807	B36TF-Tank807	Building 36 Storage Tank 807	19-A-531
B36TF-Tank808	B36TF-Tank808	Building 36 Storage Tank 808	19-A-532
B36TF-Tank809	B36TF-Tank809	Building 36 Storage Tank 809	19-A-533
B36TF-Tank810	B36TF-Tank810	Building 36 Storage Tank 810	19-A-534
B36TF-Tank811	B36TF-Tank811	Building 36 Storage Tank 811	19-A-535
B36TF-Tank812	B36TF-Tank812	Building 36 Storage Tank 812	19-A-536
B36TF-Tank813	B36TF-Tank813	Building 36 Storage Tank 813	19-A-537
B36TF-Tank814	B36TF-Tank814	Building 36 Storage Tank 814	19-A-538
B36TF-Tank815	B36TF-Tank815	Building 36 Storage Tank 815	19-A-539
B36TF-Tank816	B36TF-Tank816	Building 36 Storage Tank 816	19-A-540
B36TF-Tank817	B36TF-Tank817	Building 36 Storage Tank 817	19-A-541
B36TF-Tank818	B36TF-Tank818	Building 36 Storage Tank 818	19-A-542
B36TF-Tank819	B36TF-Tank819	Building 36 Storage Tank 819	19-A-543
B36TF-Tank820	B36TF-Tank820	Building 36 Storage Tank 820	19-A-544
B36TF-Tank821	B36TF-Tank821	Building 36 Storage Tank 821	19-A-545

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B36TF-Tank822	B36TF-Tank822	Building 36 Storage Tank 822	19-A-546
B36TF-Tank823	B36TF-Tank823	Building 36 Storage Tank 823	19-A-547
B36TF-Tank824	B36TF-Tank824	Building 36 Storage Tank 824	19-A-548
B36TF-Tank825	B36TF-Tank825	Building 36 Storage Tank 825	19-A-549
B36TF-Tank826	B36TF-Tank826	Building 36 Storage Tank 826	19-A-550
B36-LO-1	B36-LO-1	Building 36 Loadout 1	19-A-551
B36-LO-2	B36-LO-2	Building 36 Loadout 2	19-A-552
B36-LO-3	B36-LO-3	Building 36 Loadout 3	19-A-553
B36-LO-Pack	B36-LO-Pack	Building 36 Packaging	19-A-554
B36-EL	B36-EL	Building 36 Equipment Leaks	19-A-555
B37-1	TK882	Building 37 Tank 882	02-A-726-S2
	TK890	Building 37 Tank 890	
	TK890-BBU	Building 37 Tank 890 – solids addition	
	TK890-BBS	Building 37 Tank 890 – solids addition	
	TK891	Building 37 Tank 891	
	TK891-BBU	Building 37 Tank 891 – solids addition	
	TK891-BBS	Building 37 Tank 891 – solids addition	
	TK892	Building 37 Tank 892	
	TK892-BBU	Building 37 Tank 892 – solids addition	
	TK892-BBS	Building 37 Tank 892 – solids addition	
	TK893	Building 37 Tank 893	
	TK893-BBU	Building 37 Tank 893 – solids addition	
	TK893-BBS	Building 37 Tank 893 – solids addition	
	TK953	Building 37 Tank 953	
	TK953-BBU	Building 37 Tank 953 – solids addition	
	TK953-BBS	Building 37 Tank 953 – solids addition	
	TK954	Building 37 Tank 954	
	TK954-BBU	Building 37 Tank 954 – solids addition	
TK954-BBS	Building 37 Tank 954 – solids addition		

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B37-2	TK870	Building 37 Tank 870	02-A-727-S2
	TK871	Building 37 Tank 871	
	TK874	Building 37 Tank 874	
	TK875	Building 37 Tank 875	
	TK846	Building 37 Tank 876	
	TK877	Building 37 Tank 877	
	TK878	Building 37 Tank 878	
	TK879	Building 37 Tank 879	
	TK880	Building 37 Tank 880	
	TK887	Building 37 Tank 881	
	TK883	Building 37 Tank 883	
	TK884	Building 37 Tank 884	
	TK885	Building 37 Tank 885	
	TK886	Building 37 Tank 886	
	TK887	Building 37 Tank 887	
	TK888	Building 37 Tank 888	
	TK889	Building 37 Tank 889	
	TK895	Building 37 Tank 895	
	TK896	Building 37 Tank 896	
	TK947	Building 37 Tank 947	
	TK948	Building 37 Tank 948	
	TK949	Building 37 Tank 949	
	TK950	Building 37 Tank 950	
TK951	Building 37 Tank 951		
TK952	Building 37 Tank 952		
TK955	Building 37 Tank 955		
TK956	Building 37 Tank 956		
TK957	Building 37 Tank 957		
B37-3	TK872	Building 37 Tank 872	02-A-728-S1
	TK873	Building 37 Tank 873	
B37-4	TK827- TK868	Building 37 Tank Farm	02-A-729-S1
EP37-BoxA	37-BoxA	Building 37 Box Tank for System A Screen	18-A-018
EP37-ScreenA	EU37-ScreenA	Building 37 Vibratory Screener System A	18-A-019
EP37-BoxC	37-BoxC	Building 37 Box Tank for System A Screen	18-A-020
EP37-ScreenC	EU37-ScreenC	Building 37 Vibratory Screener System C	18-A-021
EP37-Pack	EU-37 Pack	Building 37 Packaging	18-A-022
882-LA	882-LA	Building 37 Tank 882 Liquid Addition	19-A-340
890-LA	890-LA	Building 37 Tank 890 Liquid Addition	19-A-341
891-LA	891-LA	Building 37 Tank 891 Liquid Addition	19-A-342
892-LA	892-LA	Building 37 Tank 892 Liquid Addition	19-A-343
893-LA	893-LA	Building 37 Tank 893 Liquid Addition	19-A-344
953-LA	953-LA	Building 37 Tank 953 Liquid Addition	19-A-345
954-LA	954-LA	Building 37 Tank 954 Liquid Addition	19-A-346

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
883-LA	883-LA	Building 37 Tank 883 Liquid Addition	19-A-347
884-SA	884-SA	Building 37 Tank 884 Solids Addition	19-A-348
884-LA	884-LA	Building 37 Tank 884 Liquid Addition	19-A-349
885-LA	885-LA	Building 37 Tank 885 Liquid Addition	19-A-350
37-DH	37-DH	Building 37 Drum Heating	19-A-351
EP37-LO-1	EU37-LO-1	Building 37 Loadout 1	18-A-023
EP37-LO-2	EU37-LO-2	Building 37 Loadout 2	18-A-024
EP37-LO-3	EU37-LO-3	Building 37 Loadout 3	18-A-025
EP37-LO-4	EU37-LO-4	Building 37 Loadout 4	18-A-026
EP37-LO-5	EU37-LO-5	Building 37 Loadout 5	18-A-027
EP37-LO-6	EU37-LO-6	Building 37 Loadout 6	18-A-028
B37-EL	B37-EL	Building 37 Equipment Leaks	18-A-005
37-HR	37-HR	Building 37 Haul Roads	18-A-017
37-TK882BBS	37-TK882BBS	Building 37 Tank 882 Batching Station	18-A-001
37-TK883BBS	37-TK883BBS	Building 37 Tank 883 Batching Station	18-A-002
37-TK995BBS	37-TK995BBS	Building 37 Tank 995 Batching Station	18-A-003
39-LO-1	39-LO-1	Building 39 Loadout 1	18-A-009
39-LO-2	39-LO-2	Building 39 Loadout 2	18-A-010
39-LO-3	39-LO-3	Building 39 Loadout 3	18-A-011
39-LO-4	39-LO-4	Building 39 Loadout 4	18-A-012
39-LO-5	39-LO-5	Building 39 Loadout 5	18-A-013
39-LO-6	39-LO-6	Building 39 Loadout 6	18-A-014
39-LO-7	39-LO-7	Building 39 Loadout 7	18-A-015
39-LO-8	39-LO-8	Building 39 Loadout 8	18-A-016
B39-EL	B39-EL	Building 39 Equipment Leaks	18-A-006
B39TF-E	TK917-TK946	Building 39 Tank Farm East	18-A-007
B39TF-W	TK907-TK916	Building 39 Tank Farm West	18-A-008
TK-958	TK-958	Building 40 Storage Tank	14-A-526-S3
TK-959	TK-959	Building 40 Storage Tank	19-A-288-S1
TK-960	TK-960	Building 40 Storage Tank	19-A-289-S1
TK-961	TK-961	Building 40 Storage Tank	19-A-290-S1
TK-962	TK-962	Building 40 Storage Tank	19-A-291-S1
TK-963	TK-963	Building 40 Storage Tank	19-A-292-S1
TK-964	TK-964	Building 40 Storage Tank	19-A-293-S1
TK-965	TK-965	Building 40 Storage Tank	19-A-294-S1
TK-966	TK-966	Building 40 Storage Tank	19-A-295-S1
TK-967	TK-967	Building 40 Storage Tank	19-A-296-S1
TK-968	TK-968	Building 40 Storage Tank	19-A-297-S1
TK-969	TK-969	Building 40 Storage Tank	19-A-298-S1
TK-970	TK-970	Building 40 Storage Tank	19-A-299-S1
TK-971	TK-971	Building 40 Storage Tank	19-A-300-S1

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
TK-972	TK-972	Building 40 Storage Tank	19-A-301-S1
TK-973	TK-973	Building 40 Storage Tank	19-A-302-S1
TK-974	TK-974	Building 40 Storage Tank	19-A-303-S1
TK-975	TK-975	Building 40 Storage Tank	19-A-304-S1
TK-976	TK-976	Building 40 Storage Tank	19-A-305-S1
TK-977	TK-977	Building 40 Storage Tank	19-A-306-S1
TK-978	TK-978	Building 40 Storage Tank	19-A-307-S1
TK-979	TK-979	Building 40 Storage Tank	19-A-308-S1
TK-980	TK-980	Building 40 Storage Tank	19-A-309-S1
TK-981	TK-981	Building 40 Storage Tank	19-A-310-S1
TK-982	TK-982- TK-989	Building 40 Storage Tank	19-A-311-S1
B40-LO-1	B40-LO-1	Building 40 Truck Loadout 1	14-A-527-S3
B40-LO-2	B40-LO-2	Building 40 Truck Loadout 2	19-A-312-S1
B40-LO-3	B40-LO-3	Building 40 Truck Loadout 3	19-A-313-S1
B40-LO-4	B40-LO-4	Building 40 Truck Loadout 4	19-A-314-S1
B40-LO-5	B40-LO-5	Building 40 Truck Loadout 5	19-A-315-S1
B40-LO-6	B40-LO-6	Building 40 Truck Loadout 6	19-A-316-S1
B40-LO-7	B40-LO-7	Building 40 Truck Loadout 7	19-A-317-S1
B40-LO-8	B40-LO-8	Building 40 Truck Loadout 8	19-A-318-S1
B40-LO-9	B40-LO-9	Building 40 Rail Loadout 9	19-A-319-S1
B42-1	TK-4203	Premix Tank	14-A-528-S3
	TK-4203- U-03	Bulk Bag Unloader	
B42-3	B42-3	Building 42 Product Packaging	14-A-530-S3
B42-LO-1	B42-LO-1	Building 42 Truck Loadout 1	14-A-531-S4
B42-LO-2	B42-LO-2	Building 42 Truck Loadout 2	19-A-334-S1
B42-LO-3	B42-LO-3	Building 42 Truck Loadout 3	19-A-335-S1
B42-LO-4	B42-LO-4	Building 42 Truck Loadout 4	20-A-206
B42-LO-5	B42-LO-5	Building 42 Truck Loadout 5	20-A-207
B45-1	4501-U-01	Bulk Bag Unloader	14-A-532-S3
	4502-U-01	Bulk Bag Unloader	
	4503-U-01	Bulk Bag Unloader	
	TK-4501	Reactor 1	
	TK-4502	Reactor 2	
	TK-4503	Reactor3	
B45-2	TK-4504- TK4505	2 Bulk Storage Tanks	14-A-533-S4
	TK-4508	Scrubber Effluent Tank	
B46-1	TK-4601- TK4606	Building 46 Tank Farm: 6 Storage Tanks	14-A-534-S4
B46-LO-1	B46-LO-1	Building 46 Truck Loadout 1	14-A-535-S3
B46-LO-2	B46-LO-2	Building 46 Truck Loadout 2	19-A-336-S1
B46-LO-3	B46-LO-3	Building 46 Truck Loadout 3	19-A-337-S1
B46-LO-4	B46-LO-4	Building 46 Truck Loadout 4	19-A-338-S1

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
B46-LO-5	B46-LO-5	Building 46 Rail Loadout 1	19-A-339-S1
DCL	DCL	Solids Addition for Development Center for Liquids Plant	17-A-008-S2
DCL-1210	DCL-1040	Portable Vacuum Transfer for Development Center for Liquids Plant	17-A-009-S1
DCL-CV	DCL-CV	Process Tanks for Development Center for Liquids Plant	17-A-007-S1
DCL-EL	DCL-EL	Equipment Leak for Development Center for Liquids Plant	17-A-010
DF10	4421	Drum Dump	12-A-494-S4
	4401	Micro Ingredient System	
	4435	Drum Weighing Station	
	4402	Super Sac Batching	
	4433	Lump Breaker	
	4437	Pneumatic Conveyance	
	4445	Blender #1 Pneumatic Receiver	
	4404	Blender #1	
	4405	Hammer Mill Feed Screws	
	4406	Hammer Mill	
	4407	Blender #2	
	4408	Air Mill Feeder	
	4409	Air Mill	
	4438	Pneumatic Conveyance	
	4410	Blender #3	
	4411	Sifter	
	4447	RS Drum	
	4439	Pneumatic Conveyance	
	4412	BDF Hopper	
	4413	Schugi Feeder	
	4414	Flexomix	
	4415	Basket Granulator	
	4436	Pan Granulator	
	4416	Dryer	
4417	Bucket Elevator		
4418	Vibratory Screener		
4420	Finished Product Hopper		
4441	Packaging Equipment		
4440	Pneumatic Conveyance		
4419	Recycle Hopper		
44HVFS	HVFS		
DF-11	5000	Bulk Bag Unloader	14-A-555-S3
	5001	Drum Dump	
	5002	Batching Hopper	
	5004	Lump Breaker	
	5007	Drum Weighing Station	
	5008	Blender 1A	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	5009	Blender 1B	
	5010	Hammermill	
	5011	Blender #2	
	5055	Volumetric Feeder	
	5014	ACM	
	5018	Blender #3	
	5019	Rotary Sifter	
	5056	Pneumatic Conveyance	
	5021	Blender #4	
	5024	LIW Feeder and Hopper	
	5051	Kneader Feeder Auger	
	5026	Kneader Feeder	
	5028	Basket Extruder	
	5209	Radial Extruder	
	5050	Twin Dome Extruder	
	5030	Vibratory Fluid Bed Dryer	
	5035	Rotary Screener	
	5036	Vibratory Screener	
	5037	Finished Product Hopper	
	5038	Bulk Bag Filler/Drum-Filler	
	5039	Recycle Hopper	
	5049	Packaging Equipment	
	5053	Pneumatic Conveyance	
	5054	Pneumatic Conveyance	
	50HVFS	Housekeeping Vacuum System	
	5052	DF #11 Portable Lump Breaker	
DF#2	14005	Drum Weigh Station	86-A-116-S4
	14030	Drum Inverter	
	14032	Batch Bulk Bag Unloader	
	14000	Batching Station	
	14010	Batching Auger	
	14015	Pneumatic Conveyance	
	14060	Blender #1	
	14080	Hammer Mill	
	14090	Blender #2	
	14110	Mill Feed Auger	
	14008	Air Mill	
	14120	ACM	
	14125	Pneumatic Conveyance	
	14170	Blender #3	
	14290	Rotary Sifter	
	14292	Pneumatic Conveyance	
	14295	Pneumatic Conveyance	
	14300	BDF	
	14320	Kneader Auger	
	14331	Kneader	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	14332	Extruder	
	14350	Dryer	
	14355	Dryer Auger	
	14360	Pneumatic Conveyance	
	14380	Bucket Elevator	
	14370	Vibratory Screener	
	14385	Packaging Hopper	
	14390	Packaging Equipment	
	14395	Bulk Packaging Equipment	
	14375	Rework Auger	
	14470	Rework Hopper	
	14475	Auger	
	14 HVFS	HVFS	
DF-3	1000	Batching Station	86-A-117-S7
	1002	Blender 1	
	1004	Hammermill	
	1005	Blender 2	
	1008	ACM Mill	
	1012	Blender 3	
	1014	Hopper	
	1015	Blender 4	
	1021	Rotarty Sifter	
	1022	BDF	
	1023	Feeder Pan	
	1024	Granulation Pan	
	1025	Fluidized-Bed Dryer-Steam Heated	
	1026	Bucket Elevator	
	1027	Sweco Screen	
	1028	Recycle Hopper	
	1030	Finished Product Hopper	
	1031	Packing Area	
	1044	House Keeping Vacuum System	
	1046	Bulk Bag Unloader-1	
1047	Bulk Bag Unloader-2		
1048	Lump Breaker		
1061	Drum Dump Station		
1062	Kneader		
1063	Extruder		
1064	Air Mill		
DF#4	DF4 2268	Drum Weigh Station	87-A-110-S2
	DF4 2252	Drum Dumper	
	DF4 2201	Batching Station	
	DF4 2269	Feeder	
	DF4 2202	Batching Bucket Elevator	
	DF4 2270	Pneumatic Conveyance to Blender #1	
	DF4 2205	Blender #1	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	DF4 2207	Hammer Mill	
	DF4 2208	Blender #2	
	DF4 2210	Feeder	
	DF4 2275	Aero Mechanical Conveyor	
	DF4 2211	Air Mill	
	DF4 2271	Pneumatic Conveyance to Blender #3	
	DF4 2213	Blender 3	
	DF4 2217	Dryer Bucket Elevator	
	DF4 2222	Rotary Sifter	
	DF4 2272	Pneumatic Conveyance to Hopper	
	DF4 2224	BDF	
	DF4 2232	Surge Hopper	
	DF4 2227	Feeder	
	DF4 2229	Vibratory Fluid Bed Dryer	
	DF4 2231	Vibratory Fluid Bed Dryer	
	DF4 2234	Vibratory Screener	
	DF4 2235	Finish Product Hopper	
	DF4 2236	Packing Equipment	
	DF4 2240	Lump Buster	
	DF4 2241	Recycle Hopper	
	DF4 2242	Auger	
	DF4 2247	Flexomix	
	DF4 2249	Jet Mill	
	DF4 2248	Extruder	
	DF4 2251	Pan Granulator	
	DF4 2253	Bulk Bag Unloader	
	DF4 2254	Auger	
	DF4 2273	Pneumatic Conveyance to Conical Screw Mixer	
	DF4 2266	Conical Screw Mixer	
	DF4 2274	Collection Drum - Conical Screw Mixer	
DF4 22HVFS	Housekeeping Vacuum System		
DF#6	3000	Drum Weigh Station	94-A-486-S6
	3001	Batching Station	
	3002	Batching Auger	
	3004	Blender #1	
	3005	Bulk Bag Batching Hopper	
	3006	Hammer Mill	
	3007	Pneumatic Conveyance	
	3008	Blender #2	
	3009	Pneumatic Conveyance	
	3010	Mill Feed Auger	
	3013	Blender #3	
	3014	Blender #3 Auger	
	3015	Rotary Sifter	
	3016	Pneumatic Conveyance 3015 to 3055	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	3017	Pneumatic Conveyance BDF	
	3018	Air Mill	
	3019	Pneumatic Conveyance 3018 to 3013	
	3021	BDF	
	3040	BDF Hopper	
	3024	Kneader Feed Auger	
	3026	Kneader	
	3027	Extruder	
	3028	Dryer	
	3029	Vibratory Screener	
	3031	Packaging Equipment	
	3032	Bulk Packaging Equipment	
	3034	Bucket Elevator	
	3035	Finished Product Hopper	
	3050	Dryer Baghouse Auger	
	3051	Final Baghouse Auger	
	3052	Bag House Cross Auger #1	
	3053	Bag House Cross Auger #2	
	3054	Pneumatic Conveyance Nuisance BH to 3055	
	3055	Rework Hopper	
3056	Rework Drum		
	30HVFS	HVFS	
DF#7	3302	Drum Weigh Station	98-A-644-S6
	3354	Drum Dumper	
	3301	Batching Hopper	
	3352	Lump Breaker	
	3340	Pneumatic Conveyance	
	3304	Blender #1	
	3305	Hammer Mill	
	3306	Blender #2	
	3341	Mill Feed Auger	
	3308	Air Mill	
	3342	Pneumatic Conveyance	
	3310	Blender #3	
	3311	Rotary Sifter	
	3343	Pneumatic Conveyance	
	3312	BDF	
	3313	Kneader Hopper	
	3347	Kneader Feed Auger	
	3351	Liquid Batching Tank	
	3362	Liquid Loss on Weight Storage Tank	
	3353	Liquid Loss in Weight System	
3316	Kneader		
3317	Extruder		
3318	Dryer		
3319	Bucket Elevator		

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	3320	Vibratory Screener	
	3321	Packaging Hopper	
	3322	Bulk Packaging	
	3360	Packaging Hopper	
	3361	Packaging Equipment	
	3355	Packaging Drum Dump	
	3346	Pneumatic Conveyance	
	3348	Pneumatic Conveyance	
	3350	Recycle Hopper	
	3345	Recycle Hopper Auger	
	33 HVFS	HVFS	
	3363	Pluronic Slurry Tank	
DF#8	DF8 3440	Drum Weighing Station	99-A-409-S3
	DF8 3441	Drum Dumper	
	DF8 3401	Batching Station	
	DF8 3402	Bulk Bag Unloader	
	DF8 3405	Lump Breaker	
	DF8 3403	Blender #1	
	DF8 3406	Hammer Mill	
	DF8 3407	Blender #2 (EU DF8 3407)	
	DF8 3442	Pneumatic Conveyance to Blender #3/Cyclone Separator	
	DF8 3408	Feeder	
	DF8 3410	Air Mill	
	DF8 3409	ACM	
	DF8 3411	Blender #3	
	DF8 3414	Rotary Sifter	
	DF8 3417	Kneader Feeder	
	DF8 3418	Kneader	
	DF8 3419	Extruder	
	DF8 3420a	Long Cross Auger	
	DF8 3420b	Short Cross Auger	
	DF8 3420	Pan Granulator	
	DF8 3421	Vibratory Fluid Bed Dryer	
	DF8 3423	Bucket Elevator	
	DF8 3424	Rotary Screener	
	DF8 3425	Vibratory Screener	
	DF8 3426	Packing Equipment	
	DF8 3434	Aspirator Sifter	
	DF8 3443	Pneumatic Conveyance to Recycle Hopper	
	DF8 3435	Recycle Hopper	
	DF8 3436	Final Product Hopper	
	DF8 3437	BDF Hopper	
DF8 34HVFS	Housekeeping Vacuum System		
DF8 2422	Basket Granulator		

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
DF#9	4101	Bulk Bag Unloader #1	09-A-023-S4
	4102	Drum Dump	
	4140	Batching Station/ Dumping Hood	
	4103	Lump Breaker	
	4142	Pneumatic Conveyance	
	4104	Blender #1	
	4107	Feeder #1	
	4108	Hammer Mill	
	4109	Blender #2	
	4110	Feeder #2	
	4111	Air Mill	
	4143	Pneumatic Conveyance	
	4112	Blender #3	
	4115	Rotary Sifter	
	4144	Pneumatic Conveyance	
	4117	BDF	
	4118	Feeder #3	
	4119	Flexomix	
	4122	Kneader	
	4120	Basket Granulator	
	4123	Pan Granulator	
	4121	Twin Dome Extruder	
	4124	Vibratory Fluid Bed Dryer	
	4126	Bucket Elevator	
	4127	Vibratory Screener	
	4145	Reject Drum	
	4128	Rotary Screener/Separator	
	4141	Finished Product Hopper	
	4129	Packaging Area	
	4139	Recycle Hopper	
	41HVFS	HVFS	
	4150	Bulk Bag Unloader #2	
	4151	Bulk Bag Unloader #2 Auger	
4152	Bulk Bag Unloader #3		
4153	Bulk Bag Unloader #3 Auger		
4154	Bulk Bag Unloader Hopper		
4155	Bulk Bag Unloader Lump Breaker		
4156	Bulk Bag Unloader Pneumatic Conveyance		
4157	Pneumatic Conveyance		
DF11-EL	DF11-EL	DF #11 Equipment Leaks	14-A-556
HR	HR	Facility Hauls Roads	14-A-557
DF#2-EL	DF-2-EL	Equipment Leak for Water Dispersible Granulation Plant #2	16-A-301-S1
DF4-EL	DF-4-EL	Equipment Leak for Water Dispersible Granulation Plant #4	17-A-254

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
DF6-EL	DF-6-EL	Equipment Leak for Water Dispersible Granulation Plant #6	16-A-302-S1
DF7-EL	DF-7-EL	Equipment Leak for Water Dispersible Granulation Plant #7	16-A-303
DF8-EL	DF-8-EL	Equipment Leak for Water Dispersible Granulation Plant #8	17-A-255
DF9-EL	DF-9-EL	Equipment Leak for Water Dispersible Granulation Plant #9	17-A-248
EC12-BH1	EC1212-BBU71	EC 12 Tank 71 Bulk Bag Unloader	17-A-544
EC44	TK-4401	PVA Tank	12-A-495-S3
	TK-4401-BBS	PVA Tank – Solids Addition	
	TK-4402	Shar	
	TK-4402-BBS	Shar – Solids Addition	
	TK-4403	Oil Tank	
	TK-4404	Holding Tank	
	TK-4405	Check Tank	
	TK-4406	Feed/Pack Tank	
	EC44-Heater	Drum Heater	
	EC44-Screener	EC44-Screener	
	EC44-Box	Box Tank	
EC44 Packaging	Packaging		
EC44-EL	EC44-EL	Equipment Leaks for Building 44	17-A-210-S2
EL B42 & B46	EL B42 & B46	VOC Emissions from Equipment Leaks for buildings B42, B46, B48 Pump House, & Associated Outdoor Equipment	14-A-543-S3
EL B40 & B45	EL B40 & B45	VOC Emissions from Equipment Leaks for buildings B40, B45, B49 Pump House, & Associated Outdoor Equipment	14-A-536-S2
HR-B24	HR-B24	Bldg. 24 Haul Roads	19-A-064
HR-Area 46	HR-Area 46	Area 46 Haul Roads	14-A-537
HR-B21-25-26-27	HR-B21-25-26-27	Building 21, 25, 26, and 27 Haul Roads	18-A-362-S1
HR-B28-B31	HR-B28-B31	Building 28 and 31 Haul Roads	19-A-066
NF	TK-1401	Shar Tank	12-A-496-S3
	TK-1401-BBS	Shar Tank – solids addition	
	TK-1402	Aqueous Process Tank	
	TK-1402-BBS	Aqueous Process Tank – solids addition	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	TK-1403	Holding Tank	
	TK-1404	Raw Materials Storage Tank	
	TK-1405	Check Tank	
	TK-1406	Pack Tank	
	TK-1407	Raw Materials Storage Tank	
	TK-1408	Kelzan Shar Tank	
	TK-1408-BBS	Kelzan Shar Tank – solids addition	
	NFMill	NF Mill	
	NFBE	North Flow Bucket Elevator	
	NF-Box	Box Tank	
	NF-Pack	Packaging Reservoir	
	NF-Screener	NF-Screener	
	NF-Packaging	Packaging	
NF-EL	NF-EL	Equipment Leaks for North Flowable Liquid Plant	17-A-249
SD1	SD1-a	Natural Gas Heater	13-A-314-S2
	SD1-b	Bag Dump Station/Loss in Weight Feeder	
	SD1-c	Direct Fired Spray Dryer	
	SD1-e	Screener	
	SD1-f	Super Sack Bag Filler	
	SD1-g	Loading Off-Spec Drum	
SF-BH1	SF-BBU-93	South Flowable Batching Station	17-A-103
SF-BH2	SF-BBU-127	South Flowable Batching Station	17-A-104
SF-EL	SF-EL	Equipment Leaks for the SF Processing Lines	17-A-209
SF-Vent1	SF-TK88	SF Tank 88	17-A-105
	SF-TK89	SF Tank 89	
	SF-TK90	SF Tank 90	
	SF-TK91	SF Tank 91 PK4	
	SF-TK92	SF Tank 92 GR1	
	SF-TK93	SF Tank 93 GR1	
	SF-TK127	SF Tank 127	
	SF-TK128	SF Tank 128	
TEST	DC 3251	Drum Weigh Station	95-A-400-S5
	DC 3237	Drum Dumper	
	DC 3201	Batching Station	
	DC 3252	Pneumatic Conveyance to Blender #1	
	DC 3204	Blender #1	
	DC 3205	Hammer Mill	
	DC 3206	Blender #2	
	DC 3207	Feeder	
	DC 3208	Air Mill	
	DC 3253	Pneumatic Conveyance to Blender #3	
DC 3210	Blender #3		

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	DC 3211	Rotary Sifter	
	DC 3254	Pneumatic Conveyance to BDF	
	DC 3213	BDF	
	DC 3214	Volumetric Feeder	
	DC 3215	Pan Granulator	
	DC 3256	Flexomix	
	DC 3217	Extruder	
	DC 3255	Vibratory Fluid Bed Dryer	
	DC 3219	Bucket Elevator	
	DC 3220	Vibratory Screener	
	DC 3232	ACM Mill	
	DC 3234	Packaging Area	
	DC 3236	Feeder	
	DC 3247	Basket Granulator	
	DC 3248	Packaging Hopper	
DC 32HVFC	Housekeeping Vacuum System		
TEST-EL	TEST-EL	Formulation Test Plant Equipment Leaks	17-A-256
TK 1000	TK-993	Building 42 Storage Tanks	14-A-529-S4
	TK-994	Building 42 Storage Tanks	
	TK-995	Building 42 Storage Tanks	
	TK-996	Building 42 Storage Tanks	
	TK-997	Building 42 Storage Tanks	
	TK-998	Building 42 Storage Tanks	
	TK-999	Building 42 Storage Tanks	
	TK-1000	Building 42 Storage Tanks	
	TK-1005	Building 42 Storage Tanks	
	TK-1006	Building 42 Storage Tanks	
	TK-1007	Building 42 Storage Tanks	
	TK-1008	Building 42 Storage Tanks	
	TK-1009	Building 42 Storage Tanks	
	TK-1010	Building 42 Storage Tanks	
	TK-1011	Building 42 Storage Tanks	
TK-1012	Building 42 Storage Tanks		
TK-1017	Building 42 Storage Tanks		
TK-1018	Building 42 Storage Tanks		
TK-1001	TK-1001	Building 42 Storage Tanks	19-A-320-S1
TK-1002	TK-1002	Building 42 Storage Tanks	19-A-321-S1
TK-1003	TK-1003	Building 42 Storage Tanks	19-A-322-S1
TK-1004	TK-1004	Building 42 Storage Tanks	19-A-323-S1
TK-1013	TK-1013	Building 42 Storage Tanks	19-A-324-S1
TK-1014	TK-1014	Building 42 Storage Tanks	19-A-325-S1
TK-1015	TK-1015	Building 42 Storage Tanks	19-A-326-S1
TK-1016	TK-1016	Building 42 Storage Tanks	19-A-327-S1
TK-1019	TK-1019	Building 42 Storage Tanks	19-A-328-S1
TK-1020	TK-1020	Building 42 Storage Tanks	19-A-329-S1

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
TK-1021	TK-1021	Building 42 Storage Tanks	19-A-330-S1
TK-1022	TK-1022	Building 42 Storage Tanks	19-A-331-S1
TK-1023	TK-1023	Building 42 Storage Tanks	19-A-332-S1
TK-1024	TK-1024	Building 42 Storage Tanks	19-A-333-S1
B-35	B35-3500	B35 Container Unloading	20-A-373
B-35	B35-3510	B35 Packaging Hopper	
B-35	B35-3520	B35 Packaging Equipment	
B38WW	WWTP-DS1	Wastewater Treatment Floc Bag Dump Station 1	19-A-354
	WWTP-DS2	Wastewater Treatment Floc Bag Dump Station 2	
	WWTP-TK905	Wastewater Treatment Tank 905	
	WWTP-FT1	Wastewater Treatment Floc Tank 1	
	WWTP-FT2	Wastewater Treatment Floc Tank 2	
	WWTP-TK902	Wastewater Treatment Tank 902	
	WWTP-TK903	Wastewater Treatment Tank 903	
	WWTP-TK904	Wastewater Treatment Tank 904	
Spray Booth	Spray Booth	Paint Spray Booth	19-A-094
Boil 1	Boil 1	Boiler 1	N/A
Boil 2	Boil 2	Boiler 2	N/A
Boil 3	Boil 3	Boiler 3	N/A
Boil 4	Boil 4	Boiler 4	N/A
Boil 5	Boil 5	Boiler 5	N/A
Boil 6	Boil 6	Boiler 6	N/A
Boil 7	Boil 7	Boiler 7	N/A
Boil 8	Boil 8	Boiler 8	N/A
Boil 9	Boil 9	Boiler 9	N/A
Boil 10	Boil 10	Boiler 10	N/A
Boil 11	Boil 11	Boiler 11	N/A
Boil 12	Boil 12	Boiler 12	N/A
Boil 13	Boil 13	Boiler 13	N/A
Boil 14	Boil 14	Boiler 14	N/A
Boil 15	Boil 15	Boiler 15	N/A
Boil 16	Boil 16	Boiler 16	N/A
AA	AA	Anhydrous Ammonia Storage	N/A
GEN 1	GEN 1	115 HP Emergency Generator	N/A
GEN 2	GEN 2	82 HP Emergency Generator	N/A
DIESEL	DIESEL	Diesel Tank	N/A
T-CLEAN	T-CLEAN	Tanker Cleaning	N/A

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
DF8 Furnace	Natural gas furnace for dryer
DF9 Furnace	Natural gas furnace for dryer
DF10 Furnace	Natural gas furnace for dryer
DF11 Furnace	Natural gas furnace for dryer
DF-10 RTO	Natural gas fired control device
DF-9 RTO	Natural gas fired control device
Portable Air Compressor	Diesel powered portable air compressor
COMP3	Diesel powered portable air compressor
B8 OH Heater	.0025MMBtu/hr OH heater
B34 OH Heater	.1 MMBtu/hr OH Heaters
B38 OH Heater	.1 MMBtu/hr OH Heaters
B44 OH Heater	.1 MMBtu/hr OH Heaters
B41 OH Heater	.115MMBtu/hr OH Heater
B5 OH Heater	.125 MMBtu/Hr OH Heater
B44 OH Heater	.14375 MMBtu/hr OH heaters
B42 OH Heater	.145 MMBtu/hr OH heater
B38 OH Heater	.15 MMBtu/hr OH heater
B34 OH Heater	.165 MMBtu/hr OH heaters
B35 OH Heater	.165 MMBtu/hr OH heaters
B43 OH Heater	.165 MMBtu/hr OH heaters
B40 OH Heater	.193MMBtu/hr OH heaters
B42 OH Heater	.193MMBtu/hr OH heaters
B8 OH Heater	.2 MMBtu/hr OH heater
B5 OH Heater	.2075 MMBtu/hr OH heater
B5 OH Heater	.24 MMBtu/hr OH heater
B8 OH Heater	.24 MMBtu/hr OH heater
B2 OH heater	.25 MMBtu/hr OH heater
B5 OH Heater	.25 MMBtu/hr OH heater
B9 OH Heater	.25 MMBtu/hr OH heater
B42 OH Heater	.25 MMBtu/hr OH heater
B8 OH Heater	.3 MMbtu/hr OH heater

II. Plant-Wide Conditions

Facility Name: Van Diest Supply Company

Permit Number: 21-TV-006

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: 5 years

Commencing on: 11/23/21

Ending on: 11/22/2026

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Emission Limits

Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity

Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO₂): 500 parts per million by volume

Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed on or after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored on a building, its appurtenances or a construction haul road to be

used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.
4. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

Authority for Requirement: 567 IAC 23.3(2)"c"

III. Emission Point-Specific Conditions

Facility Name: Van Diest Supply Company
 Permit Number: 21-TV-006

Emission Point ID Number: EC17-1

Associated Equipment

Emission Unit Description (EU ID)	Control Equipment (CE ID)	Maximum Rated Capacity	Raw Material
Bulk Bag Unloader (EC17-1000)	<i>Baghouse and HEPA Filter (CE EC17-1000)</i>	5,000 lb/hr	Herbicide
Batch Tank (TK-695)	None	6,900 gallons 200 gallons/minute	
Premix Tank (TK-696)	None	6,900 gallons 200 gallons/minute	

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
 DNR Construction Permit 02-A-235-S1

- ⁽¹⁾ An exceedance of the indicator opacity of "no visible emission (No VE)" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.17 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
 DNR Construction Permit 02-A-235-S1

Pollutant: Volatile Organic Compounds

Emission Limit(s): 22 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-235-S1

Operational Requirements and Associated Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials used in EC17 Processing Plant, the owner or operator shall record and document the materials used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, in the EC17 Processing Plant.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The permittee shall produce a maximum of 7.0 million gallons of product in the EC17 Processing Plant per rolling 12-month period.
 - (1) The owner or operator shall record on a monthly basis the amount of product produced in the EC17 Processing Plant, in gallons, and calculate and record rolling 12-month totals.

Control Equipment Requirements

- E. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- F. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- G. The differential pressure drop across the Baghouse and HEPA Filter (CE EC17-1000) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across Baghouse and HEPA Filter (CE EC17-1000), in inches of water, on a daily basis. If the pressure drop across the Baghouse and HEPA Filter (CE EC17-1000) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

Recordkeeping for the EC17 Processing Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the EC17 Processing Line. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EC17-1 and EC17-2 and the EC17 Packaging Line as well as those from miscellaneous sources related to EC17 Processing Line production, including emissions from drum heating, ancillary packaging emissions, laboratory activity, and tank and floor cleaning. The limit also covers emissions from the B12 Packaging Line and Tank TK-22 in building B13 when processing materials from the EC17 Processing Line. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the EC17 Processing Line:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- H. For each product produced in the EC17 Processing Line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition H. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct

emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or more recent) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG).
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- I. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition H above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- J. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard and nonstandard batches completed for each product produced.
- K. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- L. If the 12-month rolling total of the VOC emissions exceeds 18.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- M. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- N. All batch process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the

- miscellaneous organic chemical process unit for the EC17 Processing Line and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the EC17 Processing Line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - A record of whether each batch operated was considered a standard batch.
 - The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- O. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- P. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- Q. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- R. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the EC17 Processing Line.

- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 02-A-235-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 02-A-235-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 35

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 1,200

Exhaust Temperature (°F): 74

Discharge Style: Vertical unobstructed

Authority for Requirement: DNR Construction Permit 02-A-235-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EC17-2

Associated Equipment

Emission Unit Description (EU ID)	Control Equipment	Maximum Rated Capacity	Raw Material
EC17 Storage Tanks (T686 – T693)	None	6,900 gallons	Herbicide
Pack Tank (TK-694)	None	6,900 gallons 200 gallons/minute	

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 22 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-236-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (2) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only store materials for the EC17 Processing Line in the EC17 Storage Tanks.
 - (1) For all materials stored in the tanks in the EC17 Tank Farm, the owner or operator shall record and document the tank used and the material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the storage tanks.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The permittee shall produce a maximum of 7.0 million gallons of product in the EC17 Processing Plant per rolling 12-month period.
 - (2) The owner or operator shall record on a monthly basis the amount of product produced in the EC17 Processing Plant, in gallons, and calculate and record rolling 12-month totals.

Recordkeeping for the EC17 Processing Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the EC17 Processing Line. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EC17-1 and EC17-2 and the EC17 Packaging Line as well as those from miscellaneous sources related to EC17 Processing Line production, including emissions from drum heating, ancillary packaging emissions, laboratory activity, and tank and floor cleaning. The limit also covers emissions from the B12 Packaging Line and Tank TK-22 in building B13 when processing materials from the EC17 Processing Line. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the EC17 Processing Line:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- E. For each product produced in the EC17 Processing Line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (8) The permittee shall identify and document each product produced.
 - (9) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (10) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition E. The facility shall document and provide a justification for the value for each input used.
 - (11) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (12) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The

permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- h. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
- i. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or more recent) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- j. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG).
- k. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- l. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- m. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- n. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

(13) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

(14) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.

(2) The permittee shall use the operating scenarios required in Condition E above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (3) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (4) The daily number of standard and nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (5) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (6) The total amount of VOC emissions for each product produced, in tons.
 - (7) The total amount of VOC emissions for all products produced, in tons.
 - (8) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 18.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (5) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (6) The total amount of VOC emissions for each product produced, in tons.
 - (7) The total amount of VOC emissions for all products produced, in tons.
 - (8) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (2) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- K. All batch process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (4) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (5) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the EC17 Processing Line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (6) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - e. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - f. A record of whether each batch operated was considered a standard batch.
 - g. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - h. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- L. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (2) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- N. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

O. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the EC17 Processing Line.

(2) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 02-A-236-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 02-A-236-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 21

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 74

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 02-A-236-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EC17 Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-EC17 - PR1	EU-EC17- PR1	B17 Packing Reservoir	34 gallons	None	19-A-092
EP- EC17 -PL1	EU- EC17 -PL1	B17 Packaging Line	12,000 gallons/hr	None	19-A-093

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 22 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- (1) Emission limits apply to EC17 Processing Line. This limit applies to all of the emission units and emission episodes listed in operational limit section of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.

- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

B. For all VOC containing materials used in EC17 Processing Line, the owner or operator shall record and document the materials used.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The permittee shall produce a maximum of 7.0 million gallons of product in the EC17 Processing Plant per rolling 12-month period.
 - (1) The owner or operator shall record on a monthly basis the amount of product produced in the EC17 Processing Plant, in gallons, and calculate and record rolling 12-month totals.

Recordkeeping for the EC17 Processing Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the EC17 Processing Line. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EC17-1 and EC17-2 and the EC17 Packaging Line as well as those from miscellaneous sources related to EC17 Processing Line production, including emissions from drum heating, ancillary packaging emissions, laboratory activity, and tank and floor cleaning. The limit also covers emissions from the B12 Packaging Line and Tank TK-22 in building B13 when processing materials from the EC17 Processing Line. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the EC17 Processing Line:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Storage Tanks
- Gas Sweep
- Solids Handling
- Evaporation
- Heating
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- E. For each product produced in the EC17 Processing Line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the

equations listed below in Condition 5.E. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or more recent) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG).
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition 5.E above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard and nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 18.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of

VOC emissions will cease per this section of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- K. All batch process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the EC17 Processing Line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- L. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.

- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- N. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- O. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the EC17 Processing Line.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EC17-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): EC17-EL

Emission Unit vented through this Emission Point: EC17-EL

Emission Unit Description: EC17 Equipment Leaks

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (3) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials used in EC17 Processing Line, the owner or operator shall record and document the materials used.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, in the EC17 Processing Line.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The equipment used in the EC17 Processing Line shall have a maximum of 84 liquid valves, 14 liquid pumps, 741 connectors, 24 open-ended lines, and 14 liquid sample connections. The process shall not use any gas valves, compressors, agitators, or pressure relief valves. This shall include all of the equipment used in the EC17 Processing Line to

handle any VOC-containing material.

- (1) The owner or operator shall count and document the number and types of components used in EC17 Processing Line. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall update the component count whenever the number of components change.

NSPS and NESHAP Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in ECW processing line.
 - (3) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 19-A-091

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 19-A-091
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 14-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B14-EL

Emission Unit vented through this Emission Point: B14-EL

Emission Unit Description: Equipment Leaks from Building 14 (B14) for the Building 37 (B37) Processing Line
Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment in B14 for the B37 processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials handled in B14 for the B37 processing line, the owner or operator shall record and document the material handled and the origins of the material (i.e. B37 processing lines).
 - (3) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B14 equipment for the B37 processing line.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The equipment used in B14 for the B37 processing lines shall have a maximum of 30

heavy liquid valves, 3 heavy liquid pumps, 108 heavy liquid connectors and 4 heavy liquid sample connections. The process shall not use any light liquid components, or any gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in B14 for the B37 processing lines.

- (1) The owner or operator shall count and document the number and types of components used in B14 for the Building 37 (B37) processing lines. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall update the component count whenever the number of components change.

NSPS and NESHAP Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (2) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - (2) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 14 for the B37 processing line.
 - (4) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-004

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-004
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 4L-BH1

Associated Equipment

Emission Unit	Maximum Rated Capacity	Control Equipment	Raw Material
4L Tank 79 Batching Station (EU4L- BBU79)	8,000 lbs/hr	Baghouse (CE4L-BH1)	Herbicide
4L Tank 79 (EU4L- TK79)	2,000 gallons		
4L Tank 80 Batching Station (EU4L- BBU80)	8,000 lbs/hr		
4L Tank 80 (EU4L- TK80)	2,000 gallons		

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permit 17-A-080

- ⁽¹⁾ An exceedance of the indicator opacity of "no visible emission (No VE)" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-080

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-080

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.08 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permit 17-A-080

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-080

- ⁽²⁾ Emission limits apply to 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1(i), EPSF –BH1(i), EPSF –BH2(i), EPSF –Vent1(i), EP-B17TF-East(i) (ii), EP-B17TF-West(i) (ii), EPB17-LO(i) (ii), EPB11-LO(i) (ii), EP-B13TF-1(i) (ii), EPB13-LO(i) (ii), and those covered under the 4L Process Line CAP permit(i) and the Building 11 Storage Tanks CAP permit(i) (ii). The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.

- i) The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
- ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽³⁾

Authority for Requirement: DNR Construction Permit 17-A-080

- (3) Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱⁱ⁾, EP4L-BH1, EPSF –BH1, EPSF –BH2, EPSF –Vent1, EP-B17TF-East⁽ⁱⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱⁱ⁾, EPB17-LO⁽ⁱⁱⁱ⁾, EPB11-LO⁽ⁱⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱⁱ⁾, EPB13-LO⁽ⁱⁱⁱ⁾, and those covered under the 4L Process Line CAP permit and the Building 11 Storage Tanks CAP permit⁽ⁱⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
 - i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
 - ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operational Requirements and Associated Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment for the 4L processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The differential pressure drop across the baghouse (CE4L-BH1) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across the baghouse (CE4L-BH1), in inches of water, on a daily basis. If the pressure drop across the

baghouse (CE4L-BH1) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

- D. The permittee shall employ good housekeeping practices for the 4L processing line. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- E. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- F. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition G.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.

- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- G. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
 - (3) The permittee shall use the operating scenarios required in Condition G.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- H. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (5) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (6) The daily number of standard or nonstandard batches completed for each product produced.
- I. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (9) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (10) The total amount of VOC emissions for each product produced, in tons.
 - (11) The total amount of VOC emissions for all products produced, in tons.
 - (12) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- J. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (9) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (10) The total amount of VOC emissions for each product produced, in tons.
 - (11) The total amount of VOC emissions for all products produced, in tons.
 - (12) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- K. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- L. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition M.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.

For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- M. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition M.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- N. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- O. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit sectionthe emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- P. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit sectionthe emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- Q. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (3) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- R. Upon and after the compliance date for 40 CFR Part 63 Subpart FFFF, all batch process vents that are part of the miscellaneous organic chemical process unit for the 4L processing line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (7) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the 4L processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (8) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (4L processing line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (9) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - j. A record of whether each batch operated was considered a standard batch.
 - k. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - l. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- S. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any continuous process vents that are part of the miscellaneous organic chemical process unit for the 4L processing line shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the 4L processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2455 (b), for each continuous process vent in the 4L processing

line, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).

- T. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any wastewater streams that are part of the miscellaneous organic chemical process unit for the 4L processing line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (3) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- U. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- V. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the 4L processing line.
- (5) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-080

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-080
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 38

Stack Opening, (inches, dia.): 16

Exhaust Flow Rate (scfm): 1,750

Exhaust Temperature (°F): 120

Discharge Style: Vertical unobstructed

Authority for Requirement: DNR Construction Permit 17-A-080

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 4L Process - Interior

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP4L-TK75	EU4L- TK75	4L Tank 75 PK1	6,000 gallons	None	17-A-081
EP4L -TK76	EU4L- TK76	4L Tank 76 PK2	6,000 gallons	None	17-A-082
EP4L -TK77	EU4L- TK77	4L Tank 77 PK3	6,000 gallons	None	17-A-083
EP4L -TK78	EU4L- TK78	4L Tank 78 PK4	1,200 gallons	None	17-A-084
EP4L -TK81	EU4L- TK81	4L Tank 81 GR1	5,200 gallons	None	17-A-085
EP4L -TK82	EU4L- TK82	4L Tank 82 GR2	5,200 gallons	None	17-A-086
EP4L -TK83	EU4L- TK83	4L Tank 83	12,000 gallons	None	17-A-087
EP4L -TK85	EU4L- TK85	4L Tank 85	12,000 gallons	None	17-A-088
EP4L -TK86	EU4L- TK86	4L Tank 85	12,000 gallons	None	17-A-089
EP4L -TK129	EU4L- TK129	4L Tank 129	12,000 gallons	None	17-A-090
EP4L -TK130	EU4L- TK130	4L Tank 130	12,000 gallons	None	17-A-091
EP4L -TK131A	EU4L- TK131A	4L Tank 131A	12,000 gallons	None	17-A-092
EP4L -TK131B	EU4L- TK131B	4L Tank 131B	12,000 gallons	None	17-A-093
EP4L-Screener1	EU4L-Screener1	4L Vibratory Screener 1	730 gallons/hr	None	17-A-094
EP4L-Screener2	EU4L-Screener2	4L Vibratory Screener 2	730 gallons/hr	None	17-A-095
EP4L - OS1	EU4L- OS1	4L Oversize Tank 1 for Vibratory Screener	40 gallons	None	17-A-096
EP4L - OS2	EU4L- OS2	4L Oversize Tank 2 for Vibratory Screener	40 gallons	None	17-A-097
EP4L - BT1	EU4L- BT1	4L Box Tank 1 for Vibratory Screener	72 gallons	None	17-A-098
EP4L - BT2	EU4L- BT2	4L Box Tank 2 for Vibratory Screener	34 gallons	None	17-A-099
EP4L - PR1	EU4L- PR1	4L Packing Reservoir	34 gallons	None	17-A-100-S1

EP-4LSF-P1	EU-4LSF-P1	4L and South Flowable (SF) Packaging Line	1,000 gallons/hr	None	17-A-101-S1
EP-B14-LO1	B14-LO1	4L and South Flowable (SF) Product Loadout	2,500 gallons/hr	None	17-A-102

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds

Emission Limit(s): 25.0 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽¹⁾ Emission limits apply to 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1(i), EPSF –BH1(i), EPSF –BH2(i), EPSF –Vent1(i), EP-B17TF-East(ii), EP-B17TF-West(ii), EPB17-LO(ii), EPB11-LO(ii), EP-B13TF-1(ii), EPB13-LO(ii), and those covered under the 4L Process Line CAP permit(i) and the Building 11 Storage Tanks CAP permit(ii). The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.

- i. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
- ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds

Emission Limit(s): 21.0 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44(i), EP4L-BH1(i), EPSF –BH1(i), EPSF –BH2(i), EPSF –Vent1(i), EP-B17TF-East(ii), EP-B17TF-West(ii), EPB17-LO(ii), EPB11-LO(ii), EP-B13TF-1(ii), EPB13-LO(ii), and those covered under the 4L Process Line CAP permit(i) and the Building 11 Storage Tanks CAP permit(ii). The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.

- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds

Emission Limit(s): 17.0 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽³⁾ Emission limits apply to B37 Processing Plant. This limit applies to all of the emission episodes listed in operational requirements section below.

Operational Requirements & Associated Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
 - A. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - B. The owner or operator shall only use the packaging equipment (EU4L- PR1 and EU-4LSF-P1) for the materials used in the processing lines for building 37 (B37).

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Gas Sweep
- Solids Handling
- Evaporation from Screens and Tank Evaporation
- Heating
- Bulk Storage Tank Emissions
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- B. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- C. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- h. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- i. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate

equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).

- j. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- k. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- l. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- m. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- n. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- D. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- E. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- F. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- G. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- H. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- I. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition J.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- J. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition J.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- K. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.
- L. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- M. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission

limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- N. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition O.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.

- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (6) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- O. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition O.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- P. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- Q. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- R. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit

section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- S. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- T. Upon and after the compliance date for 40 CFR Part 63 Subpart FFFF, all batch process vents that are part of the miscellaneous organic chemical process unit for the 4L processing line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the 4L processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the 4L processing line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

- d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- U. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any continuous process vents that are part of the miscellaneous organic chemical process unit for the 4L processing line shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the 4L processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the 4L processing line, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- V. After the compliance date for 40 CFR Part 63 Subpart FFFF, the material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the 4L processing lines with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) After the compliance date for 40 CFR Part 63 Subpart FFFF, the owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the 4L processing line, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- W. After the compliance date for 40 CFR Part 63 Subpart FFFF, the facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the 4L processing line, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) Upon the compliance date for 40 CFR Part 63 Subpart FFFF, the owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the 4L processing line, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- X. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any wastewater streams that are part of the miscellaneous organic chemical process unit for the 4L processing line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

- Y. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- Z. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the 4L processing line.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 4L-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 4L-EL

Emission Unit vented through this Emission Point: 4L-EL

Emission Unit Description: Equipment Leaks for the 4L Processing Line

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Operational Requirements & Associated Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for the 4L processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For each product produced in the 4L processing line, the owner or operator shall identify and document each VOC-containing material used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the 4L processing line.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment used in the 4L processing line shall have a maximum of 207 heavy liquid valves, 22 heavy liquid pumps, 1196 connectors, 10 open-ended lines, and 14 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, or pressure relief valves. This shall include all of the equipment used in the 4L processing line.

- (1) The owner or operator shall count and document the number and types of components used in the 4L processing line. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

NESHAP Subpart FFFF Requirements

- E. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the 4L processing line.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permit 17-A-208

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-208
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Area46-HR

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): Area46-HR

Emission Unit vented through this Emission Point: Area46-HR

Emission Unit Description: Area 46 Haul Roads

Raw Material/Fuel: Fugitive Dust

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 14-A-537
567 IAC 23.3(2)"c"

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit(s): 7.0 ton/yr

Authority for Requirement: DNR Construction Permit 14-A-537

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 12.0 ton/yr

Authority for Requirement: DNR Construction Permit 14-A-537

Pollutant: Particulate Matter (PM)

Emission Limit(s): 22.0 ton/yr

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 14-A-537

Authority for Requirement: DNR Construction Permit 14-A-537

Operational Requirements & Associated Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Operating limits for this emission unit shall be:

- A. All haul road(s) at the facility shall be paved.
- B. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- Limiting truck speed on facility property
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall determine the silt loading of the paved haul roads for Area 46 monthly with the initial testing being performed within 90 days of the permit issuance date. For each performance test, silt loading sampling shall be done for at least 3 different locations. The three sampled locations shall then be averaged to determine the silt loading average results. The testing shall be completed prior to any cleaning routine done for the paved roads. Silt load testing shall be conducted according to the procedures outlined in AP-42, Appendix C.1 Procedures for Sampling Surface/Bulk Dust Loading and C.2 Procedures for Laboratory Analysis of Surface/Bulk Dust Loading Samples. After two years of silt load testing, the facility may request the Department to reevaluate the silt load sampling frequency requirements.
- B. If silt load testing cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35° F (1.7° C) or because a representative sample cannot be otherwise obtained, then the testing shall be postponed and accomplished as soon reasonably possible after the scheduled date as the conditions preventing the testing have abated. The facility shall document the justification used for any postponed tests.
- C. The owner or operator shall maintain a log for each silt load sampling event that contains, at a minimum, the following:
 - a. The date of silt load sampling event;
 - b. the location of the sample;
 - c. the measured silt content in grams;

- d. sample area used for silt load sampling in meters;
 - e. the silt loading in g/m²
 - f. the operator's initials.
- D. The owner or operator shall document the distance of each haul road route used for Area 46.
- E. The owner or operator shall record each time a truck uses a route for Area 46.
- F. The owner or operator shall record on a monthly basis:
- a. The average silt load testing result obtained per 15.A. If silt load testing is not required due to 15.B for any month, the facility may use previous month's test data for calculating emissions.
 - b. The number of trips taken on each haul road route.
 - c. The total vehicle miles (VMT) travelled for all trucks used for the Area 46 processes. This shall be accomplished by multiplying the number of trips taken on each haul road route by the distance of the corresponding route and summing the results.
 - d. The maximum average truck weight of vehicles used for Area 46 processes (the maximum average truck weight is the average of a full and empty truck for the heaviest truck used for the Area 46 processes).
- G. The owner/operator shall calculate and record the monthly PM, PM-10, and PM-2.5 emissions for Area 46 truck traffic according to the formulas and procedures from AP-42 Section 13.2.1 using the data documented in 15.E. The owner or operator shall update monthly the twelve-month rolling total of PM, PM-10, and PM-2.5 emissions by adding up the calculated monthly emissions for the previous twelve months.
- H. The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.

Authority for Requirement: DNR Construction Permit 14-A-537

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B11-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B11-EL

Emission Unit vented through this Emission Point: B11-EL

Emission Unit Description: Building 11 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-200-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 11 (B11) equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. 4L and SF processing lines, Building 37, bulk terminal materials).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B11 equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment used in the B11 tank farm and the associated loadouts shall have a maximum of 135 heavy liquid valves, 22 heavy liquid pumps, 977 heavy liquid connectors, and 17 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in the B11 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall count and document the number and types of components used in B11. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- E. The equipment used in B11 for the 4L and SF processing lines shall have a maximum of 56 heavy liquid valves, 4 heavy liquid pumps, and 210 connectors. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, liquid sample connections, or pressure relief valves. This shall include all of the equipment used in building B11 for the 4L and SF processing lines.
- (1) The owner or operator shall count and document the number and types of components used in B11 for the 4L and SF processing lines. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.
- F. The equipment used in B11 for the Building 37 (B37) processing lines shall have a maximum of 2 heavy liquid valves, 2 heavy liquid pumps, 40 heavy liquid connectors, and 2 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in building B11 for the B37 processing lines.
- (1) The owner or operator shall count and document the number and types of components used in B11 for the B37 processing line. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference

text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.

- (2) The company shall modify the component count whenever the number of components change.

NSPS and NESHAP Requirements

- G. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (3) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- H. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in the referenced subparts F, H, or UU.
 - (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- I. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building B11.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-200-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-200-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 11 Loadout and Packaging

Associated Equipment

Emission Unit Description, EU ID	Control Equipment	Maximum Rated Capacity	Raw Material
Building 11 (B11) Product Tanker Loadout, EU-B11-LO	None	2,500 gallons/hr	Herbicide
Building 11 (B11) Product Packaging and Mini-bulk Loadout, EU-B11- Packaging	None	2,500 gallons/hr	Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permit 17-A-178-S2

- ⁽¹⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- i. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
 - ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-178-S2

- ⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
 - ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44

processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr ⁽³⁾

Authority for Requirement: DNR Construction Permit 17-A-178-S2

⁽³⁾ Emission limits apply to B37 Processing Plant. This limit applies to all of the emission episodes listed in the operating requirements section of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only loadout materials for the EC12, Building 37 (B37), 4L, and SF processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for packaging and bulk terminal operations in the Building 11 (B11) Product Tanker Loadout (EU-B11- LO) and Product Packaging and Mini-bulk Loadout (EU-B11-Packaging).
 - (1) For all materials transferred in emission units EU-B11- LO and EU-B11-Packaging, the owner or operator shall record and document the loadout used, the VOC-containing material transferred, the origins of the VOC-containing material (i.e. EC12, B37, 4L, SF , or 4L/SF/EC44 processing lines; or packaging and bulk terminal operations), and amount of VOC-containing material transferred.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in emission units EU-B11- LO and EU-B11-Packaging.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this

permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition E.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition E.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition K.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.

- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition K.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)

Storage Tanks

Gas Sweep

Solids Handling

Evaporation from Screens and Open Tanks

Heating

Ancillary Packaging Emissions - Ink Jet & Stenciling

Laboratory Emissions

Tank Cleaning Emissions

Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- P. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition P.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - h. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - i. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - j. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - k. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - l. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - m. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.

- n. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

Q. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition P.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

R. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.

S. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

T. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

Conditions for product loadout for the packaging and bulk terminal operations

- U. Packaging and bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. 4L, South Flowable, EC12, B37, etc.). These materials are brought to the facility, stored, processed, and then packaged in containers or drums or loaded into tankers or railcars and transferred off site.
- V. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.F) in emission points EP-B15-LO-1, EP-B15-LO-2, and EP-B15-Hose.
- (1) For all materials transferred in the Building 15 Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the amount of VOC-containing material transferred;
 - c) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - d) if the material is an organic liquid, as defined in §63.2406
- W. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B11 Product Tanker Loadout (EU-B11-LO) and the Product Packaging and Mini-bulk Loadout (EU-B11-Packaging) and Building 15 (B15) shall be less than 10.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in emission units EU-B11- LO and EU-B11-Packaging and Building 15 (B15).

Conditions for product loadout for the EC12 processing line

- X. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B11 Product Tanker Loadout (EU-B11-LO) and the Product Packaging and Mini-bulk Loadout (EU-B11-Packaging) shall be less than 10.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in emission units EU-B11- LO and EU-B11-Packaging.

NSPS or NESHAP Requirements

- Y. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- Z. The owner or operator shall determine and document which transfer racks covered under this permit are subject to 40 CFR Part 63 Subpart FFFF, and, if subject, which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in §63.2435 (d), if applicable.
- AA. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a miscellaneous organic chemical process unit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- BB. For each loadout covered under this permit, the owner or operator shall determine and document if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- CC. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B15.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

DD. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

EE. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B11.

(2) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-178-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-178-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 11 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B11TF-1	TK1	Building 11 Storage Tank 1	37,500 gallons	None	17-A-179-S1
EP-B11TF-2	TK2	Building 11 Storage Tank 2	37,500 gallons	None	17-A-180-S1
EP- B11TF-3	TK3	Building 11 Storage Tank 3	37,500 gallons	None	17-A-181-S1
EP- B11TF-4	TK4	Building 11 Storage Tank 4	37,500 gallons	None	17-A-182-S1
EP- B11TF-5	TK5	Building 11 Storage Tank 5	37,500 gallons	None	17-A-183-S1
EP- B11TF-6	TK6	Building 11 Storage Tank 6	37,500 gallons	None	17-A-184-S1
EP- B11TF-7	TK7	Building 11 Storage Tank 7	37,500 gallons	None	17-A-185-S1
EP- B11TF-8	TK8	Building 11 Storage Tank 8	17,500 gallons	None	17-A-186-S1
EP- B11TF-9	TK9	Building 11 Storage Tank 9	17,500 gallons	None	17-A-187-S1
EP- B11TF-10	TK10	Building 11 Storage Tank 10	4,000 gallons	None	17-A-188-S1
EP- B11TF-11	TK11	Building 11 Storage Tank 11	4,000 gallons	None	17-A-189-S1
EP- B11TF-12	TK12	Building 11 Storage Tank 12	4,000 gallons	None	17-A-190-S1
EP- B11TF-13	TK13	Building 11 Storage Tank 13	4,000 gallons	None	17-A-191-S1
EP- B11TF-14	TK14	Building 11 Storage Tank 14	4,000 gallons	None	17-A-192-S1
EP- B11TF-15	TK15	Building 11 Storage Tank 15	4,000 gallons	None	17-A-193-S1

EP- B11TF-16	TK16	Building 11 Storage Tank 16	4,000 gallons	None	17-A-194-S1
EP- B11TF-17	TK17	Building 11 Storage Tank 17	4,000 gallons	None	17-A-195-S1
EP- B11TF-122	TK122	Building 11 Storage Tank 122	6,000 gallons	None	17-A-196-S1
EP- B11TF-123	TK123	Building 11 Storage Tank 123	6,000 gallons	None	17-A-197-S1
EP- B11TF-124	TK124	Building 11 Storage Tank 124	6,000 gallons	None	17-A-198-S1
EP- B11TF-125	TK125	Building 11 Storage Tank 125	6,000 gallons	None	17-A-199-S1

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽¹⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.

- iii. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
- iv. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those

covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.

- iii) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- iv) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr ⁽³⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- ⁽³⁾ Emission limits apply to B37 Processing Plant. This limit applies to all of the emission episodes listed in operating limit section of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only store materials for the EC12, Building 37 (B37), 4L, and SF processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for packaging and bulk terminal operations in the tanks in the Building 11 (B11) tank farm.
 - (1) For all materials stored in the tanks in the Building 11 (B11) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. EC12, B37, 4L, SF, and 4L/SF/EC44 processing lines; and packaging and bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B11 tank farm.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission

factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.

- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures,

- vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition J.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63,

Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition J.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.

N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.

- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Storage Tanks
- Gas Sweep
- Solids Handling
- Evaporation from Screens and Open Tanks
- Heating
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- P. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition O.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for

Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

(6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

(7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

Q. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.

(1) The permittee shall use the operating scenarios required in Condition O.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

R. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.

S. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

T. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

Conditions for storing materials for the packaging and bulk terminal operations

U. Packaging and bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. 4L, South Flowable, EC12, B37, etc.). These materials are brought to the facility, stored, processed, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.

V. The amount of VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B11 tank farm shall not exceed 175.0 Million Gallons per rolling twelve-month period.

- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B11 tank farm:

- a) The identification and origins of each VOC-containing material;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.
- W. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B11 tank farm shall be less than 10.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B11 tank farm.

Conditions for storing materials for the EC12 processing line

- X. The amount of VOC-containing material from or for the EC12 processing line that is stored in the tanks in B11 tank farm shall not exceed 25.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that is stored in the tanks in B11 tank farm:
 - a) The identification and origins of each VOC-containing material;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material stored.
- Y. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process that is stored in the tanks in B11 tank farm shall be less than 10.0 psia · lb/lb · mol.
- (2) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process stored in the tanks in B11 tank farm.

NSPS or NESHAP Requirements

- Z. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B11 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B11.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B11.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B11 exceeds 15.0 kPa.

- AA. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (2) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- BB. The owner or operator shall determine and document which storage tanks covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- CC. The material stored in the bulk storage tanks in B11 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (3) The owner or operator shall determine and document the maximum true vapor pressure and the group status for the storage tanks that are part of a miscellaneous organic chemical process unit for the B11 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- DD. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- EE. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of the tanks or process or formulations changes to any tank that is part of a MCPU and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B12-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B12-EL

Emission Unit vented through this Emission Point: B12-EL

Emission Unit Description: Equipment Leaks for the B12 Packaging Line

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-705-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for the B12 Packaging Line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (2) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- C. The permittee shall retain the Safety Data Sheet (SDS) for all VOC containing materials used in the emission units covered under this permit.
- D. The equipment used in the B12 Packaging Line shall have a maximum of 243 heavy liquid valves, 50 heavy liquid pumps, 1358 connectors, and 26 heavy liquid sample connections. The process shall not use any light liquid components, gas valves,

compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in the B12 Packaging Line to handle any VOC-containing material.

- (2) The owner or operator shall count and document the number and types of components used in the B12 Packaging Line. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (3) The company shall modify the component count whenever the number of components change.

E. The equipment used in the B12 Packaging Line for the EC17 Processing Line shall have a maximum of 120 heavy liquid valves, 22 heavy liquid pump, 360 heavy liquid connectors, and 2 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in B13 for the EC17 Processing Line.

- (3) The owner or operator shall count and document the number and types of components used in the B12 Packaging Line for the EC17 Processing Line. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (4) The company shall modify the component count whenever the number of components change.

NSPS and NESHAP Requirements

- A. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (4) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- B. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - (2) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the

permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.

- C. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in the B12 Packaging Line.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-705-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-705-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B12 Packaging Reservoir and Line

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #	Raw Material
EP-B12 - PR1	EUB12- PR1	B12 Packing Reservoir	34 gallons	None	17-A-703-S1	Herbicide
EP- B12-PL1	EU- B12-P1	B12 Packaging Line	63,360 gallons/hr	None	17-A-704-S1	Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 10 tons/yr⁽¹⁾, 22 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- (1) Emission limits apply to B12 Packing Reservoir and Packaging Line. This limit applies to all of the emission episodes listed in operational limits section of this permit for all products packaged on the B12 Packaging Line.
- (2) Emission limits apply to EC17 Processing Line. This limit applies to all of the emission units and emission episodes for the EC17 Processing Line listed in operational limits section of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for the B12 Packaging Line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (3) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- C. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC containing materials used in the emission units covered under this permit.
- D. The permittee shall package a maximum of 22 million gallons of material in the B12 Packaging Line per rolling 12-month period.
 - (1) The owner or operator shall record on a monthly basis; the amount of material packaged at the facility, in gallons, and calculate and record rolling 12-month totals.
- E. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 17-397) the owner or operator shall document and maintain a record of the following:
 - (1) A description of the project (Project Number 17-397),
 - (2) Identification of the emission unit(s) whose emissions of VOC could be affected by the project (Project Number 17-397), and
 - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- F. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
 - (1) Monitor VOC emissions that could increase as a result of the project that is emitted by any emissions units identified in Condition E.(2).
 - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
- G. Per 567 IAC 33.3(18)"f"(5), the owner or operator shall retain a written record containing the information required in Condition F. of this permit for a period of ten (10) years after the project (Project Number 17-397) is completed.
- H. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

Recordkeeping for the B12 Packaging Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (10.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the packaging of products done in the B12 Packaging Line:

Displacement and Packaging

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this document.

- I. The facility shall document each product packaged in the B12 Packaging Line. This shall include the product name and which production line it was produced in, if applicable.
- J. For each product packaged in the B12 Packaging Line, that contains a VOC-containing material, the permittee shall determine and record the following information:
 - (1) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each product.
 - (2) The permittee shall calculate and record the VOC emission rate (tons per gallon) for each emission episode based on the material used. The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - (3) For each product, the facility shall calculate and document the total VOC emission rate (tons per gallon) by summing the emission rate of each emission episode.
- K. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material packaged; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The amount of each product packaged, in gallons.

- L. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The amount of each product packaged, in gallons.
 - (2) The total amount of VOC emissions for each product packaged, in gallons.
 - (3) The total amount of VOC emissions for all products packaged, in gallons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products packaged, in gallons.
- M. If the 12-month rolling total of the VOC emissions exceeds 7.5.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The amount of each product packaged, in gallons.
 - (2) The total amount of VOC emissions for each product packaged, in gallons.
 - (3) The total amount of VOC emissions for all products packaged, in gallons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products packaged, in gallons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 7.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 7.5 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the EC17 Processing Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the EC17 Processing Line. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EC17-1 and EC17-2 and the EC17 Packaging Line as well as those from miscellaneous sources related to EC17 Processing Line production, including emissions from drum heating, ancillary packaging emissions, laboratory activity, and tank and floor cleaning. The limit also covers emissions from the B12 Packaging Line and Tank TK-22 in building B13 when processing materials from the EC17 Processing Line. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the EC17 Processing Line:

Displacement, Packaging, and Bulk Loadout (Filling)

Storage Tanks

Gas Sweep

Solids Handling

Evaporation

Heating

Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- N. For each product produced in the EC17 Processing Line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition 5.O. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or more recent) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG).
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other

Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- O. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition 5.O above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- P. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard and nonstandard batches completed for each product produced.
- Q. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.

- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

R. If the 12-month rolling total of the VOC emissions exceeds 18.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in Section 1 of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- S. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (3) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B13-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B13-EL

Emission Unit vented through this Emission Point: B13-EL

Emission Unit Description: Building 13 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-203-S2

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 13 (B13) equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. EC12, 4L, SF, NF, 4L/SF/EC44 or EC17 processing lines; or bulk terminal operations).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B13 equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall

be initiated promptly upon discovery.

- D. The equipment used in the B13 tank farm and the associated loadouts shall have a maximum of 190 heavy liquid valves, 22 heavy liquid pumps, 1474 heavy liquid connectors, and 22 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in the B13 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall count and document the number and types of components used in B13. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

Operating Limits and Recordkeeping Requirements for Equipment Used for the 4L and SF processing lines

- E. The equipment used in B13 for the 4L and South Flowable (SF) processing lines shall have a maximum of 39 heavy liquid valves, 4 heavy liquid pumps, 329 connectors, and 4 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in B13 for the 4L and SF processing lines.
- (1) The owner or operator shall count and document the number and types of components used in B13 for the 4L and SF processing lines. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

Operating Limits and Recordkeeping Requirements for Equipment Used for the 4L or SF and EC44 processing lines

- F. The equipment used in B13 for the production of products co-produced in the 4L or SF and EC44 processing lines shall have a maximum of 39 heavy liquid valves, 4 heavy liquid pumps, 329 connectors, and 4 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines,

or pressure relief valves. This shall include all of the equipment used in B13 for the 4L and SF processing lines.

- (1) The owner or operator shall count and document the number and types of components used in B13 for the production of products co-produced in the 4L or SF and EC44 processing lines. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

Operating Limits and Recordkeeping Requirements for Equipment Used for the North Flowable Liquids Plant

- G. The equipment used in B13 for the North Flowable Liquid Plant shall have a maximum of 12 liquid valves, 2 liquid pumps, and 76 connectors. The process shall not use any gas valves, compressors, open-ended lines, sample connections, agitators, or pressure relief valves. This shall include all of the equipment used in B13 for the North Flowable Liquid Plant.
- H. The maximum HAP content of any material used in the equipment for the North Flowable Liquids Plant in B13 that is in light liquid service shall be 65.0%, by weight.
- I. The maximum methanol content of any material used in the equipment for the North Flowable Liquids Plant in B13 shall be 13.0%, by weight.
- J. The maximum triethylamine content of any material used in the equipment for the North Flowable Liquids Plant in B13 shall be 13.0%, by weight.
- K. The facility shall identify and document each component used in B13 for the North Flowable Liquids Plant. Components include, but are not limited to, valves, pumps, connectors, compressor seals, pressure relief valves, open-ended lines, sample connections, agitators, etc. For each component, the facility shall document:
 - (1) The type of component (liquid valve, liquid pump, etc.). The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures;
 - (2) the percent by weight HAP, for all light liquids used in the equipment for the North

- Flowable Liquids Plant in B13;
- (3) the percent by weight methanol for all liquids used in the equipment for the North Flowable Liquids Plant in B13;
- (4) the percent by weight triethylamine for all liquids used in the equipment for the North Flowable Liquids Plant in B13.

L. The facility shall document the total number of each type of component (liquid valve, liquid pump, etc.) used in the North Flowable Liquid Plant in B13.

M. The company shall modify the component lists in Condition 5.K whenever changes are made to the materials or equipment used in B13 for the North Flowable Liquid Plant.

Operating Limits and Recordkeeping Requirements for Equipment Used for the EC17 Processing Line

N. The equipment used in B13 for the EC17 Processing Line shall have a maximum of 12 heavy liquid valves, 1 heavy liquid pump, 112 heavy liquid connectors, and 3 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in B13 for the EC17 Processing Line.

(1) The owner or operator shall count and document the number and types of components used in B13 for the EC17 Processing Plant. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.

(2) The company shall modify the component count whenever the number of components change.

NSPS and NESHAP Requirements

O. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

(1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

P. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.

(1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the

record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.

Q. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in B13.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-203-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-203-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B13-TF

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B13-TF

Emission Unit vented through this Emission Point: B13-TF

Emission Unit Description: Building 13 Storage Tanks

Raw Material/Fuel: Herbicide

Rated Capacity: 20,000 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permit 17-A-202-S2

- ⁽¹⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- i. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
 - ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-202-S2

- ⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- i. The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
 - ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44

processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr ⁽³⁾

Authority for Requirement: DNR Construction Permit 17-A-202-S2

⁽³⁾ Emission limits apply to the EC17 Processing Line. This limit applies to all of the emission units and emission episodes for the EC17 Processing Line listed in operational limits section of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials for the EC12, 4L, South Flowable (SF), North Flowable (NF), and EC17 processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for bulk terminal operations in the Building 13 (B13) storage tanks.
 - (1) For all materials stored in the tanks in the Building 13 (B13) storage tanks, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. EC12, 4L, SF, NF, 4L/SF/EC44 or EC17 processing lines; or bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B13 storage tanks.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling

Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition 5.E. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other

Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.

- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

(6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

(7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition 5.E above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition 5.K. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition 5.K above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.
- N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily

calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the EC17 Processing Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the EC17 Processing Line. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EC17-1 and EC17-2 and the EC17 Packaging Line as well as those from miscellaneous sources related to EC17 Processing Line production, including emissions from drum heating, ancillary packaging emissions, laboratory activity, and tank and floor cleaning. The limit also covers emissions from the B12 Packaging Line and Tank TK-22 in building B13 when processing materials from the EC17 Processing Line. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the EC17 Processing Line:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- P. For each product produced in the EC17 Processing Line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition P.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be

based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or more recent) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG).
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

- Q. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition P.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- R. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard and nonstandard batches completed for each product produced.
- S. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- T. If the 12-month rolling total of the VOC emissions exceeds 18.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- U. The tanks vented in the B13 tank farm shall not store liquids with a true vapor pressure of

greater than 15 kilopascals (kPa).

(1) For all material stored in the tanks in the B13 tank farm the owner or operator shall record and document the maximum true vapor pressure.

V. The owner or operator shall determine and document which storage tank covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.

W. The material stored in the storage tanks that are part of a miscellaneous organic chemical process unit with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.

(1) The owner or operator shall determine and document the group status for the storage tanks covered under this permit that are part of any miscellaneous organic chemical process unit, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

X. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.

(1) The facility shall document all changes in the contents of the tanks or process or formulations changes to any tank that is part of a MCPU and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for the bulk terminal operations

Y. Bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. EC12, 4L, South Flowable (SF), 4L/SF/EC44, North Flowable (NF), and EC17 (EC W1 & ECW2), etc.). These materials are brought to the facility, stored, processed, and then loaded into tankers or railcars and transferred off site.

Z. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations that is stored in the tanks in B13 tank farm shall be less than 10.0 psia · lb/lb · mol.

(1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B13 tank farm.

Conditions for storing materials for the EC12 processing line

AA. The amount of VOC-containing material from or for EC12 process that is stored in the tanks in B13 tank farm shall not exceed 25.0 Million Gallons per rolling twelve-month period.

(1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that is stored in the tanks in B13 tank farm:

- a) The identification and origins of each VOC-containing material;
- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;

- c) the amount of VOC-containing material stored;
- d) the twelve month total rolling total of VOC-containing material stored.

BB. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process that is stored in the tanks in B13 tank farm shall be less than 10.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process stored in the tanks in B13 tank farm.

Conditions for storing materials for the North Flow (NF) processes

CC. The amount of VOC-containing material from or for NF process that is stored in the tanks in B13 tank farm shall not exceed 25.0 Million Gallons per rolling twelve-month period.

- (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the NF process that is stored in the tanks in B13 tank farm:
 - a) The identification and origins of each VOC-containing material;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material stored.

DD. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the NF process that is stored in the tanks in B13 tank farm shall be less than 10.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the NF process stored in the tanks in B13 tank farm.

Authority for Requirement: DNR Construction Permit 17-A-202-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-202-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 6
- Stack Opening, (inches, dia.): 6
- Exhaust Flow Rate (scfm): Displacement
- Exhaust Temperature (°F): 70
- Discharge Style: Downward
- Authority for Requirement: DNR Construction Permit 17-A-202-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 13 Truck and Hose Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B13-LO 13-1	EU-B13-LO 13-1	Building 13 Truck Loadout 1	400 gallons/min	None	17-A-201-S1
EP- B13-LO 13-2	EU-B13-LO 13-2	Building 13 Truck Loadout 2	400 gallons/min	None	19-A-424
EP- B13-LO 13-3	EU-B13-LO 13-3	Building 13 Truck Loadout 3	400 gallons/min	None	19-A-425
EP- B13-LO 13-4	EU-B13-LO 13-4	Building 13 Truck Loadout 4	400 gallons/min	None	19-A-426
EP- B13-LO 13-5	EU-B13-LO 13-5	Building 13 Truck Loadout 5	400 gallons/min	None	19-A-427
EP- B13-LO 13-6	EU-B13-LO 13-6	Building 13 Truck Loadout 6	400 gallons/min	None	19-A-428
EP- B13-LO 13-7	EU-B13-LO 13-7	Building 13 Hose Loadout 1	400 gallons/min	None	19-A-441
EP- B13-LO 13-8	EU-B13-LO 13-8	Building 13 Hose Loadout 2	400 gallons/min	None	19-A-442

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽¹⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.

- i. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
- ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
- iii. EPB13-LO includes all loadouts for the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8).

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱⁱ⁾, EPB13-LO⁽ⁱⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.

- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
- iii) EPB13-LO includes all loadouts for the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8).

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials for the EC12, 4L, and SF, processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for bulk terminal operations (see definition in Condition 5.T) in the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8).
 - (1) For all materials transferred in the B13 Product Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the VOC-containing material transferred,
 - c) the origins of the VOC-containing material (i.e. EC12 processing line, bulk terminal operations, etc.); and
 - d) the amount of VOC-containing material transferred.
 - (2) For all materials transferred in the B13 Product Loadouts from the listed processing lines, the owner or operator shall record and document:

- a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
- b) the vapor pressure.
- (3) For all materials transferred in the B13 Product Loadouts for the bulk terminal operations, the owner or operator shall record and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
- (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the B13 Product Truck Loadouts.

C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Gas Sweep
- Solids Handling
- Evaporation from Screens and Tank Evaporation
- Heating
- Bulk Storage Tank Emissions
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.

- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4Lor SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.

- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2,

Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (2) The permittee shall use the operating scenarios required in Condition D.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.

- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

P. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Q. For each loadout covered under this permit, the owner or operator shall determine and document:

- (1) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject,:
 - a) if it is a transfer rack, per the definition in § 63.2550,
 - b) to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - c) the group status, as defined §63.2550.
- (2) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

R. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a

miscellaneous organic chemical process unit for the transfer racks covered under this permit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that this transfer rack is subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.

(1) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.

S. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B13.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the packaging and bulk terminal operations

T. Packaging and bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. 4L, South Flowable, EC12, 4L/SF/EC44, etc.). These materials are brought to the facility, stored, processed, and then packaged in containers or drums or loaded into tankers or railcars and transferred off site.

U. The amount of VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8) shall not exceed 40.0 Million Gallons per rolling twelve-month period.

(1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8):

- a) The identification and origins of each VOC-containing material transferred;
- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
- c) the amount of VOC-containing material transferred;
- d) the twelve month total rolling total of VOC-containing material transferred.

V. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations loaded out (transferred) in the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8) shall be less than 10.0 psia · lb/lb · mol.

(1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in the B13 Product Loadouts (EP-B13-LO 13-1 - EP-B13-LO 13-8).

Conditions for product loadout for the EC12 processing line

W. The amount of VOC-containing material for the EC12 processing line loaded out

(transferred) in the B13 Product Loadouts (EU-B13-LO 13-1 – EU-B13-LO 13-8) shall be less than exceed 25.0 Million Gallons per rolling twelve-month period.

(1) The permittee shall maintain the following monthly records for all VOC-containing material for the EC12 processing line transferred in the B13 Product Loadouts (EU-B13-LO 13-1 – EU-B13-LO 13-8):

- a) The identification and origins of each VOC-containing material transferred;
- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
- c) the amount of VOC-containing material transferred;
- d) the twelve month total rolling total of VOC-containing material transferred.

X. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B13 Product Loadouts (EU-B13-LO 13-1 – EU-B13-LO 13-8) shall be less than 10.0 psia · lb/lb · mol.

(1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in the B13 Product Loadouts (EU-B13-LO 13-1 – EU-B13-LO 13-8).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 15 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B15-N	TK40	Building 15 Storage Tank 40	15,500 gallons	None	18-A-413
	TK41	Building 15 Storage Tank 41	15,500 gallons	None	
	TK42	Building 15 Storage Tank 42	15,500 gallons	None	
	TK43	Building 15 Storage Tank 43	15,500 gallons	None	
	TK44	Building 15 Storage Tank 44	15,500 gallons	None	
	TK45	Building 15 Storage Tank 45	15,500 gallons	None	
	TK46	Building 15 Storage Tank 46	15,500 gallons	None	
	TK47	Building 15 Storage Tank 47	15,500 gallons	None	
	TK48	Building 15 Storage Tank 48	15,500 gallons	None	
	TK49	Building 15 Storage Tank 49	15,500 gallons	None	
	TK50	Building 15 Storage Tank 50	15,500 gallons	None	
	TK51	Building 15 Storage Tank 51	15,500 gallons	None	
EP- B15-E	TK52	Building 15 Storage Tank 52	15,500 gallons	None	18-A-414
	TK53	Building 15 Storage Tank 53	15,500 gallons	None	
	TK54	Building 15 Storage Tank 54	15,500 gallons	None	
	TK55	Building 15 Storage Tank 55	15,500 gallons	None	
	TK56	Building 15 Storage Tank 56	15,500 gallons	None	
	TK57	Building 15 Storage Tank 57	15,500 gallons	None	
	TK58	Building 15 Storage Tank 58	15,500 gallons	None	
	TK59	Building 15 Storage Tank 59	15,500 gallons	None	
	TK60	Building 15 Storage Tank 60	15,500 gallons	None	
	TK61	Building 15 Storage Tank 61	15,500 gallons	None	
	TK62	Building 15 Storage Tank 62	15,500 gallons	None	

	TK63	Building 15 Storage Tank 63	15,500 gallons	None	
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Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.G) in the B15 tank farm.
 - (1) For all materials stored in the Building 15 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material stored,
 - c) the amount of VOC-containing material stored.
 - d) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - e) if the material is an organic liquid, as defined in §63.2406.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B15 storage tanks.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B15 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B15.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B15.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B15 exceeds 15.0 kPa.
- E. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- F. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.
- H. The amount of VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B15 tank farm shall not exceed 50.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B15 tank farm:
 - a) The identification and origins of each VOC-containing material;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B15 tank farm shall be less than 10.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B15 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B15-N	12	Downward	6	74	Displacement
EP-B15-E	12	Downward	6	74	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B15-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B15-EL

Emission Unit vented through this Emission Point: B15-EL

Emission Unit Description: Building 15 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 18-A-415

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 15 (B15) equipment leak components, the owner or operator shall record and document the material handled and the origins of the material (i.e. specific processing line, bulk terminal materials, etc.).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B15 equipment leak components.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment leak components used in the B15 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 131 light liquid valves, 8 light liquid pumps, 622 light liquid connectors, and 2 sample connections. The process shall not use any heavy liquid components, gas valves, compressors, open-ended lines, agitators, or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B15 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall document the number of each type equipment leak component used in B25 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

NESHAP Requirements (Building 21 Process Area, EC12 Processing Line)

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1020 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Buildings 21, 25, 26, and 27.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-415

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 15 Loadouts and Hose

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B15-LO-1	B15-LO-1	Building 15 Loadout 1	2,500 gallons/hr	None	18-A-410
EP-B15-LO-2	B15-LO-2	Building 15 Loadout 2	2,500 gallons/hr	None	18-A-411
EP-B15-Hose	B15-Hose	Building 15 Loadout Hose	2,500 gallons/hr	None	18-A-412

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.F) in emission points EP-B15-LO-1, EP-B15-LO-2, and EP-B15-Hose.
 - (1) For all materials transferred in the Building 15 Loadouts, the owner or operator shall record and document:
 - a) the loadout used;

- b) the amount of VOC-containing material transferred;
 - c) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - d) if the material is an organic liquid, as defined in §63.2406
- (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 15 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. For each loadout covered under this permit, the owner or operator shall determine and document if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- E. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B15.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 15

- F. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 15. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- G. The amount of VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B11 Product Tanker Loadout (EU-B11-LO) and the Product Packaging, Mini-bulk Loadout (EU-B11-Packaging), EU-B15-LO-1, EU-B15-LO-2, and EU-B15-Hose shall not exceed 50.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in emission units EU-B11-LO and EU-B11-Packaging and Building 15 (B15):
- a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- H. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B11

Product Tanker Loadout (EU-B11-LO), the Product Packaging and Mini-bulk Loadout (EU-B11-Packaging), EU-B15-LO-1, EU-B15-LO-2, and EU-B15-Hose, shall be less than 10.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in emission units EU-B11- LO, EU-B11-Packaging, EU-B15-LO-1, EU-B15-LO-2, and EU-B15-Hose.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 17 Truck Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B17-LO 17-1	EU-B17-LO 17-1	Building 17 Truck Loadout 1	400 gallons/min	None	17-A-204-S1
EP- B17-LO 17-2	EU-B17-LO 17-2	Building 17 Truck Loadout 2	400 gallons/min	None	19-A-429
EP- B17-LO 17-3	EU-B17-LO 17-3	Building 17 Truck Loadout 3	400 gallons/min	None	19-A-430
EP- B17-LO 17-4	EU-B17-LO 17-4	Building 17 Truck Loadout 4	400 gallons/min	None	19-A-431

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- ⁽¹⁾ Emission limits requested by facility to limit the potential emissions for the 4L and South Flowable (SF) processing lines below the PSD significance thresholds. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾ ⁽ⁱⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- i. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
 - ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
 - iii. EPB17-LO includes all loadouts for the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4).

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- ⁽²⁾ Emission limits requested by facility to limit the potential emissions from the production of products co-produced in the 4L or SF and EC44 processing lines below the PSD significance thresholds. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44

processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.

- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
- iii) EPB17-LO includes all loadouts for the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4)

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials for the EC12, 4L, and SF, processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for bulk terminal operations (see definition in Condition 5.T) in the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4).
 - (1) For all materials transferred in the B17 Product Truck Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the VOC-containing material transferred,
 - c) the origins of the VOC-containing material (i.e. EC12 processing line, bulk terminal operations, etc.); and
 - d) the amount of VOC-containing material transferred.
 - (2) For all materials transferred in the B17 Product Truck Loadouts from the listed processing lines, the owner or operator shall record and document:
 - a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and

- b) the vapor pressure.
- (3) For all materials transferred in the B17 Product Truck Loadouts for the bulk terminal operations, the owner or operator shall record and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
- (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the B17 Product Truck Loadouts.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Gas Sweep
- Solids Handling
- Evaporation from Screens and Tank Evaporation
- Heating
- Bulk Storage Tank Emissions
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.

- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition E~~D~~.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

- F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition ED.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.

- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4Lor SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition K.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for

Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

(6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

(7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.

(1) The permittee shall use the operating scenarios required in Condition K.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.

- N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Section 1 of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- P. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (4) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- Q. For each loadout covered under this permit, the owner or operator shall determine and document:
- (3) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject:
 - d) if it is a transfer rack, per the definition in § 63.2550,
 - e) to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - f) the group status, as defined §63.2550.
 - (4) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission

Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

- R. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that this transfer rack is subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.
- (2) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- S. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4).
- (3) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the packaging and bulk terminal operations

- T. Packaging and bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. 4L, South Flowable, 4L/SF/EC44, etc.). These materials are brought to the facility, stored, processed, and then packaged in containers or drums or loaded into tankers or railcars and transferred off site.
- U. The amount of VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4) shall not exceed 60.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4):
- a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- V. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations loaded out (transferred) in the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4) shall be less than 10.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular

weight of each VOC-containing material for the packaging and bulk terminal operations transferred in the B17 Product Truck Loadouts (EP-B17-LO 17-1 - EP-B17-LO 17-4).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 17 Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-EC17 - PR1	EU-EC17- PR1	B17 Packing Reservoir	34 gallons	None	19-A-092
EP- EC17 -PL1	EU- EC17 -PL1	B17 Packaging Line	12,000 gallons/hr	None	19-A-093

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 22 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- (2) Emission limits apply to EC17 Processing Line. This limit applies to all of the emission units and emission episodes listed in operational limit section of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- P. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (2) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- Q. For all VOC containing materials used in EC17 Processing Line, the owner or operator shall record and document the materials used.

- R. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- S. The permittee shall produce a maximum of 7.0 million gallons of product in the EC17 Processing Plant per rolling 12-month period.
 - (2) The owner or operator shall record on a monthly basis the amount of product produced in the EC17 Processing Plant, in gallons, and calculate and record rolling 12-month totals.

Recordkeeping for the EC17 Processing Line VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the EC17 Processing Line. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EC17-1 and EC17-2 and the EC17 Packaging Line as well as those from miscellaneous sources related to EC17 Processing Line production, including emissions from drum heating, ancillary packaging emissions, laboratory activity, and tank and floor cleaning. The limit also covers emissions from the B12 Packaging Line and Tank TK-22 in building B13 when processing materials from the EC17 Processing Line. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the EC17 Processing Line:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Storage Tanks
- Gas Sweep
- Solids Handling
- Evaporation
- Heating
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- T. For each product produced in the EC17 Processing Line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (8) The permittee shall identify and document each product produced.
 - (9) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (10) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the

equations listed below in Condition 5.E. The facility shall document and provide a justification for the value for each input used.

- (11) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (12) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - h. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
 - i. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or more recent) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - j. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG).
 - k. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - l. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - m. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - n. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (13) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (14) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- U. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (2) The permittee shall use the operating scenarios required in Condition 5.E above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- V. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (3) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (4) The daily number of standard and nonstandard batches completed for each product produced.
- W. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (5) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (6) The total amount of VOC emissions for each product produced, in tons.
- (7) The total amount of VOC emissions for all products produced, in tons.
- (8) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- X. If the 12-month rolling total of the VOC emissions exceeds 18.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (5) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (6) The total amount of VOC emissions for each product produced, in tons.
- (7) The total amount of VOC emissions for all products produced, in tons.
- (8) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of

VOC emissions will cease per this section of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- Y. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (2) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- Z. All batch process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (4) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (5) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the EC17 Processing Line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (6) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- e. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - f. A record of whether each batch operated was considered a standard batch.
 - g. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - h. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- AA. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- BB. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the EC17 Processing Line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.

(2) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

CC. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

DD. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the EC17 Processing Line.

(2) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B17TF-East

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): TK99 – TK112

Emission Unit vented through this Emission Point: TK99 – TK112
Emission Unit Description: Building 17 East Storage Tanks 99-112
Raw Material/Fuel: Herbicide
Rated Capacity: 37,542 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 25 tons/yr ⁽¹⁾
Authority for Requirement: DNR Construction Permit 17-A-205-S1

- ⁽¹⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1(i), EPSF –BH1(i), EPSF –BH2(i), EPSF –Vent1(i), EP-B17TF-East(i) (ii), EP-B17TF-West(i) (ii), EPB17-LO(i) (ii), EPB11-LO(i) (ii), EP-B13TF-1(i) (ii), EPB13-LO(i) (ii), and those covered under the 4L Process Line CAP permit(i) and the Building 11 Storage Tanks CAP permit(i) (ii). The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- i) The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
 - ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 21 tons/yr ⁽²⁾
Authority for Requirement: DNR Construction Permit 17-A-205-S1

- ⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱⁱⁱ⁾, EP4L-BH1, EPSF –BH1, EPSF –BH2, EPSF –Vent1, EP-B17TF-East⁽ⁱⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱⁱ⁾, EPB17-LO⁽ⁱⁱⁱ⁾, EPB11-LO⁽ⁱⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱⁱ⁾, EPB13-LO⁽ⁱⁱⁱ⁾, and those covered under the 4L Process Line CAP permit and the Building 11 Storage Tanks CAP permit⁽ⁱⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This

- limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials for the 4L and South Flowable (SF) processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for bulk terminal operations in the Building 17 (B17) tank farm.
 - (1) For all materials stored in the tanks in the Building 17 (B17) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. 4L, South Flowable (SF), and 4L/SF/EC44 processing lines; and bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B17 tank farm.

- C. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.

- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (2) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in Condition 1 of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- E. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- F. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition FØ.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee

according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- G. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition F.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- H. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- I. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- J. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this Condition of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- K. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- L. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in

the equations listed below in Condition LD.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

- M. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition LD.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- N. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.

- O. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

- P. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- Q. The tanks vented by EP-B17TF- West in the B17 Tank Farm shall not store liquids with a true vapor pressure of greater than 15 kilopascals (kPa).
- (1) For all material stored in the tanks vented by EP-B17TF- West the owner or operator shall record and document the maximum true vapor pressure.
- R. The owner or operator shall determine and document which storage tank covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- S. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks covered under this permit that are part of any miscellaneous organic chemical process unit, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- T. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of the tanks or process or formulations changes to any tank that is part of a MCPU and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for the bulk terminal operations

- U. Bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. 4L, South Flowable (SF), 4L/SF/EC44, etc.). These materials are brought to the facility, stored, processed, and then loaded into tankers or railcars and transferred off site.

- V. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations that is stored in the tanks in B17 tank farm shall be less than 10.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B17 tank farm.

Authority for Requirement: DNR Construction Permit 17-A-205-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-205-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): Displacement
Exhaust Temperature (°F): 70
Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 17-A-205-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B17TF-West

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): TK113 – TK119

Emission Unit vented through this Emission Point: TK113 – TK119

Emission Unit Description: Building 17 West Storage Tanks 113-119

Raw Material/Fuel: Herbicide

Rated Capacity: 37,542 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr ⁽¹⁾

Authority for Requirement: DNR Construction Permit 17-A-206-S1

- ⁽¹⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1(i), EPSF –BH1(i), EPSF –BH2(i), EPSF –Vent1(i), EP-B17TF-East(i) (ii), EP-B17TF-West(i) (ii), EPB17-LO(i) (ii), EPB11-LO(i) (ii), EP-B13TF-1(i) (ii), EPB13-LO(i) (ii), and those covered under the 4L Process Line CAP permit(i) and the Building 11 Storage Tanks CAP permit(i) (ii). The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- i) The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
 - ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-206-S1

- ⁽²⁾ Emission limits apply to the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱⁱⁱ⁾, EP4L-BH1, EPSF –BH1, EPSF –BH2, EPSF –Vent1, EP-B17TF-East⁽ⁱⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱⁱ⁾, EPB17-LO⁽ⁱⁱⁱ⁾, EPB11-LO⁽ⁱⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱⁱ⁾, EPB13-LO⁽ⁱⁱⁱ⁾, and those covered under the 4L Process Line CAP permit and the Building 11 Storage Tanks CAP permit⁽ⁱⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This

- limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials for the 4L and South Flowable (SF) processing lines; materials for or from the production of products co-produced in the 4L or SF and EC44 processing lines (4L/SF/EC44); and for bulk terminal operations in the Building 17 (B17) tank farm.
 - (1) For all materials stored in the tanks in the Building 17 (B17) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. 4L, South Flowable (SF), and 4L/SF/EC44 processing lines; and bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B17 tank farm.

- C. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.

- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- E. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- F. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition F.D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission

factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- G. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition F.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- H. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- I. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- J. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit drops below 19.0 tons for the remainder of

the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this Condition of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- K. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- L. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition L~~D~~.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.

- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

M. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition LD.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

N. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.

O. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

P. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.

- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- Q. The tanks vented by EP-B17TF- West in the B17 Tank Farm shall not store liquids with a true vapor pressure of greater than 15 kilopascals (kPa).
- (1) For all material stored in the tanks vented by EP-B17TF- West the owner or operator shall record and document the maximum true vapor pressure.
- R. The owner or operator shall determine and document which storage tank covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- S. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks covered under this permit that are part of any miscellaneous organic chemical process unit, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- T. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of the tanks or process or formulations changes to any tank that is part of a MCPU and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for the bulk terminal operations

- U. Bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. 4L, South Flowable (SF), 4L/SF/EC44, etc.). These materials are brought to the facility, stored, processed, and then loaded into tankers or railcars and transferred off site.

V. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations that is stored in the tanks in B17 tank farm shall be less than 10.0 psia · lb/lb · mol.

(1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B17 tank farm.

Authority for Requirement: DNR Construction Permit 17-A-206-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-206-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 8

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 70

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 17-A-206-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B17-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B17-EL

Emission Unit vented through this Emission Point: B17-EL

Emission Unit Description: Building 17 Tank Farm Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-207

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 17 (B17) equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. 4L and SF processing lines, bulk terminal materials).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B17 equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment used in the B17 tank farm and the associated loadouts shall have a maximum of 172 heavy liquid valves, 9 heavy liquid pumps, 700 heavy liquid connectors, and 6 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in the B17 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall count and document the number and types of components used in B17. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

NSPS and NESHAP Subpart FFFF Requirements

- E. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in B17.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.
- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permit 17-A-207

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-207
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 21 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B21-E	TK132	Building 21 Storage Tank 132	18,952 gallons	None	18-A-341
	TK133	Building 21 Storage Tank 133	18,952 gallons	None	
	TK134	Building 21 Storage Tank 134	18,952 gallons	None	
	TK135	Building 21 Storage Tank 135	18,952 gallons	None	
	TK136	Building 21 Storage Tank 136	18,894 gallons	None	
	TK137	Building 21 Storage Tank 137	18,952 gallons	None	
	TK138	Building 21 Storage Tank 138	18,952 gallons	None	
EP- B21-F	TK139	Building 21 Storage Tank 139	18,952 gallons	None	18-A-342
	TK140	Building 21 Storage Tank 140	18,894 gallons	None	
	TK141	Building 21 Storage Tank 141	17,960 gallons	None	
	TK142	Building 21 Storage Tank 142	17,960 gallons	None	
	TK143	Building 21 Storage Tank 143	17,960 gallons	None	
	TK144	Building 21 Storage Tank 144	17,960 gallons	None	
	TK145	Building 21 Storage Tank 145	18,952 gallons	None	
EP- B21-G	TK146	Building 21 Storage Tank 146	18,952 gallons	None	18-A-343
	TK147	Building 21 Storage Tank 147	17,960 gallons	None	
	TK148	Building 21 Storage Tank 148	17,960 gallons	None	
	TK149	Building 21 Storage Tank 149	17,960 gallons	None	
	TK150	Building 21 Storage Tank 150	17,960 gallons	None	
	TK151	Building 21 Storage Tank 151	17,960 gallons	None	

	TK152	Building 21 Storage Tank 152	18,952 gallons	None	
EP- B21-H	TK153	Building 21 Storage Tank 153	18,952 gallons	None	18-A-344
	TK154	Building 21 Storage Tank 154	18,952 gallons	None	
	TK155	Building 21 Storage Tank 155	18,952 gallons	None	
	TK156	Building 21 Storage Tank 156	18,952 gallons	None	
	TK157	Building 21 Storage Tank 157	18,952 gallons	None	
	TK158	Building 21 Storage Tank 158	18,952 gallons	None	
	TK159	Building 21 Storage Tank 159	18,894 gallons	None	
EP- B21-B	TK160	Building 21 Storage Tank 160	30,847 gallons	None	18-A-345
	TK161	Building 21 Storage Tank 161	30,847 gallons	None	
	TK162	Building 21 Storage Tank 162	30,847 gallons	None	
	TK163	Building 21 Storage Tank 163	30,847 gallons	None	
	TK164	Building 21 Storage Tank 164	30,847 gallons	None	
EP- B21-C	TK165	Building 21 Storage Tank 165	30,847 gallons	None	18-A-346
	TK166	Building 21 Storage Tank 166	30,847 gallons	None	
	TK167	Building 21 Storage Tank 167	30,847 gallons	None	
	TK168	Building 21 Storage Tank 168	30,847 gallons	None	
	TK169	Building 21 Storage Tank 169	30,847 gallons	None	
EP- B21-A	TK170	Building 21 Storage Tank 170	30,847 gallons	None	18-A-347
	TK171	Building 21 Storage Tank 171	30,847 gallons	None	
	TK172	Building 21 Storage Tank 172	30,847 gallons	None	
	TK173	Building 21 Storage Tank 173	30,847 gallons	None	
	TK174	Building 21 Storage Tank 174	30,847 gallons	None	
EP- B21-D	TK175	Building 21 Storage Tank 175	19,054 gallons	None	18-A-348
	TK176	Building 21 Storage Tank 176	19,054 gallons	None	

TK177	Building 21 Storage Tank 177	30,842 gallons	None
TK178	Building 21 Storage Tank 178	27,847 gallons	None
TK179	Building 21 Storage Tank 179	25,773 gallons	None

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Limits for EPs B21D and B21-H

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- (1) Emission limit apply to B21 Process Area. This limit applies to all of the emission units and emission episodes listed in operational limit section of this permit. Only the storage tanks exhausted by EP-21-D and EP-21-H are part of the B21 Process Area and subject to this limit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.H) and the B21 Process Area in B21 tank farm. The owner or operator shall only use the tanks vented by EP-B21-D and EP-B21-H to store materials for the B21 Process Area.
 - (1) For all materials stored in the B21 tank farm, the owner or operator shall determine and document:

- a) the tank used;
 - b) the VOC-containing material transferred;
 - c) the origins of the VOC-containing material (i.e. B21 Process Area, bulk terminal operations, etc.); and
 - d) the amount of VOC-containing material stored.
- (2) For all materials stored in the Building 21 Tank Farm for the B21 Process Area, the owner or operator shall also determine and document:
- a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the maximum true vapor pressure.
- (3) For all materials stored in the Building 21 Tank Farm from the bulk terminal operations, the owner or operator shall also determine and document:
- a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
- (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B21 storage tanks.

C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping Requirements for the Building 21 Process Area VOC Emission Cap

The following monitoring and recordkeeping requirements shall be used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 21 Process Area. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EP-B21PA-Vent1, EP-B21PA- Pack1, EP-B21PA-Pack 2, EP-B21-D, EP-B21-H, EP-B21-LO-8, & EP-B21-Packaging, as well as those from miscellaneous sources related to B21 Process Area production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The VOC emission limit covers the following emission episodes from these emission units for the production (formulation and repackaging) of products made in the Building 21 Process Area:

- Vapor Displacement (Process Tank Material Loading, Bulk Loadout, Vessel/Container Filling/Packaging, Process Tank Cleaning)
- Storage Tanks
- Gas Sweep
- Evaporation from Screens and Open Tanks
- Heating
- Solids Handling
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 21 Process Area, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced (formulated or repackaged) in the Building 21 Process Area.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - (a) For emissions from Vapor Displacement: Material Loading, Bulk Loadout (Filling), Vessel/Container Filling, Process Tank Cleaning, and Packaging, the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - (b) For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - (c) For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for

Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- (d) For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- (e) For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- (f) For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- (g) For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

H. If the 12-month rolling total of the VOC emissions exceeds 16.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 16.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 16.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

I. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic liquids (VOLs), as defined in 40 CFR Part 60.111b, stored in the bulk storage tanks in B21 shall be less than 15.0 kPa.

- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B21.
- (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic liquids (VOLs) stored in the bulk storage tanks in B21.
- (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B21 exceeds 15.0 kPa.

J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

K. For each storage tank covered under this permit, the owner or operator shall determine

and document if the storage tank is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.

- L. The material stored in the bulk storage tanks in B21 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source., as specified for Group 2 storage tanks, in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall determine and document the maximum true vapor pressure of each material stored and the group status for each storage tanks that is part of a miscellaneous organic chemical process unit in the B21 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- M. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

- N. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
 - (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for the bulk terminal operations

- O. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.

- P. The amount of VOC-containing material for the bulk terminal operations that is stored in the tanks in buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations that are stored in the tanks in buildings 21, 25, 26 and 27:
 - (a) The identification of each VOC-containing material stored;
 - (b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - (c) the amount of VOC-containing material stored;
 - (d) the twelve month total rolling total of VOC-containing material process stored.

- Q. The product of the true vapor pressure and the molecular weight of each VOC-containing material stored in the B21 storage tanks for packaging and bulk terminal operations shall be less than 25.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular

weight of each VOC-containing material stored in the B21 storage tanks for packaging and bulk terminal operations.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B21-E	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-F	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-G	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-H	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-B	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-C	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-A	8.0	Vertical with Rain Cap	10	74	Displacement
EP-B21-D	8.0	Vertical with Rain Cap	10	74	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 21, 25, 26, 27 Equipment Leaks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B21-EL	Equipment Leaks (EUB21-EL)	Building 21 (B21) Equipment Leaks	NA	None	18-A-337
EP-B25-EL	Equipment Leaks (EUB25-EL)	Building 25 (B25) Equipment Leaks	NA	None	18-A-338
EP-B26-EL	Equipment Leaks (EUB26-EL)	Building 26 (B26) Equipment Leaks	NA	None	18-A-339
EP-B27-EL	Equipment Leaks (EUB27-EL)	Building 27 (B27) Equipment Leaks	NA	None	18-A-340

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 21 (B21), Building 25 (B25), Building 26 (B26), and Building 27(B27) equipment leak components, the owner or operator shall record and document the material handled and the origins of the material (i.e. specific processing line, bulk terminal materials, etc.).

- (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B21, B25, B26, and B27 equipment leak components.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The equipment leak components used in the B21 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 293 heavy liquid valves, 10 heavy liquid pumps, 1348 heavy liquid connectors, and 10 sample connections. The process shall not use any light liquid components, gas valves, compressors, open-ended lines, agitators or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B21 tank farm and the associated loadouts to handle any VOC-containing material for the Bulk Transfer Operations.
- (1) The owner or operator shall document the number of each type equipment leak component used in B21 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.
- E. The equipment leak components used in the B21 Process Area shall have a maximum of 181 heavy liquid valves, 41 light liquid valves, 25 heavy liquid pumps, 3 light liquid pumps, 1204 heavy liquid connectors, 204 light liquid connectors, 39 sample connections. The process shall not use any gas valves, compressors, open-ended lines, pressure relief valves, or agitators that are in VOC service. This shall include all of the equipment leak components used in the B21 Process Area to handle any VOC-containing material.
- (1) The owner or operator shall document the number of each type equipment leak component used in B21 Process Area. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.
- F. The equipment leak components used in the B25 tank farm and the associated loadouts

used for Bulk Transfer Operations shall have a maximum of 164 heavy liquid valves, 6 heavy liquid pumps, 692 heavy liquid connectors, 5 sample connections. The process shall not use any light liquid components, gas valves, compressors, open-ended lines, agitators or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B25 tank farm and the associated loadouts to handle any VOC-containing material.

- (1) The owner or operator shall document the number of each type equipment leak component used in B25 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

G. The equipment leak components used in the B26 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 311 valves, 15 pumps, 1173 connectors, and 6 sample connections. The process shall not use any gas valves, compressors, agitators, open-ended lines, or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B26 tank farm and the associated loadouts to handle any VOC-containing material.

- (1) The owner or operator shall document the number of each type equipment leak component used in B26 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

H. The equipment leak components used in the B26 tank farm and the associated loadouts for the materials used or produced in the EC12 processing lines shall have a maximum of 40 heavy liquid valves, 1 heavy liquid pumps, 165 heavy liquid connectors, and 1 sample connection. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B21 tank farm and the associated loadouts to handle any VOC-containing material.

- (1) The owner or operator shall document the number of each type equipment leak component used in storage tanks and loadouts associated with the products produced in the EC12 processing lines. Components include but are not limited to valves,

- pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.
- I. The equipment leak components used in the B27 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 254 heavy liquid valves, 10 heavy liquid pumps, 1036 heavy liquid connectors, and 8 sample connections. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B27 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall document the number of each type equipment leak component used in B27 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

NESHAP Requirements (Building 21 Process Area, EC12 Processing Line)

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- K. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1020 - §63.1039. The facility is allowed to change which subpart they are complying with; however,

the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.

- L. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Buildings 21, 25, 26, and 27.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 21 Loadouts and Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B21-LO-1	B21-LO-1	Building 21 Loadout 1	2,500 gallons/hr	None	18-A-349
EP-B21-LO-2	B21-LO-2	Building 21 Loadout 2	2,500 gallons/hr	None	18-A-350
EP-B21-LO-3	B21-LO-3	Building 21 Loadout 3	2,500 gallons/hr	None	18-A-351
EP-B21-LO-4	B21-LO-4	Building 21 Loadout 4	2,500 gallons/hr	None	18-A-352
EP-B21-LO-5	B21-LO-5	Building 21 Loadout 5	2,500 gallons/hr	None	18-A-353
EP-B21-LO-6	B21-LO-6	Building 21 Loadout 6	2,500 gallons/hr	None	18-A-354
EP-B21-LO-7	B21-LO-7	Building 21 Loadout 7	2,500 gallons/hr	None	18-A-355
EP-B21-LO-8	B21-LO-8	Building 21 Loadout 8	2,500 gallons/hr	None	18-A-356
EP-B21-Packaging	B21-Packaging	Building 21 Packaging	500 gallon container	None	18-A-357

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Limits for EPs B21-LO-8 and B21-Packaging

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- (1) Emission limit apply to B21 Process Area. This limit applies to all of the emission units and emission episodes listed in operational limit section of this permit. Only the loadouts exhausted by EP-B21-LO-8 & EP-B21-Packaging are part of the B21 Process Area and subject to this limit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an

orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.H) and the B21 Process Area in emission points EP-B21-LO-1 - EP-B21-LO-8, EP-B21-Packaging (henceforth called Building 21 Loadouts). The owner or operator shall only use B21-LO-8 and EP-B21-Packaging to loadout materials from the B21 Process Area.
- (1) For all materials transferred in the Building 21 Loadouts, the owner or operator shall determine and document:
- a) the loadout used;
 - b) the VOC-containing material transferred;
 - c) the origins of the VOC-containing material (i.e. B21 Process Area, bulk terminal operations, etc.); and
 - d) the amount of VOC-containing material transferred.
- (2) For all materials transferred in the Building 21 Loadouts from the B21 Process Area, the owner or operator shall also determine and document:
- a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the vapor pressure.
- (3) For all materials transferred in the Building 21 Loadouts from the bulk terminal operations, the owner or operator shall also determine and document:
- a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
- (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 21 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NESHAP Requirements

- D. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- E. For each loadout covered under this permit, the owner or operator shall determine and document:
- (1) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject,
 - a) if it is a transfer rack, per the definition in § 63.2550,
 - b) to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - c) the group status as specified §63.2550.
 - (2) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- F. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B21.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Recordkeeping for the Building 21 Process Area VOC Emission Cap

The following monitoring and recordkeeping requirements shall be used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 21 Process Area. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EP-B21PA-Vent1, EP-B21PA- Pack1, EP-B21PA-Pack 2, EP-B21-D, EP-B21-H, EP-B21-LO-8, & EP-B21-Packaging, as well as those from miscellaneous sources related to B21 Process Area production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The VOC emission limit covers the following emission episodes from these emission units for the production (formulation and repackaging) of products made in the Building 21 Process Area:

- Vapor Displacement (Process Tank Material Loading, Bulk Loadout, Vessel/Container Filling/Packaging, Process Tank Cleaning)
- Storage Tanks
- Gas Sweep
- Evaporation from Screens and Open Tanks
- Heating
- Solids Handling
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- G. For each product produced in the Building 21 Process Area, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced (formulated or repackaged) in the Building 21 Process Area.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition G.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Vapor Displacement: Material Loading, Bulk Loadout (Filling), Vessel/Container Filling, Process Tank Cleaning, and Packaging, the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

H. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition G.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

I. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard and nonstandard batches completed for each product produced.

J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- K. If the 12-month rolling total of the VOC emissions exceeds 16.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 16.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 16.0 tons, daily recordkeeping will be required per this Condition of this permit.

Conditions for product loadout for the packaging and bulk terminal operations for Building 21

- L. Packaging and bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 21. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- M. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations transferred in buildings 21, 25, 26 and 27:
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- N. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B21

Loadouts shall be less than 25.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in B21 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 21 Process

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	CE#	Control Equipment Description	Permit #	Stack Testing
EP-B21PA-Vent1	TK332	Building 21 Process Area Tank 332	8,000 gallons	N/A	None	18-A-358	No
	TK333	Building 21 Process Area Tank 333	8,000 gallons				
	TK334	Building 21 Process Area Tank 334	8,000 gallons				
	TK335	Building 21 Process Area Tank 335	8,000 gallons				
	TK336	Building 21 Process Area Tank 336	8,000 gallons				
	TK337	Building 21 Process Area Tank 337	8,000 gallons				
	TK338	Building 21 Process Area Tank 338	8,000 gallons				
	TK339	Building 21 Process Area Tank 339	8,000 gallons				
	TK340	Building 21 Process Area Tank 340	8,000 gallons				
	TK341	Building 21 Process Area Tank 341	8,000 gallons				
	TK342	Building 21 Process Area Tank 342	8,000 gallons				
	TK343	Building 21 Process Area Tank 343	8,000 gallons				
	TK344	Building 21 Process Area Tank 344	8,000 gallons				
	TK345	Building 21 Process Area Tank 345	8,000 gallons				
EP-TK-338-SA	EU-TK-338-SA	Building 21 Process Area Tank 338 Solids Addition Port	1.5 tons/hr	N/A	None	19-A-352	No
EP-TK-345-SA	EU-TK-345-SA	Building 21 Process Area Tank 345 Solids Addition Port	1.5 tons/hr	N/A	None	19-A-353	No
EP-B21PA-Pack 1	EU-B21PA-Pack 1	Building 21 Process Area Packaging 1	20,000 gallons/day	NA	None	18-A-359	No
EP-B21PA-Pack 2	EU-B21PA-Pack 2	Building 21 Process Area Packaging 2	20,000 gallons/day	NA	None	18-A-360	No
EP-B21PA-Pack 3	EU-B21PA-Pack 3	Building 21 Process Area Packaging 3	20,000 gallons/day	NA	None	18-A-361	No

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

The following emission limits shall not be exceeded for EP-B21PA-Vent1:

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permits Listed in Table: Associated Equipment

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.30 lb/hr

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: PM₁₀

Emission Limit(s): 0.64 lb/hr

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.00 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- ⁽²⁾ Emission limit applies to B21 Process Area. This limit applies to all of the emission units and emission episodes listed in operational limits of this permit.

The following emission limits shall not be exceeded for EP-TK-338-SA & EP-TK-345-SA:

Pollutant: Opacity

Emission Limit(s): 40% ⁽³⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permits Listed in Table: Associated Equipment

- ⁽³⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or

operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: PM₁₀

Emission Limit(s): 0.17 lb/hr

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.25 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽⁴⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

(4) Emission limit applies to B21 Process Area. This limit applies to all of the emission units and emission episodes listed in operational limits of this permit.

The following emission limits shall not be exceeded for EP-B21PA- Pack1, EP-B21PA- Pack2, or EP-B21PA- Pack3 each:

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽⁵⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

(5) Emission limit applies to B21 Process Area. This limit applies to all of the emission units and emission episodes listed in operational limits of this permit.

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

A. All process equipment for the Building 21 Processing Area shall be operated and maintained according to manufacturer specifications and maintenance schedule.

- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Building 21 Process Area VOC Emission Cap

The following monitoring and recordkeeping requirements shall be used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 21 Process Area. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points EP-B21PA-Vent1, EP-B21PA- Pack1, EP-B21PA-Pack 2, EP-B21-D, EP-B21-H, EP-B21-LO-8, & EP-B21-Packaging, as well as those from miscellaneous sources related to B21 Process Area production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The VOC emission limit covers the following emission episodes from these emission units for the production (formulation and repackaging) of products made in the Building 21 Process Area:

- Vapor Displacement (Process Tank Material Loading, Bulk Loadout, Vessel/Container Filling/Packaging, Process Tank Cleaning)
- Storage Tanks
- Gas Sweep
- Evaporation from Screens and Open Tanks
- Heating
- Solids Handling
- Ancillary Packaging Emissions - Ink Jet & Stenciling
- Laboratory Emissions
- Tank Cleaning Emissions
- Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 21 Process Area, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.

- (1) The permittee shall identify and document each product produced (formulated or repackaged) in the Building 21 Process Area.
- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Vapor Displacement: Material Loading, Bulk Loadout (Filling), Vessel/Container Filling, Process Tank Cleaning, and Packaging, the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16,

Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard and nonstandard batches completed for each product produced.

G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.

(4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

H. If the 12-month rolling total of the VOC emissions exceeds 16.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit drops below 16.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 16.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- J. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 21 Process Area shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 21 Processing Area and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 21 Process Area) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:

- a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 21 Process Area with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 21 Process Area, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- L. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 21 Process Area, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 21 Process Area, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 21 Process Area shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- N. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- O. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the

Building 21 Process Area.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B21PA-Vent1	12	Downward Discharge	6	74	Displacement
EP-B21PA-Pack1, EP-B21PA- Pack 2, and EP-B21PA-Pack 3	NA	Internally Vented	NA	NA	NA

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B24-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B24-EL

Emission Unit vented through this Emission Point: B24-EL

Emission Unit Description: Building 24 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 18-A-730

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 24 (B24) equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. B37 processing lines, bulk terminal materials).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B24 equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment leak components in the B24 tank farm and the associated loadouts shall have a maximum of 372 light and heavy liquid valves, 10 light and heavy liquid pumps, 1574 light and heavy liquid connectors, and 10 sample connections. The process shall not use any gas valves, compressors, open-ended lines, agitators, or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B24 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall document the number of each type equipment leak component used in B25 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

NESHAP Requirements (B37 Processing Line)

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525. This requirement applies to equipment leaks for tanks used for the B37 processing line.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1020 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed. This requirement applies to equipment leaks for tanks used for the B37 processing line.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 24.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-730

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-730
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 24 Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B24-LO-1	B24-LO-1	Building 24 Loadout 1	300 gallons/min	None	18-A-737
EP-B24-LO-2	B24-LO-2	Building 24 Loadout 2	300 gallons/min	None	18-A-738
EP-B24-LO-3	B24-LO-3	Building 24 Loadout 3	300 gallons/min	None	18-A-739
EP-B24-LO-4	B24-LO-4	Building 24 Loadout 4	300 gallons/min	None	18-A-740
EP-B24-LO-5	B24-LO-5	Building 24 Loadout 5	300 gallons/min	None	18-A-741
EP-B24-LO-6	B24-LO-6	Building 24 Loadout 6	300 gallons/min	None	18-A-742

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only loadout materials from the bulk terminal operations (see

definition in Condition 5.G) and the B37 processing area in emission points EP-B24-LO-1 through EP-B24-LO-6 (henceforth called Building 24 Loadouts).

- (1) For all materials transferred in the Building 24 Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the amount of VOC-containing material transferred;
 - c) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - d) if the material is an organic liquid, as defined in §63.2406
- (2) For all materials transferred in the Building 24 Loadouts from the B37 processing line, the owner or operator shall record and document:
 - e) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - f) the vapor pressure, in kPa.
- (3) For all materials transferred in the Building 24 Loadouts from the bulk terminal operations, the owner or operator shall record and document:
 - g) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - h) if the material is an organic liquid, as defined in §63.2406.
- (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 24 Loadouts.

C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- E. For each loadout covered under this permit, the owner or operator shall determine and document:
 - (1) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject,:
 - i) if it is a transfer rack, per the definition in § 63.2550,
 - j) to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - k) the group status, as defined §63.2550.
 - (2) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- F. The facility shall analyze all changes in the material transferred, process, formulations, or

equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B24.

- (3) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 24

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 24. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- H. The amount of VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B24 Loadouts shall not exceed 20.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in Building 24 (B24):
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B24 Loadouts shall be less than 40.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in B24 Loadouts.

Conditions for product loadout for the B37 processing line

- J. The amount of VOC-containing material from or for the B37 processing line that is loaded out (transferred) in the Building 24 Loadouts shall not exceed 15.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the B37 process that loaded out (transferred) in the Building 24 Loadouts:
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material loaded out (transferred);
 - d) the twelve month total rolling total of VOC-containing material loaded out (transferred).
- K. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the B37 processing line loaded out (transferred) in the B24 Loadouts shall be

less than 40.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the B37 processing line loaded out (transferred) in the B24 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 24 Storage Tank Vents

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B24-Vent1	TK180-TK186	Building 24 Storage Tank 180 through Building 24 Storage Tank 186	27,852 gallons per storage tank	None	18-A-731
EP-B24-Vent2	TK187-TK193	Building 24 Storage Tank 187 through Building 24 Storage Tank 193	27,852 gallons per storage tank	None	18-A-732
EP-B24-Vent3	TK194-TK200	Building 24 Storage Tank 194 through Building 24 Storage Tank 200	27,852 gallons per storage tank	None	18-A-733
EP-B24-Vent4	TK201-TK207	Building 24 Storage Tank 201 through Building 24 Storage Tank 207	27,852 gallons per storage tank	None	18-A-734
EP-B24-Vent5	TK208-TK214	Building 24 Storage Tank 208 through Building 24 Storage Tank 214	27,852 gallons per storage tank	None	18-A-735
EP-B24-Vent6	TK215-TK221	Building 24 Storage Tank 215 through Building 24 Storage Tank 221	27,852 gallons per storage tank	None	18-A-736

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.J) and the B37 processing line in B24 tank farm..
 - (1) For all materials stored in the B24 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material stored;
 - c) the origins of the VOC-containing material (i.e. B37 processing line, bulk terminal operations); and
 - d) the amount of VOC-containing material stored.
 - (2) For all materials stored in the Building 24 Tank Farm from the B37 processing line, the owner or operator shall also determine and document:
 - a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the maximum true vapor pressure, in kPa.
 - (3) For all materials stored in the Building 24 Tank Farm from the bulk terminal operations, the owner or operator shall also determine and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
 - (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B24 storage tanks.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B24 shall be less than 15.0 kPa.

- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B24.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B24.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B24 exceeds 15.0 kPa.
- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. For each storage tank covered under this permit, the owner or operator shall determine and document if the storage tank is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- G. The material stored in the bulk storage tanks in B24 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the maximum true vapor pressure of each material stored and the group status for each storage tanks that is part of a miscellaneous organic chemical process unit in the B24 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- H. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- I. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- J. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers

or railcars and transferred to another process or off site.

- K. The amount of VOC-containing material for the packaging and bulk terminal that is loaded in and loaded out of the tanks in B24 tank farm shall not exceed a throughput of 15.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B24 tank farm:
 - e) The identification and origins of each VOC-containing material;
 - f) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - g) the amount of VOC-containing material stored;
 - h) the twelve month total rolling total of VOC-containing material process stored.
- L. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B24 tank farm shall be less than $40.0 \text{ psia} \cdot \text{lb/lb} \cdot \text{mol}$.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B24 tank farm.

Conditions for storing materials for the B37 processing line

- M. The amount of VOC-containing material from or for the B37 processing line that is loaded in and loaded out of the tanks in B24 tank farm shall not exceed a throughput of 15.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the B37 process that is stored in the tanks in B24 tank farm:
 - a) The identification of each VOC-containing material stored;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material stored.
- N. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the B37 process that is stored in the tanks in B24 tank farm shall be less than $40.0 \text{ psia} \cdot \text{lb/lb} \cdot \text{mol}$.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the B37 process stored in the tanks in B24 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B24-Vent1	11	Downward with Screen over Opening	10	Ambient	Displacement
EP-B24-Vent2	11	Downward with Screen over Opening	10	Ambient	Displacement
EP-B24-Vent3	11	Downward with Screen over Opening	10	Ambient	Displacement
EP-B24-Vent4	11	Downward with Screen over Opening	10	Ambient	Displacement
EP-B24-Vent5	11	Downward with Screen over Opening	10	Ambient	Displacement
EP-B24-Vent6	11	Downward with Screen over Opening	10	Ambient	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 25 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B25-W	TK222	Building 25 Storage Tank 222	27,583 gallons	None	18-A-307-S1
	TK223	Building 25 Storage Tank 223	27,583 gallons	None	
	TK224	Building 25 Storage Tank 224	27,583 gallons	None	
	TK225	Building 25 Storage Tank 225	27,583 gallons	None	
	TK226	Building 25 Storage Tank 226	27,583 gallons	None	
	TK227	Building 25 Storage Tank 227	27,583 gallons	None	
	TK228	Building 25 Storage Tank 228	27,583 gallons	None	
	TK229	Building 25 Storage Tank 229	27,583 gallons	None	
	TK230	Building 25 Storage Tank 230	27,583 gallons	None	
	TK231	Building 25 Storage Tank 231	27,583 gallons	None	
EP- B25-E	TK232	Building 25 Storage Tank 232	27,583 gallons	None	18-A-308-S1
	TK233	Building 25 Storage Tank 233	27,583 gallons	None	
	TK234	Building 25 Storage Tank 234	27,583 gallons	None	
	TK235	Building 25 Storage Tank 235	27,583 gallons	None	
	TK236	Building 25 Storage Tank 236	27,583 gallons	None	
	TK237	Building 25 Storage Tank 237	27,583 gallons	None	
	TK238	Building 25 Storage Tank 238	27,583 gallons	None	
	TK239	Building 25 Storage Tank 239	27,583 gallons	None	
	TK240	Building 25 Storage Tank 240	27,583 gallons	None	
	TK241	Building 25 Storage Tank 241	27,583 gallons	None	

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.G) in the B25 tank farm.
 - (1) For all materials stored in the Building 25 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material stored,
 - c) the amount of VOC-containing material stored.
 - d) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - e) if the material is an organic liquid, as defined in §63.2406.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B25 tank farm.

- C. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.

- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

NSPS and NESHAP Requirements

- E. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B25 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B25.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B25.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B25 exceeds 15.0 kPa.
- F. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- G. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- H. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.
- I. The amount of VOC-containing material for the bulk terminal operations that is stored in the tanks in buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations that are stored in the tanks in buildings 21, 25, 26 and 27:
 - a) The identification of each VOC-containing material stored;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.

J. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations that is stored in the tanks in B25 tank farm shall be less than 25.0 psia · lb/lb · mol.

(1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B25 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B25-E	9.0	Downward	10	74	Displacement
EP-B25-W	10.5	Downward	10	74	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 25 Loadouts and Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B25-LO-1	B25-LO-1	Building 25 Loadout 1	2,500 gallons/hr	None	18-A-309
EP-B25-LO-2	B25-LO-2	Building 25 Loadout 2	2,500 gallons/hr	None	18-A-310
EP-B25-LO-3	B25-LO-3	Building 25 Loadout 3	2,500 gallons/hr	None	18-A-311
EP-B25-LO-4	B25-LO-4	Building 25 Loadout 4	2,500 gallons/hr	None	18-A-312
EP-B25-Packaging	B25-Packaging	Building 25 Packaging	400 gallon container	None	18-A-313

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.F) in emission points EP-B25-LO-1 - EP-B25-LO-4 and EP-B25-Packaging (henceforth called Building 25 Loadouts).
 - (1) For all materials transferred in the Building 25 Loadouts, the owner or operator shall

determine and document:

- a) the loadout used;
- b) the VOC-containing material transferred,
- c) the amount of VOC-containing material transferred.
- d) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
- e) if the material is an organic liquid, as defined in §63.2406.

(2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials transferred in the Building 25 Loadouts.

C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. For each loadout covered under this permit, the owner or operator shall determine and document if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- E. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B25.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 25

- F. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- G. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations transferred in buildings 21, 25, 26 and 27:
- a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- H. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations loaded out (transferred) in the Building 25

Loadouts shall be less than 25.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations transferred in Building 25 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 26 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B26-W	TK242	Building 26 Storage Tank242	29,891 gallons	None	18-A-314-S1
	TK243	Building 26 Storage Tank243	29,891 gallons	None	
	TK244	Building 26 Storage Tank244	29,891 gallons	None	
	TK245	Building 26 Storage Tank245	29,891 gallons	None	
	TK246	Building 26 Storage Tank246	29,891 gallons	None	
	TK247	Building 26 Storage Tank247	29,891 gallons	None	
	TK248	Building 26 Storage Tank248	29,891 gallons	None	
	TK249	Building 26 Storage Tank249	29,891 gallons	None	
	TK250	Building 26 Storage Tank250	29,891 gallons	None	
	TK251	Building 26 Storage Tank251	29,891 gallons	None	
	TK252	Building 26 Storage Tank252	29,891 gallons	None	
	TK253	Building 26 Storage Tank253	29,891 gallons	None	
EP- B26-E	TK254	Building 26 Storage Tank254	27,702 gallons	None	18-A-315-S1
	TK255	Building 26 Storage Tank255	27,702 gallons	None	
	TK256	Building 26 Storage Tank256	27,702 gallons	None	
	TK257	Building 26 Storage Tank257	27,702 gallons	None	
	TK258	Building 26 Storage Tank258	27,702 gallons	None	
	TK259	Building 26 Storage Tank259	27,702 gallons	None	
	TK260	Building 26 Storage Tank260	29,891 gallons	None	
	TK261	Building 26 Storage Tank261	29,891 gallons	None	
	TK262	Building 26 Storage Tank262	29,891 gallons	None	
	TK263	Building 26 Storage Tank263	29,891 gallons	None	
	TK264	Building 26 Storage Tank264	29,891 gallons	None	
	TK265	Building 26 Storage Tank265	29,891 gallons	None	

TK266	Building 26 Storage Tank266	28,106 gallons	None
TK267	Building 26 Storage Tank267	28,106 gallons	None
TK268	Building 26 Storage Tank268	28,106 gallons	None
TK269	Building 26 Storage Tank269	28,106 gallons	None
TK270	Building 26 Storage Tank270	28,106 gallons	None
TK271	Building 26 Storage Tank271	29,891 gallons	None
TK272	Building 26 Storage Tank272	29,891 gallons	None
TK273	Building 26 Storage Tank273	29,891 gallons	None
TK274	Building 26 Storage Tank274	29,891 gallons	None
TK275	Building 26 Storage Tank275	29,891 gallons	None
TK276	Building 26 Storage Tank276	29,891 gallons	None
TK277	Building 26 Storage Tank277	29,891 gallons	None

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any

actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.J) and the EC12 processing line in B26 tank farm. The owner or operator shall only use tanks TK242 and TK243 to store materials from the EC12 processing line.
 - (1) For all materials stored in the B26 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material transferred;
 - c) the origins of the VOC-containing material (i.e. EC12 processing line, bulk terminal operations); and
 - d) the amount of VOC-containing material stored.
 - (2) For all materials stored in the Building 26 Tank Farm from the EC12 processing line, the owner or operator shall also determine and document:
 - a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the maximum true vapor pressure.
 - (3) For all materials stored in the Building 26 Tank Farm from the bulk terminal operations, the owner or operator shall also determine and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
 - (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B26 storage tanks.
- C. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.
- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

NSPS and NESHAP Requirements

- E. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B26 shall be less than 15.0 kPa.
 - (1) The facility shall keep readily accessible records showing the dimensions and

- capacity for the bulk storage tanks in B26.
- (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B26.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B26 exceeds 15.0 kPa.
- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- G. For each storage tank covered under this permit, the owner or operator shall determine and document if the storage tank is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- H. The material stored in the bulk storage tanks in B26 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the maximum true vapor pressure of each material stored and the group status for each storage tanks that is part of a miscellaneous organic chemical process unit in the B26 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- I. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- J. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- K. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. EC12, B21, 4L, South Flowable, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.

- L. The amount of VOC-containing material for the bulk terminal operations that is stored in the tanks in buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations that are stored in the tanks in buildings 21, 25, 26 and 27:
 - e) The identification of each VOC-containing material stored;
 - f) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - g) the amount of VOC-containing material stored;
 - h) the twelve month total rolling total of VOC-containing material process stored.
- M. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations that is stored in the tanks in B26 tank farm shall be less than 25.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B26 tank farm.

Conditions for storing materials for the EC12 processing line

- N. The amount of VOC-containing material from or for the EC12 processing line that is stored in the tanks in B26 tank farm shall not exceed 25.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that is stored in the tanks in B26 tank farm:
 - e) The identification of each VOC-containing material stored;
 - f) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - g) the amount of VOC-containing material stored;
 - h) the twelve month total rolling total of VOC-containing material stored.
- O. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process that is stored in the tanks in B26 tank farm shall be less than 10.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process stored in the tanks in B26 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B26-W	10.5	Downward	10	74	Displacement
EP-B26-E	11	Downward	10	74	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 26 Loadouts and Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B26-LO-1	B26-LO-1	Building 26 Loadout 1	2,500 gallons/hr	None	18-A-316
EP-B26-LO-2	B26-LO-2	Building 26 Loadout 2	2,500 gallons/hr	None	18-A-317
EP-B26-LO-3	B26-LO-3	Building 26 Loadout 3	2,500 gallons/hr	None	18-A-318
EP-B26-LO-4	B26-LO-4	Building 26 Loadout 4	2,500 gallons/hr	None	18-A-319
EP-B26-LO-5	B26-LO-5	Building 26 Loadout 5	2,500 gallons/hr	None	18-A-320
EP-B26-LO-6	B26-LO-6	Building 26 Loadout 6	2,500 gallons/hr	None	18-A-321
EP-B26-LO-7	B26-LO-7	Building 26 Loadout 7	2,500 gallons/hr	None	18-A-404
EP-B26-LO-8	B26-LO-8	Building 26 Loadout 8	2,500 gallons/hr	None	18-A-405
EP-B26-Packaging 1	B26-Packaging 1	Building 26 Packaging 1	400 gallon container	None	18-A-322
EP-B26-Packaging 2	B26-Packaging 2	Building 26 Packaging 2	400 gallon container	None	18-A-323

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.G) and the EC12 processing area in emission points EP-B26-LO-1 - EP-B26-LO-6, EP-B26-Packaging 1, and EP-B26-Packaging 2 (henceforth called Building 26 Loadouts). The owner or operator shall only use EP-B26-Packaging1 and EP-B26-Packaging 2 to loadout materials from the EC12 processing line.
- (1) For all materials transferred in the Building 26 Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the VOC-containing material transferred,
 - c) the origins of the VOC-containing material (i.e. EC12 processing line, bulk terminal operations, etc.); and
 - d) the amount of VOC-containing material transferred.
 - (2) For all materials transferred in the Building 26 Loadouts from the EC12 processing line, the owner or operator shall record and document:
 - a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the vapor pressure.
 - (3) For all materials transferred in the Building 26 Loadouts from the bulk terminal operations, the owner or operator shall record and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
 - (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 26 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NESHAP Requirements

- D. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- E. For each loadout covered under this permit, the owner or operator shall determine and document:
- (1) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject,:
 - c) if it is a transfer rack, per the definition in § 63.2550,

- d) to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - e) the group status, as defined §63.2550.
- (2) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- F. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B26.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 26

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. EC12, B21, 4L, South Flowable, EC44, B37, etc.) for Building 26. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- H. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations transferred in buildings 21, 25, 26 and 27:
- a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations loaded out (transferred) in the Building 26 Loadouts shall be less than 25.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations transferred in Building 26 Loadouts.

Conditions for product loadout for the EC12 processing line

- J. The amount of VOC-containing material from or for the EC12 processing line that is loaded out (transferred) in the Building 26 Loadouts shall not exceed 25.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing

material from or for the EC12 process that loaded out (transferred) in the Building 26 Loadouts:

- a) The identification and origins of each VOC-containing material transferred;
- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
- c) the amount of VOC-containing material loaded out (transferred);
- d) the twelve month total rolling total of VOC-containing material loaded out (transferred).

K. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B26 Loadouts shall be less than 10.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B26 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 27 Loadout Tanks and Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B27-LO-1	B27-LO-1	Building 27 Loadout 1	2,500 gallons/hr	None	18-A-330
EP-B27-LO-2	B27-LO-2	Building 27 Loadout 2	2,500 gallons/hr	None	18-A-331
EP-B27-LO-3	B27-LO-3	Building 27 Loadout 3	2,500 gallons/hr	None	18-A-332
EP-B27-LO-4	B27-LO-4	Building 27 Loadout 4	2,500 gallons/hr	None	18-A-333
EP-B27-LO-5	B27-LO-5	Building 27 Loadout 5	2,500 gallons/hr	None	18-A-334
EP-B27-LO-6	B27-LO-6	Building 27 Loadout 6	2,500 gallons/hr	None	18-A-335
EP-B27-Packaging	B27-Packaging	Building 27 Packaging	400 gallon container	None	18-A-336

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.F) in emission points EP-B27-LO-1 - EP-B27-LO-6 and EP-B27-Packaging (henceforth called Building 27 Loadouts).
- (1) For all materials transferred in the Building 27 Loadouts, the owner or operator shall determine and document:
- i. the loadout used;
 - ii. the VOC-containing material transferred,
 - iii. the amount of VOC-containing material transferred.
 - iv. the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - v. if the material is an organic liquid, as defined in §63.2406.
- (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials transferred in the Building 27 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. For each loadout covered under this permit, the owner or operator shall determine and document if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- E. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B27.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 27

- F. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. EC12, B21, 4L, South Flowable, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- G. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations transferred in buildings 21, 25, 26 and 27:
- a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;

- c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- H. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations loaded out (transferred) in the B27 Loadouts shall be less than 25.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations transferred in B27 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart EEEE National Emission Standards for Hazardous Air Pollutants; Organic Liquids Distribution (Non-gasoline).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart EEEE

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 27 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B27-W(S)	TK278	Building 27 Storage Tank 278	27,162 gallons	None	18-A-324
	TK279	Building 27 Storage Tank 279	27,162 gallons	None	
	TK280	Building 27 Storage Tank 280	27,162 gallons	None	
	TK281	Building 27 Storage Tank 281	27,162 gallons	None	
	TK282	Building 27 Storage Tank 282	27,162 gallons	None	
	TK283	Building 27 Storage Tank 283	27,162 gallons	None	
EP-B27-W(N)	TK284	Building 27 Storage Tank 284	27,162 gallons	None	18-A-325
	TK285	Building 27 Storage Tank 285	27,162 gallons	None	
	TK286	Building 27 Storage Tank 286	27,162 gallons	None	
	TK287	Building 27 Storage Tank 287	27,162 gallons	None	
	TK288	Building 27 Storage Tank 288	27,162 gallons	None	
	TK289	Building 27 Storage Tank 289	27,162 gallons	None	
EP-B27-S	TK290	Building 27 Storage Tank 290	27,162 gallons	None	18-A-326
	TK291	Building 27 Storage Tank 291	27,162 gallons	None	
	TK292	Building 27 Storage Tank 292	27,162 gallons	None	
	TK293	Building 27 Storage Tank 293	27,162 gallons	None	
	TK294	Building 27 Storage Tank 294	27,162 gallons	None	
	TK295	Building 27 Storage Tank 295	27,162 gallons	None	
EP-B27-N	TK296	Building 27 Storage Tank 296	27,162 gallons	None	18-A-327
	TK297	Building 27 Storage Tank 297	27,162 gallons	None	
	TK298	Building 27 Storage Tank 298	27,162 gallons	None	
	TK299	Building 27 Storage Tank 299	27,162 gallons	None	
	TK300	Building 27 Storage Tank 300	27,162 gallons	None	

	TK301	Building 27 Storage Tank 301	27,162 gallons	None	
EP-B27-E(N)	TK302	Building 27 Storage Tank 302	27,583 gallons	None	18-A-328-S1
	TK303	Building 27 Storage Tank 303	27,583 gallons	None	
	TK304	Building 27 Storage Tank 304	27,583 gallons	None	
	TK305	Building 27 Storage Tank 305	27,583 gallons	None	
	TK306	Building 27 Storage Tank 306	27,583 gallons	None	
	TK307	Building 27 Storage Tank 307	27,583 gallons	None	
EP-B27-E(S)	TK308	Building 27 Storage Tank 308	27,162 gallons	None	18-A-329
	TK309	Building 27 Storage Tank 309	27,162 gallons	None	
	TK310	Building 27 Storage Tank 310	27,162 gallons	None	
	TK311	Building 27 Storage Tank 311	27,162 gallons	None	
	TK312	Building 27 Storage Tank 312	27,162 gallons	None	
	TK313	Building 27 Storage Tank 313	27,162 gallons	None	

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.G) in the B27 tank farm.
 - (1) For all materials stored in the Building 27 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material stored,
 - c) the amount of VOC-containing material stored.
 - d) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - e) if the material is an organic liquid, as defined in §63.2406.

 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B27 tank farm.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (2) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

NSPS and NESHAP Requirements

- D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B27 shall be less than 15.0 kPa.
 - (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B27.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B27.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B27 exceeds 15.0 kPa.

- E. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

- F. The facility shall analyze all changes in material stored in any applicable storage tank and

determine if there is a change in applicability for any NSPS or NESHAP subparts.

- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. EC12, B21, 4L, South Flowable, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.

- H. The amount of VOC-containing material for the bulk terminal operations that is stored in the tanks in buildings 21, 25, 26 and 27 shall not exceed 20.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations that are stored in the tanks in buildings 21, 25, 26 and 27:
 - a) The identification of each VOC-containing material stored;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.

- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations that is stored in the tanks in B27 tank farm shall be less than 25.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B27 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart EEEE National Emission Standards for Hazardous Air Pollutants; Organic Liquids Distribution (Non-gasoline).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart EEEE

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B27-W(S)	13.5	Downward	10	74	Displacement
EP-B27-W(N)	13.5	Downward	10	74	Displacement
EP-B27-S	13.0	Downward	10	74	Displacement
EP-B27-N	13.0	Downward	10	74	Displacement
EP-B27-E(N)	13.5	Downward	10	74	Displacement
EP-B27-E(S)	13.5	Downward	10	74	Displacement

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 28 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B28-W	TK350-TK361	Building 28 Storage Tank 350 through Building 28 Storage Tank 361	30,922 gallons	None	19-A-039
EP- B28-E	TK362-TK385	Building 28 Storage Tank 362 through Building 28 Storage Tank 385	30,922 gallons	None	19-A-040

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.J) and the EC12 processing line in B28 tank farm.
 - (1) For all materials stored in the B28 tank farm, the owner or operator shall determine

- and document:
- a) the tank used;
 - b) the VOC-containing material transferred;
 - c) the origins of the VOC-containing material (i.e. EC12 processing line, bulk terminal operations); and
 - d) the amount of VOC-containing material stored.
- (2) For all materials stored in the Building 28 Tank Farm from the EC12 processing line, the owner or operator shall also determine and document:
- a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the maximum true vapor pressure.
- (3) For all materials stored in the Building 28 Tank Farm from the bulk terminal operations, the owner or operator shall also determine and document:
- a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
- (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B28 storage tanks.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B28 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B28.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B28.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B28 exceeds 15.0 kPa.
- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. For each storage tank covered under this permit, the owner or operator shall determine and document if the storage tank is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.

- G. The material stored in the bulk storage tanks in B28 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) The owner or operator shall determine and document the maximum true vapor pressure of each material stored and the group status for each storage tanks that is part of a miscellaneous organic chemical process unit in the B28 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- H. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- I. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- J. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.
- K. The amount of VOC-containing material for the bulk terminal operations that is loaded in and loaded out of the tanks in B28 tank farm shall not exceed a throughput of 5.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B28 tank farm:
- c) The identification and origins of each VOC-containing material;
 - d) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - e) the amount of VOC-containing material stored;
 - f) the twelve month total rolling total of VOC-containing material process stored.
- L. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B28 tank farm shall be less than 25.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B28 tank farm.

Conditions for storing materials for the EC12 processing line

M. The amount of VOC-containing material from or for the EC12 processing line operations that is loaded in and loaded out of the tanks in B28 tank farm shall not exceed a throughput of 5.0 Million Gallons per rolling twelve-month period.

(1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that is stored in the tanks in B28 tank farm:

- a) The identification of each VOC-containing material stored;
- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
- c) the amount of VOC-containing material stored;
- d) the twelve month total rolling total of VOC-containing material stored.

N. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process that is stored in the tanks in B28 tank farm shall be less than 25.0 psia · lb/lb · mol.

(1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process stored in the tanks in B28 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B28-W	13	Horizontal	6	Ambient	Displacement
EP-B28-E	13	Horizontal	6	Ambient	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 28 and 31 Equipment Leaks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B28-EL	Equipment Leaks (EU-B28-EL)	Building 28 (B28) Equipment Leaks	NA	None	18-A-707
EP-B31-EL	Equipment Leaks (EU-B31-EL)	Building 31 (B31) Equipment Leaks	NA	None	18-A-708

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 28 (B28) and Building 31 (B31) equipment leak components, the owner or operator shall record and document the material handled and the origins of the material (i.e. specific processing line, bulk terminal materials, etc.).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B28 and B31 equipment leak components.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall

be initiated promptly upon discovery.

- D. The equipment leak components used in the B28 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 372 light or heavy liquid valves, 15 light or heavy liquid pumps, 1545 light or heavy liquid connectors, and 15 sample connections. The process shall not use, gas valves, compressors, open-ended lines, agitators or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B28 tank farm and the associated loadouts to handle any VOC-containing material for the Bulk Transfer Operations.
- (1) The owner or operator shall document the number of each type equipment leak component used in B28 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.
- E. The equipment leak components used in the B31 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 400 light or heavy liquid, 11 light or heavy liquid pumps, 1338 light or heavy liquid connectors, 11 sample connections. The process shall not use gas valves, compressors, open-ended lines, agitators or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B31 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall document the number of each type equipment leak component used in B31 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

NESHAP Requirements (EC12 Processing Line)

- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515,

§63.2520, and §63.2525. This requirement applies to equipment leaks in Building 28 for tanks used for the EC12 processing line.

- G. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1020 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed. This requirement applies to equipment leaks for tanks used for the EC12 processing line.
- H. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Buildings 28 and 31.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 28 Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B28-LO-1	B28-LO-1	Building 28 Loadout 1	300 gallons/min	None	18-A-720
EP-B28-LO-2	B28-LO-2	Building 28 Loadout 2	300 gallons/min	None	18-A-721
EP-B28-LO-3	B28-LO-3	Building 28 Loadout 3	300 gallons/min	None	18-A-722
EP-B28-LO-4	B28-LO-4	Building 28 Loadout 4	300 gallons/min	None	18-A-723
EP-B28-LO-5	B28-LO-5	Building 28 Loadout 5	300 gallons/min	None	18-A-724
EP-B28-LO-6	B28-LO-6	Building 28 Loadout 6	300 gallons/min	None	18-A-725
EP-B28-LO-7	B28-LO-7	Building 28 Loadout 7	300 gallons/min	None	18-A-726
EP-B28-Hose	B28-Hose	Building 28 Loadout Hose	300 gallons/min	None	18-A-727

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.

(1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment

for this process.

- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.G) and the EC12 processing area in emission points EP-B28-LO-1 through EP-B28-LO-7, and EP-B28-Hose (henceforth called Building 28 Loadouts).
- (1) For all materials transferred in the Building 28 Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the amount of VOC-containing material transferred;
 - c) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - d) if the material is an organic liquid, as defined in §63.2406
 - (2) For all materials transferred in the Building 28 Loadouts from the EC12 processing line, the owner or operator shall record and document:
 - a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the vapor pressure.
 - (3) For all materials transferred in the Building 28 Loadouts from the bulk terminal operations, the owner or operator shall record and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
 - (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 28 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- E. For each loadout covered under this permit, the owner or operator shall determine and document:
- (1) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject,:
 - a) if it is a transfer rack, per the definition in § 63.2550,
 - b) to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - c) the group status, as defined §63.2550.
 - (2) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-

Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

- F. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B28.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 28

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 28. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- H. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the B28 Loadouts shall not exceed 5.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in Building 28 (B28):
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B28 Loadouts shall be less than 25.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in B28 Loadouts.

Conditions for product loadout for the EC12 processing line

- J. The amount of VOC-containing material from or for the EC12 processing line that is loaded out (transferred) in the Building 28 Loadouts shall not exceed 5.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that loaded out (transferred) in the Building 28 Loadouts:
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material loaded out (transferred);

- d) the twelve month total rolling total of VOC-containing material loaded out (transferred).
- K. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B28 Loadouts shall be less than 25.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B28 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"
 40 CFR

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B29-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B29-EL

Emission Unit vented through this Emission Point: B29-EL

Emission Unit Description: Building 29 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time

Authority for Requirement: DNR Construction Permit 18-A-743

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 29 (B29) equipment leak components, the owner or operator shall record and document the material handled and the origins of the material (i.e. EC12 processing lines, bulk terminal materials, etc.).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B29 equipment leak components.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment leak components used in the B29 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 533 light and heavy liquid valves, 18 light and heavy liquid pumps, 2706 light and heavy liquid connectors, and 18 sample connections. The process shall not use any gas valves, compressors, open-ended lines, agitators, or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B29 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall document the number of each type equipment leak component used in B29 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

NESHAP Requirements (EC12 Processing Line)

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525. This requirement applies to equipment leaks for tanks used for the EC12 processing line.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1020 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed. This requirement applies to equipment leaks for tanks used for the EC12 processing line.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 29.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-743

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart EEEE National Emission Standards for Hazardous Air Pollutants; Organic Liquids Distribution (Non-gasoline).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart EEEE

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: HR-B29

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): HR-B29

Emission Unit vented through this Emission Point: HR-B29

Emission Unit Description: Building 29 Haul Roads

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit(s): The owner/operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond lot line of the property.

Authority for Requirement: DNR Construction Permit 19-A-065
567 IAC 23.3(2)"c"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The maximum vehicle weight, including cargo, of the vehicles traveling the haul roads for the Building 29 tank farms and loadouts for Bulk Transfer Operations shall be not exceed the maximum vehicle weight in 23 CFR§658.17(b).
 - (1) The facility shall keep a copy of 23 CFR§658.17(b).
 - (2) If the maximum vehicle weight is increased in 23 CFR§658.17(b) or if 23 CFR§658.17(b) is rescinded, the facility has 30 days to request a modification of this permit.

- B. The vehicle miles traveled by trucks used for Building 29 tank farms and the associated loadouts for Bulk Transfer Operations shall be less than 53,900 per rolling 12-month period. The owner or operator shall determine and record the following for Buildings 29 Bulk Transfer Operations:

- (1) All road segments used and the corresponding lengths in miles, which includes all roads to bring materials in, internal handling, and transporting finished materials out.
- (2) The number of trips taken on each road segment transporting materials in and product out of the facility shall be recorded each day.
- (3) The number of trips taken on the internal road segments shall be calculated using the following method:
 - i. Record the amount of material and volume of the mini bulk, in gallons, used each day.
 - ii. Each month, calculate the number of mini bulks by dividing the volume of product by the volume of the mini bulk used. One mini bulk equals one round trip between internal buildings.
- (4) Each month, calculate the total vehicle miles traveled (VMT) by multiplying the number of trips taken on each road segment by the distance of the corresponding road segment and summing the results.
- (5) Calculate and record the twelve-month rolling total of total VMT in miles, monthly.

C. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- Limiting truck speed on facility property
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

(1) The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.

Authority for Requirement: DNR Construction Permit 19-A-065

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 29 Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B29-LO-1	B29-LO-1	Building 29 Loadout 1	300 gallons/min	None	18-A-744
EP-B29-LO-2	B29-LO-2	Building 29 Loadout 2	300 gallons/min	None	18-A-745
EP-B29-LO-3	B29-LO-3	Building 29 Loadout 3	300 gallons/min	None	18-A-746
EP-B29-LO-4	B29-LO-4	Building 29 Loadout 4	300 gallons/min	None	18-A-747
EP-B29-LO-5	B29-LO-5	Building 29 Loadout 5	300 gallons/min	None	18-A-748
EP-B29-LO-6	B29-LO-6	Building 29 Loadout 6	300 gallons/min	None	18-A-749
EP-B29-LO-7	B29-LO-7	Building 29 Loadout 7	300 gallons/min	None	18-A-750
EP-B29-LO-8	B29-LO-8	Building 29 Loadout 8	300 gallons/min	None	18-A-751
EP-B29-LO-9	B29-LO-9	Building 29 Loadout 9	300 gallons/min	None	18-A-752
EP-B29-LO-10	B29-LO-10	Building 29 Loadout 10	300 gallons/min	None	18-A-753
EP-B29-Hose	B29-Hose	Building 29 Loadout Hose	300 gallons/min	None	18-A-754

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the equipment for this process.
- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.G) and the EC12 processing area in emission points EP-B29-LO-1 through EP-B29-LO-10, and EP-B29-Hose (henceforth called Building 29 Loadouts).
- (1) For all materials transferred in the Building 29 Loadouts, the owner or operator shall record and document:
- the loadout used;
 - the amount of VOC-containing material transferred;
 - the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - if the material is an organic liquid, as defined in §63.2406
- (2) For all materials transferred in the Building 29 Loadouts from the EC12 processing line, the owner or operator shall record and document:
- if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - the vapor pressure in kPa.
- (3) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 29 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- E. For each loadout covered under this permit, the owner or operator shall determine and document:
- (1) if the loadout is subject to 40 CFR Part 63 Subpart FFFF; and, if subject,:
- if it is a transfer rack, per the definition in § 63.2550,
 - to which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in § 63.2435(d).
 - the group status, as defined §63.2550.
- (2) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission

Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

- F. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B29.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 29

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 29. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- H. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the B29 Loadouts shall not exceed 15.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in Building 29 (B29):
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B29 Loadouts shall be less than 40.0 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in B29 Loadouts.

Conditions for product loadout for the EC12 processing line

- J. The amount of VOC-containing material from or for the EC12 processing line that is loaded out (transferred) in the Building 29 Loadouts shall not exceed 15.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that loaded out (transferred) in the Building 29 Loadouts:
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;

- c) the amount of VOC-containing material loaded out (transferred);
- d) the twelve month total rolling total of VOC-containing material loaded out (transferred).

K. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B29 Loadouts shall be less than 40.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the EC12 processing line loaded out (transferred) in the B29 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 29 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B29-Vent1	TK636-TK637	Building 29 Storage Tank 636 though Building 29 Storage Tank 637	37,304 gallons	None	18-A-755
	TK638-TK646	Building 29 Storage Tank 638 though Building 29 Storage Tank 646	37,283 gallons	None	
EP-B29-Vent2	TK647-TK648 and TK651-TK655	Building 29 Storage Tank 647 though Building 29 Storage Tank 648 And Building 29 Storage Tank 651 though Building 29 Storage Tank 655	37,283 gallons	None	18-A-756
	TK649-TK650	Building 29 Storage Tank 649 though Building 29 Storage Tank 650	29,072 gallons	None	
EP-B29-Vent3	TK656-TK665	Building 29 Storage Tank 656 though Building 29 Storage Tank 665	29,072 gallons	None	18-A-757
EP-B29-Vent4	TK666-TK675	Building 29 Storage Tank 666 though Building 29 Storage Tank 675	29,072 gallons	None	18-A-758
EP-B29-Vent5	TK676-TK685	Building 29 Storage Tank 676 though Building 29 Storage Tank 685	29,072 gallons	None	18-A-759

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.J) and the EC12 processing line in B29 tank farm.
 - (1) For all materials stored in the B29 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material stored;
 - c) the origins of the VOC-containing material (i.e. EC12 processing line, bulk terminal operations); and
 - d) the amount of VOC-containing material stored.
 - (2) For all materials stored in the Building 29 Tank Farm from the EC12 processing line, the owner or operator shall also determine and document:
 - a) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - b) the maximum true vapor pressure, in kPa.
 - (3) For all materials stored in the Building 29 Tank Farm from the bulk terminal operations, the owner or operator shall also determine and document:
 - a) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - b) if the material is an organic liquid, as defined in §63.2406.
 - (4) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B29 storage tanks.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B29 shall be less than 15.0 kPa.
 - (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B29.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B29.

- (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B29 exceeds 15.0 kPa.
- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. For each storage tank covered under this permit, the owner or operator shall determine and document if the storage tank is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- G. The material stored in the bulk storage tanks in B29 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the maximum true vapor pressure of each material stored and the group status for each storage tanks that is part of a miscellaneous organic chemical process unit in the B29 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- H. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- I. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- J. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.
- K. The amount of VOC-containing material for the packaging and bulk terminal operations that is loaded in and loaded out of the tanks in B29 tank farm shall not exceed a throughput of 15.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing

material for the packaging and bulk terminal operations that is stored in the tanks in B29 tank farm:

- a) The identification and origins of each VOC-containing material;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.
- L. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B29 tank farm shall be less than 40.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B29 tank farm.

Conditions for storing materials for the EC12 processing line

- M. The amount of VOC-containing material from or for the EC12 processing line that is stored in the tanks in B29 tank farm shall not exceed 15.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material from or for the EC12 process that is stored in the tanks in B29 tank farm:
- a) The identification of each VOC-containing material stored;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material stored.
- N. The product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process that is stored in the tanks in B29 tank farm shall be less than 40.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material from or for the EC12 process stored in the tanks in B29 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B29-Vent1	8	Downward	6	Ambient	Displacement
EP-B29-Vent2	8	Downward	6	Ambient	Displacement
EP-B29-Vent3	8	Downward	6	Ambient	Displacement
EP-B29-Vent4	8	Downward	6	Ambient	Displacement
EP-B29-Vent5	8	Downward	6	Ambient	Displacement

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 31 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B31-E	TK600-TK623	Building 31 Storage Tank 600 through Storage Tank 623	31,929 gallons	None	18-A-709
EP- B31-W	TK624-TK635	Building 31 Storage Tank 624 through Storage Tank 635	31,929 gallons	None	18-A-710

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.G) in the B31 tank farm.
 - (1) For all materials stored in the Building 31 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material stored,
 - c) the amount of VOC-containing material stored.
 - d) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified

in §63.2354; as needed to determine whether the material is an organic liquid; and
e) if the material is an organic liquid, as defined in §63.2406.

(2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B31 storage tanks.

C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B31 shall be less than 15.0 kPa.

(1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B31.

(2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B31.

(3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B31 exceeds 15.0 kPa.

E. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

F. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.

(1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.

H. The amount of VOC-containing material for the bulk terminal operations that is loaded in and loaded out of the tanks in B31 tank farm shall not exceed a throughput of 5.0 Million Gallons per rolling twelve-month period.

(1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B31 tank farm:

a) The identification and origins of each VOC-containing material;

- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B31 tank farm shall be less than 25.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B31 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart EEEE National Emission Standards for Hazardous Air Pollutants; Organic Liquids Distribution (Non-gasoline).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart EEEE

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B31-E	13.5	Horizontal	6	Ambient	Displacement
EP-B31-W	13.5	Horizontal	6	Ambient	Displacement

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 31 Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B31-LO-1	B31-LO-1	Building 31 Loadout 1	300 gallons/min	None	18-A-711
EP-B31-LO-2	B31-LO-2	Building 31 Loadout 2	300 gallons/min	None	18-A-712
EP-B31-LO-3	B31-LO-3	Building 31 Loadout 3	300 gallons/min	None	18-A-713
EP-B31-LO-4	B31-LO-4	Building 31 Loadout 4	300 gallons/min	None	18-A-714
EP-B31-LO-5	B31-LO-5	Building 31 Loadout 5	300 gallons/min	None	18-A-715
EP-B31-LO-6	B31-LO-6	Building 31 Loadout 6	300 gallons/min	None	18-A-716
EP-B31-Hose	B31-Hose	Building 31 Loadout Hose	300 gallons/min	None	18-A-717

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.F) in emission points EP-B31-LO-1 through EP-B31-LO-6 and EP-B31-Hose.
- (1) For all materials transferred in the Building 31 Loadouts, the owner or operator shall record and document:
- a) the loadout used;
 - b) the amount of VOC-containing material transferred;
 - c) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - d) if the material is an organic liquid, as defined in §63.2406
- (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 31 Loadouts.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. For each loadout covered under this permit, the owner or operator shall determine and document if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- E. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B31.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 31

- F. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 31. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.
- G. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the EU-B31-LO-1 through EU-B31-LO-6 and EU-B31-Hose shall not exceed 5.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in Building 31 (B31):
- a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;

- c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.
- H. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in EU-B31-LO-1 through EU-B31-LO-6 and EU-B31-Hose, shall be less than 25.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in emission units EU-B31-LO-1 through EU-B31-LO-6 and EU-B31-Hose.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart EEEE National Emission Standards for Hazardous Air Pollutants; Organic Liquids Distribution (Non-gasoline).

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart EEEE

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 36 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B36TF-Tank 800	EU-B36TF-Tank 800	Building 36 Storage Tank 800	37,625 gallons	None	19-A-524
EP-B36TF-Tank 801	EU-B36TF-Tank 801	Building 36 Storage Tank 801	37,625 gallons	None	19-A-525
EP-B36TF-Tank 802	EU-B36TF-Tank 802	Building 36 Storage Tank 802	37,625 gallons	None	19-A-526
EP-B36TF-Tank 803	EU-B36TF-Tank 803	Building 36 Storage Tank 803	37,625 gallons	None	19-A-527
EP-B36TF-Tank 804	EU-B36TF-Tank 804	Building 36 Storage Tank 804	37,625 gallons	None	19-A-528
EP-B36TF-Tank 805	EU-B36TF-Tank 805	Building 36 Storage Tank 805	37,625 gallons	None	19-A-529
EP-B36TF-Tank 806	EU-B36TF-Tank 806	Building 36 Storage Tank 806	37,625 gallons	None	19-A-530
EP-B36TF-Tank 807	EU-B36TF-Tank 807	Building 36 Storage Tank 807	37,625 gallons	None	19-A-531
EP-B36TF-Tank 808	EU-B36TF-Tank 808	Building 36 Storage Tank 808	37,625 gallons	None	19-A-532
EP-B36TF-Tank 809	EU-B36TF-Tank 809	Building 36 Storage Tank 809	37,625 gallons	None	19-A-533
EP-B36TF-Tank 810	EU-B36TF-Tank 810	Building 36 Storage Tank 810	37,625 gallons	None	19-A-534
EP-B36TF-Tank 811	EU-B36TF-Tank 811	Building 36 Storage Tank 811	37,625 gallons	None	19-A-535
EP-B36TF-Tank 812	EU-B36TF-Tank 812	Building 36 Storage Tank 812	37,625 gallons	None	19-A-536
EP-B36TF-Tank 813	EU-B36TF-Tank 813	Building 36 Storage Tank 813	37,625 gallons	None	19-A-537
EP-B36TF-Tank 814	EU-B36TF-Tank 814	Building 36 Storage Tank 814	37,625 gallons	None	19-A-538
EP-B36TF-Tank 815	EU-B36TF-Tank 815	Building 36 Storage Tank 815	37,625 gallons	None	19-A-539
EP-B36TF-Tank 816	EU-B36TF-Tank 816	Building 36 Storage Tank 816	37,625 gallons	None	19-A-540
EP-B36TF-Tank 817	EU-B36TF-Tank 817	Building 36 Storage Tank 817	37,625 gallons	None	19-A-541
EP-B36TF-Tank 818	EU-B36TF-Tank 818	Building 36 Storage Tank 818	37,625 gallons	None	19-A-542
EP-B36TF-Tank 819	EU-B36TF-Tank 819	Building 36 Storage Tank 819	37,625 gallons	None	19-A-543
EP-B36TF-Tank 820	EU-B36TF-Tank 820	Building 36 Storage Tank 820	37,625 gallons	None	19-A-544
EP-B36TF-Tank 821	EU-B36TF-Tank 821	Building 36 Storage Tank 821	37,625 gallons	None	19-A-545

EP-B36TF-Tank 822	EU-B36TF-Tank 822	Building 36 Storage Tank 822	37,625 gallons	None	19-A-546
EP-B36TF-Tank 823	EU-B36TF-Tank 823	Building 36 Storage Tank 823	37,625 gallons	None	19-A-547
EP-B36TF-Tank 824	EU-B36TF-Tank 824	Building 36 Storage Tank 824	37,625 gallons	None	19-A-548
EP-B36TF-Tank 825	EU-B36TF-Tank 825	Building 36 Storage Tank 825	37,625 gallons	None	19-A-549
EP-B36TF-Tank 826	EU-B36TF-Tank 826	Building 36 Storage Tank 826	37,625 gallons	None	19-A-550

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials from the bulk terminal operations (see definition in Condition 5.H) in B36 tank farm.
 - (1) For all materials stored in the B36 tank farm, the owner or operator shall determine and document:
 - a) the tank used;
 - b) the VOC-containing material transferred; and
 - c) the amount of VOC-containing material stored.
 - d) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of NESHAP Subpart EEEE, as determined using

- procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
- e) if the material is an organic liquid, as defined in §63.2406.
- (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the B36 storage tanks.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

- D. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B36 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B36.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B36.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B36 exceeds 15.0 kPa.
- E. For each tank covered under this permit, the owner or operator shall determine and document if the tank is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.
- F. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of any tank and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for storing materials for bulk terminal operations

- G. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.). These materials are brought to the facility, stored, maintained, and then packaged (containers, drums) or loaded into tankers or railcars and transferred to another process or off site.
- H. The amount of VOC-containing material for the bulk terminal operations that is loaded in and loaded out of the tanks in B36 tank farm shall not exceed a throughput of 12.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B36 tank farm:
 - a) The identification and origins of each VOC-containing material;

- b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material stored.
- I. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations that is stored in the tanks in B36 tank farm shall be less than 60.0 psia · lb/lb · mol.
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B36 tank farm.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B36TF-Tank 800 through EP-B36TF-Tank 826	14	Indoors	2	Ambient	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 36 Loadouts and Packaging

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B36-LO-1	B36-LO-1	Building 36 Loadout 1	400 gpm	None	19-A-551
EP-B36-LO-2	B36-LO-2	Building 36 Loadout 2	400 gpm	None	19-A-552
EP-B36-LO-3	B36-LO-3	Building 36 Loadout 3	400 gpm	None	19-A-553
EP-B36-LO-Pack	B36-LO-Pack	Building 36 Packaging	400 gpm	None	19-A-554

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only loadout materials from the bulk terminal operations (see definition in Condition 5.G) in emission points EP-B36-LO-1 through EP-B36-LO-3, and EP-B36-Hose (henceforth called Building 36 Loadouts).
 - (1) For all materials transferred in the Building 36 Loadouts, the owner or operator shall record and document:

- a) the loadout used;
 - b) the amount of VOC-containing material transferred;
 - c) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - d) if the material is an organic liquid, as defined in §63.2406
 - e) the annual average true vapor pressure and/or the percent by weight of organic HAP listed in Table 1 of subpart EEEE, as determined using procedures specified in §63.2354; as needed to determine whether the material is an organic liquid; and
 - f) if the material is an organic liquid, as defined in §63.2406.
- (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC-containing material transferred in the Building 36 Loadouts.

C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

NSPS and NESHAP Requirements

D. For each loadout covered under this permit, the owner or operator shall determine and document:

- (1) if the loadout is subject to 40 CFR Part 63 Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). If subject, the owner or operator shall meet all applicable requirements of Subpart EEEE.

E. The facility shall analyze all changes in the material transferred, process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B36.

- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Conditions for product loadout for the bulk terminal operations for Building 36

F. Bulk terminal operations shall include receiving, storing, maintaining, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B21, 4L, South Flowable, EC12, EC44, B37, etc.) for Building 36. These materials are brought to the facility, stored, maintained, and then packaged in containers or drums or loaded into tankers or railcars and transferred to another process or off site.

G. The amount of VOC-containing material for the bulk terminal operations loaded out (transferred) in the B36 Loadouts shall not exceed 12.0 Million Gallons per rolling twelve-month period.

- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in Building 36 (B36):
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;

- d) the twelve month total rolling total of VOC-containing material transferred.
- H. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B36 Loadouts shall be less than 60 psia · lb/lb · mol.
 - (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in B36 Loadouts.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B36-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B36-EL

Emission Unit vented through this Emission Point: B36-EL

Emission Unit Description: Building 36 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 19-A-555

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 36 (B36) equipment leak components, the owner or operator shall record and document the material handled and the origins of the material (i.e. specific processing line, bulk terminal materials, etc.).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B36 equipment leak components.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

D. The equipment leak components used in the B36 tank farm and the associated loadouts used for Bulk Transfer Operations shall have a maximum of 98 heavy liquid valves, 7 heavy liquid pumps, 495 heavy liquid connectors, and 4 sample connections. The process shall not use light liquid valves, gas valves, compressors, open-ended lines, agitators or pressure relief valves that are in VOC service. This shall include all of the equipment leak components used in the B36 tank farm and the associated loadouts to handle any VOC-containing material for the Bulk Transfer Operations.

- (1) The owner or operator shall document the number of each type equipment leak component used in B36 tank farm and the associated loadouts used for Bulk Transfer Operations. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

Authority for Requirement: DNR Construction Permit 19-A-555

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 37 Process Equipment

Associated Equipment

Emission Unit Description (EU ID)	Maximum Rated Capacity
B 37 Tank 882 (EU37-TK882)	706 gallons
B 37 Tank 890 (EU37-TK890)	6,124 gallons
B 37 Tank 890 – solids addition (EU37 TK-890-BBU)	5,000 lb/hr
B 37 Tank 890 – solids addition (EU37 TK-890-BBS)	5,000 lb/hr
B 37 Tank 891 (EU37-TK891)	8,000 gallons
B 37 Tank 891 – solids addition (EU37 TK-891-BBU)	5,000 lb/hr
B 37 Tank 891 – solids addition (EU37 TK-891-BBS)	5,000 lb/hr
B 37 Tank 892 (EU37- TK892)	6,124 gallons
B 37 Tank 892 – solids addition (EU37 TK-892-BBU)	5,000 lb/hr
B 37 Tank 892 – solids addition (EU37 TK-892-BBS)	5,000 lb/hr
B 37 Tank 893 (EU37- TK893)	8,000 gallons
B 37 Tank 893 – solids addition (EU37 TK-893-BBU)	5,000 lb/hr
B 37 Tank 893 – solids addition (EU37 TK-893-BBS)	5,000 lb/hr
B 37 Tank 953 (EU37- TK953)	6,124 gallons
B 37 Tank 953 – solids addition (EU37 TK-953-BBU)	5,000 lb/hr
B 37 Tank 953 – solids addition (EU37 TK-953-BBS)	5,000 lb/hr
B 37 Tank 954 (EU37- TK954)	6,124 gallons
B 37 Tank 954 – solids addition (EU37 TK-954-BBU)	5,000 lb/hr
B 37 Tank 954 – solids addition (EU37 TK-954-BBS)	5,000 lb/hr

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 02-A-726-S2

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.26 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 02-A-726-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 17 tons/yr
Authority for Requirement: DNR Construction Permit 02-A-726-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. The facility shall only use the bulk bag unloader stations and bag break stations to add solid materials to the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports are closed. The facility shall document the results of the inspection.

- B. For all VOC containing materials used in Building 37 Processing Plant, the owner or operator shall record and document the materials used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, in the Building 37 Processing Plant.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Control Equipment Requirements

- D. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.

- E. The owner or operator shall operate the control equipment at all times when emissions are vented to them.

- F. The differential pressure drop across the Final Baghouse (CE 37-1000) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.

- (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (CE 37-1000), in inches of water, on a daily basis. If the pressure drop across the Final Baghouse (CE 37-1000) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- G. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in

the equations listed below in Condition G.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (1) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (2) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- H. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition G.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- I. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

K. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

L. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

M. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is

- considered to be a nonstandard batch.
- d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- N. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- O. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- P. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- Q. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- R. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1

requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

- S. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 02-A-726-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 02-A-726-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50

Stack Opening, (inches, dia.): 12

Exhaust Flow Rate (scfm): 3,000

Exhaust Temperature (°F): 120

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-726-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 37 Processing Tanks

Associated Equipment

Emission Unit Description (EU ID)	Control Equipment	Maximum Rated Capacity
B 37 Tank 870 (EU37- TK870)	None	8,124 gallons
B 37 Tank 871 (EU37- TK871)	None	8,124 gallons
B 37 Tank 874 (EU37- TK874)	None	7,506 gallons
B 37 Tank 875 (EU37- TK875)	None	7,506 gallons
B 37 Tank 876 (EU37- TK876)	None	7,506 gallons
B 37 Tank 877 (EU37- TK877)	None	7,506 gallons
B 37 Tank 878 (EU37- TK878)	None	8,124 gallons
B 37 Tank 879 (EU37- TK879)	None	8,124 gallons
B 37 Tank 880 (EU37- TK880)	None	8,506 gallons
B 37 Tank 881 (EU37- TK881)	None	7,506 gallons
B 37 Tank 883 (EU37- TK883)	None	1,092 gallons
B 37 Tank 884 (EU37- TK884)	None	3,068 gallons
B 37 Tank 885 (EU37- TK885)	None	3,068 gallons
B 37 Tank 886 (EU37- TK886)	None	4,196 gallons
B 37 Tank 887 (EU37- TK887)	None	2,660 gallons
B 37 Tank 888 (EU37- TK888)	None	4,196 gallons
B 37 Tank 889 (EU37- TK889)	None	2,660 gallons
B 37 Tank 895 (EU37- TK895)	None	7,506 gallons
B 37 Tank 896 (EU37- TK896)	None	7,506 gallons
B 37 Tank 947 (EU37- TK947)	None	8,036 gallons
B 37 Tank 948 (EU37- TK948)	None	8,036 gallons
B 37 Tank 949 (EU37- TK949)	None	8,036 gallons
B 37 Tank 950 (EU37- TK950)	None	8,036 gallons
B 37 Tank 951 (EU37- TK951)	None	8,036 gallons
B 37 Tank 952 (EU37- TK952)	None	8,036 gallons
B 37 Tank 955 (EU37- TK955)	None	271 gallons
B 37 Tank 956 (EU37- TK956)	None	4,196 gallons
B 37 Tank 957 (EU37- TK957)	None	2,637 gallons

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-727-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports are closed. The facility shall document the results of the inspection.

- C. For all VOC containing materials used in Building 37 Processing Plant, the owner or operator shall record and document the materials used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, in the Building 37 Processing Plant.

- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- E. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition DE.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.

- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition ED.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- K. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- L. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- M. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- N. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- O. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- Q. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 02-A-727-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 02-A-727-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 11.5
- Stack Opening, (inches, dia.): 3
- Exhaust Flow Rate (scfm): Displacement
- Exhaust Temperature (°F): 70
- Discharge Style: Downward
- Authority for Requirement: DNR Construction Permit 02-A-727-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B37-3

Associated Equipment

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID	Raw Material
EU37-TK872	B 37 Tank 872	8,000 Gallons	None	Herbicide
EU37-TK873	B 37 Tank 873	8,000 Gallons	None	Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-728-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials used in Building 37 Processing Plant, the owner or operator shall record and document the materials used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, in the Building 37 Processing Plant.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37

Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct

emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (8) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission

limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- I. The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B37.

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- K. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

- L. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and

- document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- M. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- N. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- O. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- Q. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.
- (1) The facility shall document all process changes and the results of all NSPS or

NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 02-A-728-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 02-A-728-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 13
Stack Opening, (inches, dia.): 3
Exhaust Flow Rate (scfm): Displacement
Exhaust Temperature (°F): 70
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 02-A-728-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 37-4

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 37-4

Emission Unit vented through this Emission Point: 37-4

Emission Unit Description: Building 37 Tank Farm (EU37-TK827 - EU37- TK868)

Raw Material/Fuel: Herbicide

Rated Capacity: 37,625 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-729-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials for the Building 37 Processing Plant processing lines in the Building 37 (B37) tank farm.
 - (1) For all materials stored in the tanks in the Building 37 (B37) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. B37 processing line).
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B37 tank farm.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall

be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be

based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.

- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- I. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B37 shall be less than 15.0 kPa.
 - (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B37.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B37.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B37 exceeds 15.0 kPa.

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- K. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs §

- 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- L. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- M. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- N. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- O. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.

(1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

Q. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 02-A-729-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 02-A-729-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 13

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 70

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 02-A-729-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within

thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 37 Process Line

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP37-BoxA	EU37-BoxA	B37 Box Tank for System A Screen	34 gallons	None	18-A-018
EP37-ScreenA	EU37-ScreenA	B37 Vibratory Screener System A	8 gallons/min	None	18-A-019
EP37-BoxC	EU37-BoxC	B37 Box Tank for System C Screen	37.5 gallons	None	18-A-020
EP37-ScreenC	EU37-ScreenC	B37 Vibratory Screener System C	8 gallons/min	None	18-A-021
EP37-Pack	EU37-Pack	B37 Packaging	55 gallons	None	18-A-022
EP-TK882-LA	EU-TK882-LA	B37 Tank 882 Tank Liquid Addition	8 gallons/min	None	19-A-340
EP-TK890-LA	EU-TK890-LA	B37 Tank 890 Tank Liquid Addition	8 gallons/min	None	19-A-341
EP-TK891-LA	EU-TK891-LA	B37 Tank 891 Tank Liquid Addition	8 gallons/min	None	19-A-342
EP-TK892-LA	EU-TK892-LA	B37 Tank 892 Tank Liquid Addition	8 gallons/min	None	19-A-343
EP-TK893-LA	EU-TK893-LA	B37 Tank 893 Tank Liquid Addition	8 gallons/min	None	19-A-344
EP-TK953-LA	EU-TK953-LA	B37 Tank 953 Tank Liquid Addition	8 gallons/min	None	19-A-345
EP-TK954-LA	EU-TK954-LA	B37 Tank 954 Tank Liquid Addition	8 gallons/min	None	19-A-346

EP-TK883-LA	EU-TK883-LA	B37 Tank 883 Tank Liquid Addition	8 gallons/min	None	19-A-347
EP- TK884- SA	EU- TK884-SA	B37 Tank 884 Tank Solids Addition	1,000 lbs/hr	Dry Filters, CE-TK884	19-A-348
EP-TK884-LA	EU-TK884-LA	B37 Tank 884 Tank Liquid Addition	8 gallons/min	None	19-A-349
EP-TK885-LA	EU-TK885-LA	B37 Tank 885 Tank Liquid Addition	8 gallons/min	None	19-A-350
EP37-DH	EU37-DH	B37 Drum Heating	7,300,000 gallons/yr	None	19-A-351
EP37-LO-1	EU37-LO-1	B37 Loadout 1	7,300,000 gallons/yr	None	18-A-023
EP37-LO-2	EU37-LO-2	B37 Loadout 2	7,300,000 gallons/yr	None	18-A-024
EP37-LO-3	EU37-LO-3	B37 Loadout 3	7,300,000 gallons/yr	None	18-A-025
EP37-LO-4	EU37-LO-4	B37 Loadout 4	7,300,000 gallons/yr	None	18-A-026
EP37-LO-5	EU37-LO-5	B37 Loadout 5	7,300,000 gallons/yr	None	18-A-027
EP37-LO-6	EU37-LO-6	B37 Loadout 6	7,300,000 gallons/yr	None	18-A-028

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Combined Limits

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Limits Per Emission Point

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permits Listed in Table: Associated Equipment

⁽¹⁾ An exceedance of the indicator opacity of "no visible emission (No VE)" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or

equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.10 lb/hr

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: PM₁₀

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.35 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

A. All control and process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.

(1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.

B. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.

(1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.

C. For all VOC containing materials used in Building 37 Processing Plant, the owner or operator shall record and document the materials used.

(1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials

processed, used, or generated, in the Building 37 Processing Plant.

D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

(1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)

Storage Tanks

Gas Sweep

Solids Handling

Evaporation from Screens and Open Tanks

Heating

Ancillary Packaging Emissions - Ink Jet & Stenciling

Laboratory Emissions

Tank Cleaning Emissions

Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

E. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.

(1) The permittee shall identify and document each product produced.

(2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.

(3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition E.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.

- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.

F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition ED.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.

G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.

H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

I. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.

- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- J. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- K. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

- L. Any continuous process vents that are part of the miscellaneous organic chemical process

unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

(1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.

(2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).

M. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.

(1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

N. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.

(1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.

O. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.

(1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

Q. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B37-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B37-EL

Emission Unit vented through this Emission Point: B37-EL

Emission Unit Description: Building 37 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 18-A-005

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 37 (B37) equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. B37 processing lines).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B39 equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment used in Building 37 shall have a maximum of 885 heavy liquid valves, 69 heavy liquid pumps, 5816 connectors, and 27 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, open-ended lines, compressors, agitators, or pressure relief valves. This shall include all of the equipment used in Building 37 to handle any VOC-containing material.
- (1) The owner or operator shall count and document the number and types of components used in Building 37. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall update the component count whenever the number of components change.

NSPS and NESHAP Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 37.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-005

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-005
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 37-HR

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 37-HR

Emission Unit vented through this Emission Point: 37-HR

Emission Unit Description: Building 37 Haul Roads

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 18-A-017
567 IAC 23.3(2)"c"

Pollutant: PM₁₀

Emission Limit(s): 5 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-017

Pollutant: PM_{2.5}

Emission Limit(s): 1 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-017

Pollutant: Particulate Matter

Emission Limit(s): 18 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-017

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an

orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall document each haul road route used for Building 37 Processing Plant along with the length of each route.
- B. The owner or operator shall record each time a truck uses a route for the Building 37 Processing Plant.
- C. The owner or operator shall record on a monthly basis:
 - (1) The number of trips taken on each haul road route.
 - (2) The total vehicle miles (VMT) travelled for all trucks used for the Building 37 Processing Plant. This shall be accomplished by multiplying the number of trips taken on each haul road route by the distance of the corresponding route and summing the results.
 - (3) The maximum average truck weight of vehicles used for the Building 37 Processing Plant (the maximum average truck weight is the average of a full and empty truck for the heaviest truck used for the Building 37 Processing Plant).
- D. The owner/operator shall calculate and record the monthly PM, PM-10, and PM-2.5 emissions for Area 46 truck traffic according to the formulas and procedures from AP-42 Section 13.2.1 using the data documented above and the surface silt-loading (sL) limit as specified in the Facility-wide Haul Road Traffic permit for the road surface silt loading. The owner or operator shall update monthly the twelve-month rolling total of PM, PM-10, and PM-2.5 emissions by adding up the calculated monthly emissions for the previous twelve months.
- E. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- Limiting truck speed on facility property
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

- (1) The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.

Authority for Requirement: DNR Construction Permit 18-A-017

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 37-TK882BBS

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 37-TK882BBS

Emissions Control Equipment ID Number: CE37-TK882

Emissions Control Equipment Description: Baghouse

Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: 37-TK882BBS

Emission Unit Description: Building 37 Tank 882 Batching Station

Raw Material/Fuel: Herbicide

Rated Capacity: 1,000 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 18-A-001

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.05 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 18-A-001

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-001

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment for the Building 37 Processing Plant shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The permittee shall employ good housekeeping practices for the Building 37 Processing Plant. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.

- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.

(4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- J. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the

- information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- L. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- M. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- N. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525,

and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

- O. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- P. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-001

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-001
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Indoors
Stack Opening, (inches, dia.): Vents Indoors
Exhaust Flow Rate (scfm): 650
Exhaust Temperature (°F): 70
Discharge Style: Vents Indoors
Authority for Requirement: DNR Construction Permit 18-A-001

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 37-TK883BBS

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 37-TK883BBS
Emissions Control Equipment ID Number: CE37-TK883
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: 37-TK883BBS
Emission Unit Description: Building 37 Tank 883 Batching Station
Raw Material/Fuel: Herbicide
Rated Capacity: 1,000 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 18-A-002

- ⁽²⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.05 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 18-A-002

Pollutant: Volatile Organic Compounds

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-002

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment for the Building 37 Processing Plant shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The permittee shall employ good housekeeping practices for the Building 37 Processing Plant. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.

- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.

(4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

J. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the

- information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- L. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- M. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- N. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525,

and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

- O. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- P. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-002

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-002
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Indoors
Stack Opening, (inches, dia.): Vents Indoors
Exhaust Flow Rate (scfm): 650
Exhaust Temperature (°F): 70
Discharge Style: Vents Indoors
Authority for Requirement: DNR Construction Permit 18-A-002

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 37-TK995BBS

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 37-TK995BBS

Emissions Control Equipment ID Number: CE37-TK995

Emissions Control Equipment Description: Baghouse

Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: 37-TK995BBS

Emission Unit Description: Building 37 Tank 995 Batching Station

Raw Material/Fuel: Herbicide

Rated Capacity: 1,000 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 18-A-003

- ⁽³⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.05 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 18-A-003

Pollutant: Volatile Organic Compounds

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-003

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment for the Building 37 Processing Plant shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The permittee shall employ good housekeeping practices for the Building 37 Processing Plant. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.

- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.

(4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

NSPS and NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- J. All batch process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 37 Processing Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the

- information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 37 Processing Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- L. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- M. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- N. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 37 Processing Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525,

and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

- O. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- P. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 37 Processing Plant.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-003

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-003
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Indoors

Stack Opening, (inches, dia.): Vents Indoors

Exhaust Flow Rate (scfm): 650

Exhaust Temperature (°F): 70

Discharge Style: Vents Indoors

Authority for Requirement: DNR Construction Permit 18-A-003

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 39 Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP39-LO-1	EU39-LO-1	B39 Loadout 1	18,000 gallons/hr	None	18-A-009
EP39-LO-2	EU39-LO-2	B39 Loadout 2	18,000 gallons/hr	None	18-A-010
EP39-LO-3	EU39-LO-3	B39 Loadout 3	18,000 gallons/hr	None	18-A-011
EP39-LO-4	EU39-LO-4	B39 Loadout 4	18,000 gallons/hr	None	18-A-012
EP39-LO-5	EU39-LO-5	B39 Loadout 5	18,000 gallons/hr	None	18-A-013
EP39-LO-6	EU39-LO-6	B39 Loadout 6	18,000 gallons/hr	None	18-A-014
EP39-LO-7	EU39-LO-7	B39 Loadout 7	18,000 gallons/hr	None	18-A-015
EP39-LO-8	EU39-LO-8	B39 Loadout 8	18,000 gallons/hr	None	18-A-016

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.

(1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store and loadout materials for Building 37 Processing Plant and from packaging and bulk terminal operations in the tanks in the Building 39 (B39) tank farm.
 - (1) For all materials stored in the tanks in the Building 39 (B39) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. B37 processing lines, packaging and bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B39 tank farm.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)

Storage Tanks

Gas Sweep

Solids Handling

Evaporation from Screens and Open Tanks

Heating

Ancillary Packaging Emissions - Ink Jet & Stenciling

Laboratory Emissions

Tank Cleaning Emissions

Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.

- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as

described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

Conditions for product loadout for the packaging and bulk terminal operations

- I. Packaging and bulk terminal operations shall include receiving, storing, processing, and loading activities involving materials that are not produced in a specific processing line at the plant (i.e. B37, etc.). These materials are brought to the facility, stored, processed, and then packaged in containers or drums or loaded into tankers or railcars and transferred off site.

- J. The amount of VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B39 Product Tanker Loadouts (EP-B39-LO-1-8) shall not exceed 175.0 Million Gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for all VOC-containing material for the packaging and bulk terminal operations transferred in emission units EP-B39-LO-1-8:
 - a) The identification and origins of each VOC-containing material transferred;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the twelve month total rolling total of VOC-containing material transferred.

- K. The maximum total HAP content of any material loaded out (transferred) in the B39 Product Tanker Loadout (EP-B39-LO-1-8) for bulk terminal operations shall be 80.0%, by weight. The maximum individual HAP content of any material loaded out (transferred) in the B39 tank farm for bulk terminal operations shall be 30.0%, by weight.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials loaded out (transferred) in the B39 Product Tanker Loadout (EP-B39-LO-1-8) for bulk terminal operations.

- L. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations loaded out (transferred) in the B39 Product Tanker Loadout (EP-B39-LO-1-8) and the shall be less than 10.0 psia · lb/lb · mol.

- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations transferred in emission units EU- B39-LO-1-8.

NSPS and NESHAP Requirements

- M. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- N. The owner or operator shall determine and document which transfer racks covered under this permit are subject to 40 CFR Part 63 Subpart FFFF, and, if subject, which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in §63.2435 (d), if applicable.
- O. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a miscellaneous organic chemical process unit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- Q. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B39.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B39-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B39-EL

Emission Unit vented through this Emission Point: B39-EL

Emission Unit Description: Building 39 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 18-A-006

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in the Building 39 (B39) equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. B37 processing lines, bulk terminal materials).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the B39 equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- D. The equipment used in the B39 tank farm and the associated loadouts shall have a maximum of 425 heavy liquid valves, 9 heavy liquid pumps, 8 sample connections and 2506 heavy liquid connectors. The process shall not use any light liquid components, gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in the B39 tank farm and the associated loadouts to handle any VOC-containing material.
- (1) The owner or operator shall count and document the number and types of components used in Building 39. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.

NSPS and NESHAP Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 39.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-006

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-006
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B39-TF-

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): TK917 – TK946

Emission Unit vented through this Emission Point: TK917 – TK946

Emission Unit Description: Building 39 Tank Farm East

Raw Material/Fuel: Herbicide

Rated Capacity: 33,372 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-007

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials for Building 37 (B37) and from packaging and bulk terminal operations in the tanks in the Building 39 (B39) tank farm.
 - (1) For all materials stored in the tanks in the Building 39 (B39) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. B37 processing lines, packaging and bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B39 tank farm.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission

testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (1) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (2) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

Conditions for storing materials for the bulk terminal operations

- I. Bulk terminal operations shall include receiving, storing, and loading activities involving materials not produced in a specific processing line at the plant (i.e. B37). These materials are brought to the facility, stored, and then packaged (containers, drums) or loaded into tankers or railcars and transferred off site.
- J. The amount of VOC-containing material for the bulk terminal operations stored in all of the tanks in B39 tank farm shall not exceed 175.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations stored in the tanks in B39 tank farm:
- The identification and origins of each VOC-containing material;
 - a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - the amount of VOC-containing material stored;
 - the twelve month total rolling total of VOC-containing material process stored.
- K. The maximum total HAP content of any material stored in the B39 tank farm for bulk terminal operations shall be 80.0%, by weight. The maximum individual HAP content of any material stored in the B39 tank farm for bulk terminal operations shall be 30.0%, by weight.
- (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials stored in the B39 tank farm for bulk terminal operations.
- L. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B39 tank farm shall be less than $10.0 \text{ psia} \cdot \frac{\text{lb}}{\text{lb} \cdot \text{mol}}$
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B39 tank farm.

NSPS and NESHAP Requirements

- M. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B39 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B39.
- (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B39.
- (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B39 exceeds 15.0 kPa.
- N. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- O. The owner or operator shall determine and document which storage tanks covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- P. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of a miscellaneous organic chemical process unit, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- Q. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- R. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the storage tanks in B39.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-007

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-007
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 11.5

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 70

Discharge Style: Downard

Authority for Requirement: DNR Construction Permit 18-A-007

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B39-TF-W

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): TK907 – TK916

Emission Unit vented through this Emission Point: TK917 – TK946

Emission Unit Description: Building 39 Tank Farm West

Raw Material/Fuel: Herbicide

Rated Capacity: 33,372 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr

Authority for Requirement: DNR Construction Permit 18-A-008

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The owner or operator shall only store materials for Building 37 (B37) and from packaging and bulk terminal operations in the tanks in the Building 39 (B39) tank farm.
 - (1) For all materials stored in the tanks in the Building 39 (B39) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. B37 processing lines, packaging and bulk terminal operations) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B39 tank farm.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in the emission limit section of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- D. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition D.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee

according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition D.3 above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC

emissions will cease per this section of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this section of this permit.

Conditions for storing materials for the bulk terminal operations

- I. Bulk terminal operations shall include receiving, storing, and loading activities involving materials not produced in a specific processing line at the plant (i.e. B37). These materials are brought to the facility, stored, and then packaged (containers, drums) or loaded into tankers or railcars and transferred off site.
- J. The amount of VOC-containing material for the bulk terminal operations stored in all of the tanks in B39 tank farm shall not exceed 175.0 Million Gallons per rolling twelve-month period.
- (1) The permittee shall maintain the following monthly records for all VOC-containing material for the bulk terminal operations stored in the tanks in B39 tank farm:
- a) The identification and origins of each VOC-containing material;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material stored;
 - c) the amount of VOC-containing material stored;
 - d) the twelve month total rolling total of VOC-containing material process stored.
- K. The maximum total HAP content of any material stored in the B39 tank farm for bulk terminal operations shall be 80.0%, by weight. The maximum individual HAP content of any material stored in the B39 tank farm for bulk terminal operations shall be 30.0%, by weight.
- (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials stored in the B39 tank farm for bulk terminal operations.
- L. The product of the true vapor pressure and the molecular weight of each VOC-containing material for the bulk terminal operations stored in the tanks in B39 tank farm shall be less than $10.0 \text{ psia} \cdot \frac{\text{lb}}{\text{lb} \cdot \text{mol}}$
- (1) The facility shall document the product of the true vapor pressure and the molecular weight of each VOC-containing material for the packaging and bulk terminal operations stored in the tanks in B39 tank farm.

NSPS and NESHAP Requirements

- M. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks in B39 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks in B39.
- (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks in B39.
- (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks in B39 exceeds 15.0 kPa.

- N. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- O. The owner or operator shall determine and document which storage tanks covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- P. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of a miscellaneous organic chemical process unit, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- Q. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- R. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the storage tanks in B39.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 18-A-008

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 18-A-008
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 5

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 70

Discharge Style: Downard

Authority for Requirement: DNR Construction Permit 18-A-007

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 40 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-TK-958	TK-958	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	14-A-526-S3
EP-TK-959	TK-959	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-288-S1
EP-TK-960	TK-960	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-289-S1
EP- TK-961	TK-961	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-290-S1
EP- TK-962	TK-962	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-291-S1
EP-TK-963	TK-963	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-292-S1
EP-TK-964	TK-964	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-293-S1
EP-TK-965	TK-965	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-294-S1
EP-TK-966	TK-966	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-295-S1
EP-TK-967	TK-967	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-296-S1
EP-TK-968	TK-968	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-297-S1
EP-TK-969	TK-969	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-298-S1
EP-TK-970	TK-970	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-299-S1
EP-TK-971	TK-971	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-300-S1
EP-TK-972	TK-972	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-301-S1
EP-TK-973	TK-973	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-302-S1

EP-TK-974	TK-974	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-303-S1
EP-TK-975	TK-975	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-304-S1
EP-TK-976	TK-976	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-305-S1
EP-TK-977	TK-977	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-306-S1
EP-TK-978	TK-978	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-307-S1
EP-TK-979	TK-979	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-308-S1
EP-TK-980	TK-980	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-309-S1
EP-TK-981	TK-981	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-310-S1
EP-TK-982	TK-982	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-311-S1
	TK-983	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-984	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-985	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-986	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-987	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-988	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-989	Building 40 Storage Tank	30,000 gallons 200 gallons/minute	None	

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 0.80 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 10 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

- (1) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.
- (2) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (3) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Storage Tanks
- Gas Sweep
- Solids Handling
- Evaporation from Screens and Open Tanks
- Heating
- Drum Heating
- Laboratory Emissions
- Tank Cleaning Emissions
- Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- D. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition DG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16,

Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.

- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition DG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.

- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., 10.4 the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in Condition 1 of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- I. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.

- (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- J. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in Condition 1 of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

- K. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.
- L. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- M. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- N. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks TK-958 - TK-989 shall be less than 15.0 kPa.
 - (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks TK-958 - TK-989.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks TK-958 - TK-989.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks TK-958 - TK-989 exceeds 15.0 kPa.
- O. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- P. The owner or operator shall determine and document which storage tank covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.
- Q. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall determine and document the group status for the storage tanks covered under this permit that are part of any miscellaneous organic chemical process unit, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- R. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.

- (1) The facility shall document all changes in the contents of the tanks or process or formulations changes to any tank that is part of a MCPU and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-TK-958-EP-TK-981	14	Downward	3	70	Displacement
EP-TK-982	12	Downward	6	70	Displacement

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 40 Product Loadouts

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B40-LO-1	B40-LO-1	Building 40 Truck Loadout 1	400 gallons/min	None	14-A-527-S3
EP- B40-LO-2	B40-LO-2	Building 40 Truck Loadout 2	400 gallons/min	None	19-A-312-S1
EP- B40-LO-3	B40-LO-3	Building 40 Truck Loadout 3	400 gallons/min	None	19-A-313-S1
EP- B40-LO-4	B40-LO-4	Building 40 Truck Loadout 4	400 gallons/min	None	19-A-314-S1
EP- B40-LO-5	B40-LO-5	Building 40 Truck Loadout 5	400 gallons/min	None	19-A-315-S1
EP- B40-LO-6	B40-LO-6	Building 40 Truck Loadout 6	400 gallons/min	None	19-A-316-S1
EP- B40-LO-7	B40-LO-7	Building 40 Truck Loadout 7	400 gallons/min	None	19-A-317-S1
EP- B40-LO-8	B40-LO-8	Building 40 Truck Loadout 8	400 gallons/min	None	19-A-318-S1
EP- B40-LO-9	B40-LO-9	Building 40 Rail Loadout	400 gallons/min	None	19-A-319-S1

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 0.80 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 10 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽¹⁾ Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP

B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

- (2) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (3) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials from the Area 46 in emission points EP-B40-LO-1 - EP-B40-LO-9 (henceforth called B40 Product Loadouts).
 - (1) For all materials transferred in the B40 Product Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the VOC/HAP-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - e) the vapor pressure.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC/HAP-containing material transferred in the B40 Product Loadouts.
- C. The owner or operator shall only use clean trucks and railcars, or trucks and railcars that are dedicated to transporting materials from building B40 in the B40 Product Loadouts.

(1) The facility shall maintain verification that the trucks and railcars that are used for the B40 Product Loadouts operation are clean or are dedicated to transporting materials from building B40.

D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

(1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in Condition 1 of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation

Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- E. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition EG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).

- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition EG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.

(2) The daily number of standard or nonstandard batches completed for each product produced.

H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limits section of this permit:

(1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.

(2) The total amount of VOC emissions for each product produced, in tons.

(3) The total amount of VOC emissions for all products produced, in tons.

(4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.

I. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

(1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.

(2) The total amount of VOC emissions for each product produced, in tons.

(3) The total amount of VOC emissions for all products produced, in tons.

(4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:

(1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.

(2) The total amount of Single HAP emissions for each product produced, in tons.

(3) The total amount of Single HAP emissions for all products produced, in tons.

(4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.

K. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
- (2) The total amount of Single HAP emissions for each product produced, in tons.
- (3) The total amount of Single HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in Condition 1 of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

L. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

M. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

N. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- O. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- P. The owner or operator shall determine and document which transfer racks covered under this permit are subject to 40 CFR Part 63 Subpart FFFF, and, if subject, which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in §63.2435 (d), if applicable.
- Q. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that this transfer rack is subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- R. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the B40 Product Loadouts.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B42-1

Associated Equipment

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID
EU 4203-U-03	Bulk Bag Unloader	12,000 lbs/hr	Bin Vent Baghouse (CE 4203-U-01)
TK-4203	Premix Tank	20,000 gallons, 6,600 gallons/hr	HEPA/Carbon filter (CE 4203-U-02)

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 14-A-528-S3

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.03 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 14-A-528-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permit 14-A-528-S3

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 0.80 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 14-A-528-S3

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 10 tons/yr⁽⁴⁾

Authority for Requirement: DNR Construction Permit 14-A-528-S3

- ⁽²⁾ Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The

cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

- (3) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (4) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The permittee (or owner or operator) shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the equipment covered under this permit.
- B. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Control Equipment Requirements

- C. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- D. The differential pressure drop across dry filters shall be maintained between 1.0 and 3.0 inches water column except during periods of filter replacement.

- (1) The owner or operator shall collect and record the pressure drop across all of the control equipment, in inches of water, on a daily basis. If the pressure drop across the dry filters falls outside the range specified in above, the owner or operator shall investigate the filters and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- E. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition EG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating

Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition EG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.

- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- K. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.

- (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

L. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

M. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

N. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- O. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, 63.2515, 63.2520, and 63.2525.
- P. All batch process vents that are part of the miscellaneous organic chemical process unit for the Area 46 process shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Area 46 process, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Area 46 process) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- (a) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
- (b) A record of whether each batch operated was considered a standard batch.
- (c) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
- (d) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- Q. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- R. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Area 46 process.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required in this permit.

Authority for Requirement: DNR Construction Permit 14-A-528-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-528-S3
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 55
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 400
Exhaust Temperature (°F): 70
Discharge Style: Unobstructed Vertical
Authority for Requirement: DNR Construction Permit 14-A-528-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B42-3

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): B42-3

Emission Unit vented through this Emission Point: B42-3

Emission Unit Description: Building 42 Product Packaging

Raw Material/Fuel: Herbicide

Rated Capacity: 100 gal/min (Packaging); 100 gal/min (Totes)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permit 14-A-530-S3

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 0.80 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permit 14-A-530-S3

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 10 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 14-A-530-S3

- (1) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.
- (2) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (3) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-

1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

A. All process equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.

(1) The permittee (or owner or operator) shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the equipment covered under this permit.

B. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

(1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in Condition 1 of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)

Storage Tanks

Gas Sweep

Solids Handling

Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- C. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition CG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air

Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- D. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition CG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- E. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- F. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- G. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- I. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

- J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.
- K. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.

- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- L. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- M. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, 63.2515, 63.2520, and 63.2525.

- N. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Area 46 process.

- (1) The facility shall document the results of any NSPS or NESHAP determinations as required in this permit.

Authority for Requirement: DNR Construction Permit 14-A-530-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-530-S3
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 55

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 400

Exhaust Temperature (°F): 70

Discharge Style: Unobstructed Vertical

Authority for Requirement: DNR Construction Permit 14-A-530-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 42 Product Truck Loadouts

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B42-LO-1	B42-LO-1	Building 42 Truck Loadout 1	400 gallons/min	None	14-A-531-S4
EP- B42-LO-2	B42-LO-2	Building 42 Truck Loadout 2	400 gallons/min	None	19-A-334-S1
EP- B42-LO-3	B42-LO-3	Building 42 Truck Loadout 3	400 gallons/min	None	19-A-335-S1
EP- B42-LO-4	B42-LO-4	Building 42 Truck Loadout 4	400 gallons/min	None	20-A-206
EP- B42-LO-5	B42-LO-5	Building 42 Truck Loadout 5	400 gallons/min	None	20-A-207

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Single Hazardous Air Pollutant (HAP)

Emission Limit(s): 0.80 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Total Hazardous Air Pollutant (HAP)

Emission Limit(s): 10 tons/yr⁽⁴⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

⁽¹⁾ Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

- (2) Emission limits apply to B37 Processing Plant. This limit applies to all of the emission episodes for B37 Processing Plant listed in operating requirements section of this permit.
- (3) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (4) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials from the Building 37 and Area 46 processing lines in emission points EP-42-LO-1 - EP-B42-LO-3 (henceforth called B42 Product Loadouts).
 - (1) For all materials transferred in the B42 Product Loadouts, the owner or operator shall record and document:
 - a) the loadout used;
 - b) the VOC/HAP-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) the origins of the material (i.e. Building 37 and Area 46 processing lines);
 - e) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - f) the vapor pressure.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC/HAP-containing material transferred in the B42 Product Loadouts.

- C. The owner or operator shall only use clean trucks and railcars, or trucks and railcars that are dedicated to transporting materials from building 42 in the B42 Product Loadout (EU B42-4).
 - (1) The facility shall maintain verification that the trucks and railcars that are used for the B42 Product Loadout (EU B42-4) operation are clean or are dedicated to transporting materials from building B42.

- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Storage Tanks
- Gas Sweep
- Solids Handling
- Evaporation from Screens and Open Tanks
- Heating
- Drum Heating
- Laboratory Emissions
- Tank Cleaning Emissions
- Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Storage Tanks

Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- E. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition EG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of

Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).

- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition EG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:

- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- K. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in

the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
- (2) The total amount of Single HAP emissions for each product produced, in tons.
- (3) The total amount of Single HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

L. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

M. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- N. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- O. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition 5.OM.(5) The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall

be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- P. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition 5.OM.(3) above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- Q. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- R. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in Condition 1 of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- S. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in

the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- T. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- U. The owner or operator shall determine and document which transfer racks covered under this permit are subject to 40 CFR Part 63 Subpart FFFF, and, if subject, which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in §63.2435 (d), if applicable.

- V. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that this transfer rack is subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.
 - (1) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.

- W. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the loadouts in B42.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B45 Bulk Bag Unloaders and Reactors

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Bulk Bag Unloader (4501-U-01)	Whirl Wet Dust Collector (4501-U2-02)	10 tph
Bulk Bag Unloader (4502-U-01)	Whirl Wet Dust Collector (4502-U2-02)	10 tph
Bulk Bag Unloader (4503-U-01)	Whirl Wet Dust Collector (4503-U2-02)	10 tph
Reactor 1 (TK-4501)	Whirl Wet Dust Collector (4501-U2-02)	6,500 gallons, 1,500 gph
Reactor 2 (TK-4502)	Whirl Wet Dust Collector (4502-U2-02)	6,500 gallons, 1,500 gph
Reactor 3 (TK-4503)	Whirl Wet Dust Collector (4503-U2-02)	6,500 gallons, 1,500 gph
DMA Tank (TK-4506)	None ⁽¹⁾	60,000 gallons

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 14-A-532-S3

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.17 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 14-A-532-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 1.50 lb/hr⁽²⁾; 13 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 14-A-532-S3

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 1.50 lb/hr⁽²⁾; 0.80 tons/yr⁽⁴⁾

Authority for Requirement: DNR Construction Permit 14-A-532-S3

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 1.50 lb/hr⁽²⁾; 10 tons/yr⁽⁵⁾

Authority for Requirement: DNR Construction Permit 14-A-532-S3

- (2) This emission limit applies only to this emission point, EP B45-1.
- (3) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.
- (4) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (5) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Control Equipment Requirements

- D. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- E. The differential pressure drop across the dust collectors (4501-U2-02, 4502-U2-02, & 4503-U2-02) shall be maintained between 7.0 and 9.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across dust collectors (4501-U2-02, 4502-U2-02, & 4503-U2-02), in inches of water, on a daily basis. If the pressure drop across the dry filters falls outside the range specified in Condition 14.C, the owner or operator shall investigate the filters and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.
- F. The differential pressure drop across the scrubber (T-4508) shall be maintained between 0.95 and 3.09 inches water column.
 - (1) Daily, the owner or operator shall monitor and document the pressure drop across the scrubber (T-4508). If the pressure drop falls outside the range specified in Condition 14.D the owner or operator shall investigate the scrubber and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.
- G. The pH of the scrubber (T-4508) absorbing liquid shall be maintained between 4.0 and 6.0.
 - (1) The facility shall monitor and document the pH of the absorbing liquid for the scrubber (T-4508) daily. If the pH falls outside the range specified in Condition 14.E the owner or operator shall investigate the scrubber and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.
- H. The DMA emissions created during the filling of the DMA tank shall be vented back to tanker/railcar during deliveries.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in Condition 1 of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- I. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures,

vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition IG.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- J. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition IG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- K. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- L. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- M. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

N. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
- (2) The total amount of Single HAP emissions for each product produced, in tons.
- (3) The total amount of Single HAP emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.

O. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
- (2) The total amount of Single HAP emissions for each product produced, in tons.
- (3) The total amount of Single HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

P. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

Q. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

R. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

S. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

T. All batch process vents that are part of the miscellaneous organic chemical process unit for the Area 46 Process Area shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify all process vents that are part of the miscellaneous organic chemical process unit for the Area 46 Processing Area and document the type (continuous or batch) and group status for each vent, according to 40 CFR Part 63 Subpart FFFF, 63.2550.

- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 21 Process Area) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- U. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- V. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Area 46 Process Area.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 14-A-532-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-532-S3
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 55
- Stack Opening, (inches, dia.): 14
- Exhaust Flow Rate (scfm): 1,100
- Exhaust Temperature (°F): 78
- Discharge Style: Unobstructed Vertical
- Authority for Requirement: DNR Construction Permit 14-A-532-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B45-2

Associated Equipment

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID
TK-4504 - 4505	2 Bulk Storage Tanks	30,000 gallons, 100 gpm	None
TK-4508	Scrubber Effluent Tank	3,100 gallons, 500 gpm	None

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-533-S4

Pollutant: Single Hazardous Air Pollutant (HAP)

Emission Limit(s): 0.80 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-533-S4

Pollutant: Total Hazardous Air Pollutant (HAP)

Emission Limit(s): 10 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-533-S4

- (1) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.
- (2) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (3) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-

1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The permittee (or owner or operator) shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the equipment covered under this permit.

- B. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

- C. Quarterly, the owner or operator shall collect a representative sample of scrubber effluent. The owner or operator shall analyze and determine the constituent concentration and record the results. The facility shall document the methods used to make this determination. The results shall be used to verify the emissions estimates made for the Scrubber Effluent Tank TK-4508. After two years sampling, the facility may request the Department to reevaluate the sampling frequency requirements.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in Condition 1 of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- D. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition DG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.

- (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition DG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- I. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.

- J. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

- K. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

- L. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- M. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- N. The facility shall keep readily accessible records showing the dimensions and capacity for the storage tanks TK-4504 - TK-4505.
- O. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks TK-4504 - TK-4505 shall be less than 15.0 kPa.
- (1) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the storage tanks TK-4504 - TK-4505.
 - (2) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the storage tanks TK-4504 - TK-4505 exceeds 15.0 kPa.
- P. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, 63.2515, 63.2520, and 63.2525.

Q. The material stored in the storage tanks TK-4504 - TK-4505 shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that these storage tanks are subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.

(1) The owner or operator shall determine and document the group status for the storage tanks TK-4504 - TK-4505, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.

R. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Area 46.

(1) The facility shall document the results of any NSPS or NESHAP determinations as required in this permit.

Authority for Requirement: DNR Construction Permit 14-A-533-S4

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-533-S4
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Working/Breathing Loss

Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 14-A-533-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B46-1

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): TK-4601 - TK-4606

Emission Unit vented through this Emission Point: TK-4601 - TK-4606

Emission Unit Description: Building 46 Tank Farm: 6 Storage Tanks

Raw Material/Fuel: Herbicide

Rated Capacity: 500,000 Gallons; 200 gpm

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permit 14-A-534-S4

Pollutant: Single Hazardous Air Pollutant (HAP)

Emission Limit(s): 0.80 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permit 14-A-534-S4

Pollutant: Total Hazardous Air Pollutant (HAP)

Emission Limit(s): 10 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 14-A-534-S4

- (1) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.
- (2) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.
- (3) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-

1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The permittee (or owner or operator) shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the equipment covered under this permit.

- B. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- D. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition DG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.

- (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- E. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition DG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- I. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.

- J. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

- K. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

- L. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- M. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- N. The facility shall keep readily accessible records showing the dimensions and capacity for the storage tanks TK-4601 - TK-4606.
- O. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks TK-4601 - TK-4606 shall be less than 15.0 kPa.
- (1) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the storage tanks TK-4601 - TK-4606.
 - (2) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the storage tanks TK-4601 - TK-4606 exceeds 15.0 kPa.
- P. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, 63.2515, 63.2520, and 63.2525.

Q. The material stored in the storage tanks TK-4601 - TK-4606 shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that these storage tanks are subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.

(1) The owner or operator shall determine and document the group status for the storage tanks TK-4601 - TK-4606, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.

R. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Area 46.

(1) The facility shall document the results of any NSPS or NESHAP determinations as required in this permit.

Authority for Requirement: DNR Construction Permit 14-A-534-S4

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-534-S4
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Working/Breathing Losses

Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 14-A-534-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 46 Product Loadout

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-B46-LO-1	B46-LO-1	Building 46 Truck Loadout 1	400 gallons/min	None	14-A-535-S3
EP- B46-LO-2	B46-LO-2	Building 46 Truck Loadout 2	400 gallons/min	None	19-A-336-S1
EP- B46-LO-3	B46-LO-3	Building 46 Truck Loadout 3	400 gallons/min	None	19-A-337-S1
EP- B46-LO-4	B46-LO-4	Building 46 Truck Loadout 4	400 gallons/min	None	19-A-338-S1
EP- B46-LO-5	B46-LO-5	Building 46 Rail Loadout 1	400 gallons/min	None	19-A-339-S1

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 14 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Single Hazardous Air Pollutant (HAP)

Emission Limit(s): 0.80 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Pollutant: Total Hazardous Air Pollutant (HAP)

Emission Limit(s): 10 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

(1) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

(2) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-

1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

- (3) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only loadout materials from the Area 46 in emission points EP-B46-LO-1 - EP-B46-LO-5 (henceforth called B46 Product Loadouts).
- (1) For all materials transferred in the B46 Product Loadouts, the owner or operator shall record and document:
- a) the loadout used;
 - b) the VOC/HAP-containing material transferred;
 - c) the amount of VOC-containing material transferred;
 - d) if the material is produced in an MCPU for NESHAP Subpart FFFF; and
 - e) the vapor pressure.
- (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC/HAP-containing material transferred in the B46 Product Loadouts.
- C. The owner or operator shall only use clean trucks and railcars, or trucks and railcars that are dedicated to transporting materials from building B46 in the B46 Product Loadout (EU B46-2).
- (1) The facility shall maintain verification that the trucks and railcars that are used for the B46 Product Loadout (EU B46-2) operation are clean or are dedicated to transporting materials from building B46.

- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- E. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition EG.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating

Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition EG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.

- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- K. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.

- (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

- L. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.

- M. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
- (2) The total amount of Total HAP emissions for each product produced, in tons.
- (3) The total amount of Total HAP emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- N. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

NSPS and NESHAP Requirements

- O. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- P. The owner or operator shall determine and document which transfer racks covered under this permit are subject to 40 CFR Part 63 Subpart FFFF, and, if subject, which miscellaneous organic chemical process unit (MCPU) the transfer rack is assigned, using the procedures in §63.2435 (d), if applicable.
- Q. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550. If the facility determines that this transfer rack is subject to the Group 1 requirements in the subpart, the facility shall modify the permit within 30 days to include the requirements of the subpart.
- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of a miscellaneous organic chemical process unit for the transfer racks covered under this permit, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- R. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the B46 Product Loadouts.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DCL

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
BBS Aqueous Tank (EU DCL-1000)	Cartridge Filter (CE DCL 1200) and HEPA Filter (CE DCL-1220)	1,000 lbs/hr
BBS Oil Tank (EU DCL-1010)	Cartridge Filter (CE DCL 1200) and HEPA Filter (CE DCL-1220)	1,000 lbs/hr
BBS Shar Tank (EU DCL-1020)	Cartridge Filter (CE DCL 1200) and HEPA Filter (CE DCL-1220)	1,000 lbs/hr
BBS Formulator Tank (EU DCL-1030)	Cartridge Filter (CE DCL 1200) and HEPA Filter (CE DCL-1220)	1,000 lbs/hr
Bulk Bag Unloader (EU DCL-1050)	Cartridge Filter (CE DCL 1200) and HEPA Filter (CE DCL-1220)	2,500 lbs/hr

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 17-A-008-S2

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.28 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-008-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.28 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 17-A-008-S2

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 28 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-008-S2

Pollutant: Single Hazardous Air Pollutant
Emission Limit(s): 9 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-008-S2

Pollutant: Total Hazardous Air Pollutants
Emission Limit(s): 23 tons/yr
Authority for Requirement: DNR Construction Permit 17-A-008-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For each product produced in the Development Center for Liquids Plant, the owner or operator shall identify and document each VOC and HAP containing material processed, used, or generated.
- C. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, used in the Development Center for Liquids Plant.
- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Control Equipment Requirements

- E. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- F. The differential pressure drop across the Cartridge Filter (CE DCL-1200) shall be maintained between 0.5 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across the *Cartridge Filter (CE DCL-1200)*, in inches of water, on a continuous basis. This requirement shall not apply on the days that the filter is not in operation. If the pressure drop across any of the *Cartridge Filter* falls outside the range specified above, the owner or operator shall investigate the *Cartridge Filter* and make the necessary corrections. The permittee shall maintain a record any corrective action

taken for which data show a deviation from the specified pressure drop range above, including the date and time of the deviations, the date and time corrective action was initiated and completed, and the corrective action taken.

VOC and HAP Recordkeeping for Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The emission limits caps cover the following emission episodes from the emission units covered by the permits for emission points EP-DCL, EP-DCL-CV, and EP-DCL-1210 for the production of products made in the Development Center for Liquids Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating

The VOC and HAP emission limits also covers emissions from any Drum Heating performed for products made in the Development Center for Liquids Plant.

- G. For each product produced in the emission units covered by the permits for emission points EP-DCL, EP-DCL-CV, and EP-DCL-1210, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product and standard and nonstandard batch.
 - (2) The permittee shall identify and record each emission episode (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each batch.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition G.43. The facility shall document and provide a justification for the value of each input used.
 - (4) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa

DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide a justification for the emission factors or emission estimation methods for each emission episode.

- (1) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF and provide justification for each emission episodes that is not regulated by the subpart.

- (2) The facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate per batch for each batch for each product by summing the emission rate per batch of each emission episode.
- H. The permittee shall record each batch completed as a standard or nonstandard batch.
 - a. The permittee shall use the operating scenarios required in GA.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- I. The permittee shall maintain the following daily records for the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in Condition 1 of this permit:
 - (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches for each product.
- J. The permittee shall maintain the following monthly records for the for the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product, in tons.
 - (2) The total amount of VOC emissions for each product, in tons.
 - (3) The total amount of VOC emissions for all products, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products, in tons.
 - (5) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product, in tons.
 - (6) The total amount of Single HAP emissions for each product, in tons.
 - (7) The total amount of Single HAP emissions for all products, in tons.
 - (8) The 12-month rolling total of the amount of Single HAP emissions from all products, in tons.
 - (9) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product, in tons.
 - (10) The total amount of Total HAP emissions for each product, in tons.
 - (11) The total amount of Total HAP emissions for all products, in tons.
 - (12) The 12-month rolling total of the amount of Total HAP emissions from all products, in tons.

The Single HAP emissions is the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions is the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

- K. If the 12-month rolling total of the VOC emissions exceeds 20.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product, in tons.

- (2) The total amount of VOC emissions for each product, in tons.
- (3) The total amount of VOC emissions for all products, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 20.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 20.0 tons, daily recordkeeping will be required per this Condition of this permit.

- L. If the 12-month rolling total of any Single HAP emitted from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF exceeds 7.0 tons, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product, in tons.
 - (2) The total amount of Single HAP emissions for each product, in tons.
 - (3) The total amount of Single HAP emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products, in tons.

Daily calculations of each single HAP emissions shall continue until the 365-day rolling total of the amount of all each single HAP emissions from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF drops below 7.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of each single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 7.0 tons, daily recordkeeping will be required per this Condition of this permit.

- M. If the 12-month rolling total of total HAP emissions from all emission units/episodes covered by the Total HAP ton per year emission limit caps in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF exceeds 18.0 tons, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product, in tons.
 - (2) The total amount of Total HAP emissions for each product, in tons.
 - (3) The total amount of Total HAP emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products, in tons.

Daily calculations of total HAP emissions shall continue until the 365-day rolling total of the amount of total HAP emissions from all emission units/episodes covered by the Total HAP ton per year emission limit caps in the emission limit section of this permit which are regulated by 40 CFR

Part 63 Subpart FFFF drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- N. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- O. All batch process vents associated with the Development Center for Liquids Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Development Center for Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (Development Center for Liquids Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

- P. Any continuous process vents associated with the Development Center for Liquids Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Development Center for Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the Development Center for Liquids Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- Q. Any wastewater streams associated with Development Center for Liquids Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- a. The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- R. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- S. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Development Center for Liquids Plant.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 17-A-008-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-008-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 36

Stack Opening, (inches, dia.): 14

Exhaust Flow Rate (scfm): 3,250

Exhaust Temperature (°F): 120

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 17-A-008-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DCL-1210

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): DCL-1040

Emissions Control Equipment ID Number: CE-DCL-1210

Emissions Control Equipment Description: Baghouse

Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: DCL-1040

Emission Unit Description: Portable Vacuum Transfer for Development Center for Liquids Plant

Raw Material/Fuel: Herbicide

Rated Capacity: 2,500 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 17-A-009-S1

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.10 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-009-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.10 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 17-A-009-S1

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 28 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-009-S1

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 9 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-009-S1

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 23 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-009-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For each product produced in the Development Center for Liquids Plant, the owner or operator shall identify and document each VOC and HAP containing material processed, used, or generated.
- C. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, used in the Development Center for Liquids Plant.
- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Control Equipment Requirements

- E. The owner or operator shall operate the control equipment at all times when emissions are vented to them.

VOC and HAP Recordkeeping for Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limit section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The emission limits caps cover the following emission episodes from the emission units covered by the permits for emission points EP-DCL, EP-DCL-CV, and EP-DCL-1210 for the production of products made in the Development Center for Liquids Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating

The VOC and HAP emission limits also covers emissions from any Drum Heating performed for products made in the Development Center for Liquids Plant.

- F. For each product produced in the emission units covered by the permits for emission points EP-DCL, EP-DCL-CV, and EP-DCL-1210, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
- (1) The permittee shall identify and document each product and standard and nonstandard batch.
 - (2) The permittee shall identify and record each emission episode (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each batch.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition F.4. The facility shall document and provide a justification for the value of each input used.
 - (4) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).

- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide a justification for the emission factors or emission estimation methods for each emission episode.

- (5) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF and provide justification for each emission episodes that is not regulated by the subpart.
- (6) The facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate per batch for each batch for each product by summing the emission rate per batch of each emission episode.
- G. The permittee shall record each batch completed as a standard or nonstandard batch.
 - a. The permittee shall use the operating scenarios required in FA.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- H. The permittee shall maintain the following daily records for the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
 - (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches for each product.

- I. The permittee shall maintain the following monthly records for the for the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product, in tons.
 - (2) The total amount of VOC emissions for each product, in tons.
 - (3) The total amount of VOC emissions for all products, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products, in tons.

 - (5) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product, in tons.
 - (6) The total amount of Single HAP emissions for each product, in tons.
 - (7) The total amount of Single HAP emissions for all products, in tons.
 - (8) The 12-month rolling total of the amount of Single HAP emissions from all products, in tons.
 - (9) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product, in tons.
 - (10) The total amount of Total HAP emissions for each product, in tons.
 - (11) The total amount of Total HAP emissions for all products, in tons.
 - (12) The 12-month rolling total of the amount of Total HAP emissions from all products, in tons.

The Single HAP emissions is the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions is the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

- J. If the 12-month rolling total of the VOC emissions exceeds 20.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product, in tons.
 - (2) The total amount of VOC emissions for each product, in tons.
 - (3) The total amount of VOC emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 20.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 20.0 tons, daily recordkeeping will be required per this Condition of this permit.

- K. If the 12-month rolling total of any Single HAP emitted from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF exceeds 7.0 tons, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product, in tons.
 - (2) The total amount of Single HAP emissions for each product, in tons.
 - (3) The total amount of Single HAP emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products, in tons.

Daily calculations of each single HAP emissions shall continue until the 365-day rolling total of the amount of all each single HAP emissions from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF drops below 7.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of each single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 7.0 tons, daily recordkeeping will be required per this Condition of this permit.

- L. If the 12-month rolling total of total HAP emissions from all emission units/episodes covered by the Total HAP ton per year emission limit caps in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF exceeds 18.0 tons, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product, in tons.
 - (2) The total amount of Total HAP emissions for each product, in tons.
 - (3) The total amount of Total HAP emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products, in tons.

Daily calculations of total HAP emissions shall continue until the 365-day rolling total of the amount of total HAP emissions from all emission units/episodes covered by the Total HAP ton per year emission limit caps in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- M. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

N. All batch process vents associated with the Development Center for Liquids Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Development Center for Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (Development Center for Liquids Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

O. Any continuous process vents associated with the Development Center for Liquids Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Development Center for Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2455 (b), for each continuous process vent in the Development Center for Liquids Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).

- (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- P. Any wastewater streams associated with Development Center for Liquids Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- Q. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- R. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Development Center for Liquids Plant.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 17-A-009-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-009-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): Vents Indoors
- Stack Opening, (inches, dia.): Vents Indoors
- Exhaust Flow Rate (scfm): Vents Indoors
- Exhaust Temperature (°F): Vents Indoors
- Discharge Style: Vents Indoors
- Authority for Requirement: DNR Construction Permit 17-A-009-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DCL-CV

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
T3258-Aqueous Tank (EU DCL- T3258)	None	1,000 gallons
T3259-Oil Tank (EU DCL- T3259)	None	1,000 gallons
T3260-Formulator Tank (EU DCL- T3260)	None	1,000 gallons
T3261-Pack Tank (EU DCL- T3261)	None	1,000 gallons
T3262-Shar Tank (EU DCL- T3262)	None	500 gallons

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 28 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-007-S1

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 9 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-007-S1

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 23 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-007-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.

- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For each product produced in the Development Center for Liquids Plant, the owner or operator shall identify and document each VOC and HAP containing material processed, used, or generated.
- C. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated in the Development Center for Liquids Plant.
- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

VOC and HAP Recordkeeping for Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in Condition 1 of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The emission limits caps cover the following emission episodes from the emission units covered by the permits for emission points EP-DCL, EP-DCL-CV, and EP-DCL-1210 for the production of products made in the Development Center for Liquids Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating

The VOC and HAP emission limits also covers emissions from any Drum Heating performed for products made in the Development Center for Liquids Plant.

- E. For each product produced in the emission units covered by the permits for emission points EP-DCL, EP-DCL-CV, and EP-DCL-1210, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product and standard and nonstandard batch.
 - (2) The permittee shall identify and record each emission episode (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each batch.

- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition E.43. The facility shall document and provide a justification for the value of each input used.
- (4) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide a justification for the emission factors or emission estimation methods for each emission episode.

- (5) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF and provide justification for each emission episodes that is not regulated by the subpart.
 - (6) The facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate per batch for each batch for each product by summing the emission rate per batch of each emission episode.
- F. The permittee shall record each batch completed as a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in EA.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches for each product.
- H. The permittee shall maintain the following monthly records for the for the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product, in tons.
 - (2) The total amount of VOC emissions for each product, in tons.
 - (3) The total amount of VOC emissions for all products, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products, in tons.
- (5) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product, in tons.
 - (6) The total amount of Single HAP emissions for each product, in tons.
 - (7) The total amount of Single HAP emissions for all products, in tons.

- (8) The 12-month rolling total of the amount of Single HAP emissions from all products, in tons.
- (9) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product, in tons.
- (10) The total amount of Total HAP emissions for each product, in tons.
- (11) The total amount of Total HAP emissions for all products, in tons.
- (12) The 12-month rolling total of the amount of Total HAP emissions from all products, in tons.

The Single HAP emissions is the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions is the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

- I. If the 12-month rolling total of the VOC emissions exceeds 20.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product, in tons.
 - (2) The total amount of VOC emissions for each product, in tons.
 - (3) The total amount of VOC emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 20.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 20.0 tons, daily recordkeeping will be required per this Condition of this permit.

- J. If the 12-month rolling total of any Single HAP emitted from all emission units/episodes covered by the Single HAP ton per year emission limit cap in Condition 1 of this permit which are regulated by 40 CFR Part 63 Subpart FFFF exceeds 7.0 tons, the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product, in tons.
 - (2) The total amount of Single HAP emissions for each product, in tons.
 - (3) The total amount of Single HAP emissions for all products, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products, in tons.

Daily calculations of each single HAP emissions shall continue until the 365-day rolling total of the amount of all each single HAP emissions from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit which are

regulated by 40 CFR Part 63 Subpart FFFF drops below 7.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of each single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 7.0 tons, daily recordkeeping will be required per this Condition of this permit.

K. If the 12-month rolling total of total HAP emissions from all emission units/episodes covered by the Total HAP ton per year emission limit caps in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF exceeds 18.0 tons, the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product, in tons.
- (2) The total amount of Total HAP emissions for each product, in tons.
- (3) The total amount of Total HAP emissions for all products, in tons.
- (4) The 365-day rolling total of the amount of Total HAP emissions from all products, in tons.

Daily calculations of total HAP emissions shall continue until the 365-day rolling total of the amount of total HAP emissions from all emission units/episodes covered by the Total HAP ton per year emission limit caps in the emission limit section of this permit which are regulated by 40 CFR Part 63 Subpart FFFF drops below 18.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 18.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

L. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

M. All batch process vents associated with the Development Center for Liquids Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Development Center for Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (Development Center for Liquids Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with

the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

- (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
- i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

N. Any continuous process vents associated with the Development Center for Liquids Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Development Center for Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2455 (b), for each continuous process vent in the Development Center for Liquids Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

O. Any wastewater streams associated with Development Center for Liquids Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.

- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1

requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

- Q. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for Development Center for Liquids Plant.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 17-A-007-S1

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-009-S1
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 70

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 17-A-009-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DCL-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): DCL-EL

Emission Unit vented through this Emission Point: DCL-EL

Emission Unit Description: Equipment Leak for Development Center for Liquids Plant

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-010

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The Development Center for Liquids Plant shall have a maximum of 248 liquid valves, 11 liquid pumps, 1485 connectors, 28 open-ended lines, and 26 sample connections. The process shall not have any gas valves, compressors, agitators or pressure relief valves.
 - (1) The owner or operator shall count and document the number and types of components used at the plant. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The company shall modify the component count whenever the number of components change.
- B. All process equipment for the Development Center for Liquids Plant shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. For each product produced in the Development Center for Liquids Plant, the owner or operator shall identify and document each VOC-containing or HAP-containing material used.

D. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the Development Center for Liquids Plant.

NESHAP Subpart FFFF Requirements

E. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Development Center for Liquids Plant.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

(1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permit 17-A-010

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-010
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#10

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Dump (EU 4421)	Sock Filter (CE 4440) ⁽²⁾	1,500 lb/hr
Micro Ingredient System (EU 4401)	Super Sac Baghouse (CE 4423)	1,500 lb/hr
Drum Weighing Station (EU 4435)	Super Sac Baghouse (CE 4423)	1,500 lb/hr
Super Sac Batching (EU 4402)	Super Sac Baghouse (CE 4423)	1,500 lb/hr
Lump Breaker (EU 4433)	NA ⁽¹⁾	1,500 lb/hr
Pneumatic Conveyance (EU 4437)	Blender #1 Baghouse (CE 4424)	1,500 lb/hr
Blender #1 Pneumatic Receiver (EU 4445)	Blender #2 Baghouse (CE 4425)	
Blender #1 (EU 4404)	Blender #1 Baghouse (CE 4424)	1,500 lb/hr
Hammer Mill Feed Screws (EU 4405)	NA ⁽¹⁾	1,500 lb/hr
Hammer Mill (EU 4406)	Blender #2 Baghouse (CE 4425)	1,500 lb/hr
Blender #2 (EU 4407)	Blender #2 Baghouse (CE 4425)	1,500 lb/hr
Air Mill Feeder (EU 4408)	NA ⁽¹⁾	1,500 lb/hr
Air Mill (EU 4409)	Blender #3 Baghouse (CE 4426)	1,500 lb/hr
Pneumatic Conveyance (EU 4438)	Blender #3 Baghouse (CE 4426)	1,500 lb/hr
Blender #3 (EU 4410)	Blender #3 Baghouse (CE 4426)	1,500 lb/hr
Sifter (EU 4411)	NA ⁽¹⁾	1,500 lb/hr
RS Drum (EU4447)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
Pneumatic Conveyance (EU 4439)	BDF Baghouse (CE 4427)	1,500 lb/hr
BDF Hopper (EU 4412)	BDF Baghouse (CE 4427)	1,500 lb/hr
Schugi Feeder (EU 4413)	NA ⁽¹⁾	1,500 lb/hr
Flexomix (EU 4414)	BDF Baghouse (CE 4427)	1,500 lb/hr
Basket Granulator (EU 4415)	Sock Filter (CE 4441) ⁽²⁾	1,500 lb/hr
Pan Granulator (EU 4436)	Sock Filter (CE 4442) ⁽²⁾	1,500 lb/hr
Dryer (EU 4416)	Dryer Baghouse (CE 4428)	1,500 lb/hr, 2.25 MMBtu/hr
Bucket Elevator (EU 4417)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
Vibratory Screener (EU 4418)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
Finished Product Hopper (EU 4420)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
Packaging Equipment (EU 4441)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
Pneumatic Conveyance (EU 4440)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
Recycle Hopper (EU 4419)	Recycle Hopper Baghouse (CE 4429)	1,500 lb/hr
HVFS (EU 44HVFS)	Vacuum System Baghouse (CE 4422)	1,000 lb/hr

Final Baghouse (CE 4430), HEPA Filter (CE 4431), and Regenerative Thermal Oxidizer, 3 MMBtu/hr (CE-DF10-RTO)⁽³⁾

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 12-A-494-S4

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.22 lb/hr

Authority for Requirement: DNR Construction Permit 12-A-494-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.22 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 12-A-494-S4

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm_v

Authority for Requirement: 567 IAC 23.3(2)"e"
DNR Construction Permit 12-A-494-S4

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 3.18 lbs/hr

Authority for Requirement: DNR Construction Permit 12-A-494-S4

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 2.05 lb/hr

Authority for Requirement: DNR Construction Permit 12-A-494-S4

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 5.25 tons/yr

Authority for Requirement: DNR Construction Permit 12-A-494-S4

Pollutant: Total Organic Hazardous Air Pollutants

Emission Limit(s): 98% Reduction or 20 ppm_v ⁽²⁾

Authority for Requirement: DNR Construction Permit 12-A-494-S4

- (2) The emission limit is for Group 1 continuous process vents in Table 1 to Subpart FFFF of Part 63 – *Emission Limits and Work Practice Standards for Continuous Process Vents*. Reduce emissions of Total Organic HAP by ≥ 98 percent by weight or to an outlet process concentration ≤ 20 ppm_v as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare). The facility shall be in compliance with the emission limit at all times, except during periods of startup, shutdown, and malfunction (SSM).

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process and control equipment for DF-10 shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The facility shall only combust natural gas or propane in the Dryer (EU 4416).
- C. The average hourly production rate of this plant (DF-10) shall not exceed 1,500 pounds per hour (lbs/hr) calculated on a daily basis.
- (1) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF-10):
- (a) The facility shall record the amount of product produced by DF-10, in pounds, on a daily basis;
- (b) The facility shall record the hours of operation for DF-10, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE 4430) operates;
- (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF-10 based on the daily amount of product produced and daily hours of operation.
- D. For each product produced in the DF-10 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- E. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF-10 plant.
- F. The facility is limited to operating DF-10 a maximum of 7,400 hours per rolling 12-month period.
- (1) The owner or operator shall record on a monthly basis, the number of hours that DF-10 operated, and the rolling 12-month total amount of hours that DF-10 operated.
- G. The owner or operator shall operate the control equipment at all times when emissions are vented to them.

- H. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- I. The differential pressure drop across the Final Baghouse (4430) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (4430), in inches of water, on a continuous basis. If the pressure drop across the Final Baghouse (4430) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with this permit, in inches of water, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacture, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.
- J. The auxiliary fuel combusted in the Regenerative Thermal Oxidizer (CE-DF10-RTO) shall be limited to natural gas or propane.
- K. The owner or operator shall maintain the temperature (1-hour average) of the Regenerative Thermal Oxidizer (CE-DF10-RTO) during operation of no less than 50 degrees Fahrenheit below the average temperature recorded during the most recent performance test which demonstrated compliance with the VOC and HAP emission limits.
 - (a) The owner or operator shall install, calibrate, operate, and maintain equipment necessary to continuously monitor the temperature of the Regenerative Thermal Oxidizer (CE-DF10-RTO). This equipment shall be installed, operated, and maintained in accordance with the facility's operation and maintenance plan.
 - (b) The owner or operator shall collect and record the temperature of the Regenerative Thermal Oxidizer (CE-DF10-RTO) at a minimum of once every 15 minutes and calculate and record the 1-hour block average. The 1-hour block average shall be calculated using all data points collected during the averaging period.
 - (c) The owner or operator shall retain the most recent stack tests for the Regenerative Thermal Oxidizer (CE-DF10-RTO) that demonstrated compliance with the VOC and HAP emission limits. The permittee shall document the average temperature recorded during those tests, and calculate and document the minimum temperature the Regenerative Thermal Oxidizer (CE-DF10-RTO) shall operate above (50 degrees Fahrenheit below the average temperature recorded during most recent the VOC and HAP performance test which demonstrated compliance with the VOC and HAP emission limits).

NSPS and NESHAP Requirements

- L. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical

Manufacturing-Subpart FFFF], including those not specifically mentioned in this permit.

- (1) The owner or operator shall be in compliance with the emission limits and work practice standards in Tables 1 to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and the applicable requirements specified in §§63.2455 for all continuous process vents.
- (2) The owner or operator shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR §63.6(e). Per 40 CFR §63.2525(j), the SSMP is not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and it is optional for other equipment.
- (3) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

M. All batch process vents that are part of the miscellaneous organic chemical process unit for the DF-10 process shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the DF-10 process, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the DF-10 process) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - (a) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - (b) A record of whether each batch operated was considered a standard batch.
 - (c) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - (d) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

N. All continuous process vents that are part of the miscellaneous organic chemical process unit for the DF-10 process shall be in compliance with the emission limits and work practice standards in Tables 1 to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and meet the applicable requirements specified in §§63.2455.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the DF-10 process, according to 40 CFR Part 63 Subpart FFFF, 63.2550.

- (2) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements for continuous process vents specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- O. As required by 40 CFR §63.2450(e)(1), the owner or operator reducing organic HAP emissions through a closed-vent system to any combination of control devices (except a flare) shall comply with the applicable requirements in §63.982(c) and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable recordkeeping requirements for closed-vent system, as specified in 40 CFR Part 63 Subpart FFFF and §63.998(d), and the requirements referenced therein.
- P. As specified in §63.988, a temperature monitoring device capable of providing a continuous record of the temperature of the Regenerative Thermal Oxidizer (CE-DF10-RTO) is required. As specified in §63.988(c)(1), the temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.
- Q. As specified in §63.996(c), the following conditions for the temperature monitoring system shall be followed:
- (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - (2) The owner or operator shall maintain and operate the equipment in a manner consistent with good air pollution control practices.
 - (a) The owner or operator shall ensure the immediate repair or replacement of parts to correct "routine" or otherwise predictable equipment malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.
 - (b) The owner or operator shall develop and follow a start-up, shutdown, and malfunction plan, and equipment must be repaired immediately, this action shall be recorded as specified in §63.998(c)(1)(ii)(E).
 - (3) All monitoring equipment shall be installed and operational, and the data verified as specified in Subpart FFFF or SS either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - (4) All monitoring equipment shall be installed such that representative measurements of parameters from the regulated source are obtained.
 - (5) In accordance with the 40 CFR Part 63 Subpart FFFF, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, the temperature monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.
 - (6) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the Regenerative Thermal Oxidizer (CE-DF10-RTO).

In order to establish the range, the information required in §63.999(b)(3) shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of §63.997(b)(1) or a prior TRE index value determination, as applicable, or upon existing ranges or limits established under 40 CFR Part 63 Subpart FFFF.

- R. The owner or operator shall meet all of the applicable recordkeeping requirements for the temperature monitoring system, as specified in 40 CFR Part 63 Subpart FFFF, §63.2525, §63.998(b), §63.998(c) and §63.998(d), and the requirements referenced therein. This includes records of the daily average value of the temperature of the Regenerative Thermal Oxidizer (CE-DF10-RTO) for each operating day determined according to the procedures specified in §63.998(b)(3)(i) and (ii) and records of periods when the temperature drops below the operating range established pursuant to § 63.996(c)(6) as specified in §63.998(d).
- S. All wastewater streams that are part of the miscellaneous organic chemical process unit for the DF-10 process shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
 - (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- T. As specified in § 63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- U. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the DF-10 process.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 12-A-494-S4

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 12-A-494-S4
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 76
- Stack Opening, (inches, dia.): 30
- Exhaust Flow Rate (scfm): 13,000
- Exhaust Temperature (°F): 225
- Discharge Style: Vertical Unobstructed
- Authority for Requirement: DNR Construction Permit 12-A-494-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF-11

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Bulk Bag Unloader (EU 5000)	Nuisance Baghouse (CE 5042)	5,000 lb/hr
Drum Dump (EU 5001)	Nuisance Baghouse (CE 5042)	5,000 lb/hr
Batching Hopper (EU 5002)	Nuisance Baghouse (CE 5042)	2,000 lb/hr
Lump Breaker (EU 5004)	Nuisance Baghouse (CE 5042)	5,000 lb/hr
Drum Weighing Station (EU 5007)	Nuisance Baghouse (CE 5042)	NA
Blender 1A (EU 5008)	Nuisance Baghouse (CE 5042)	2,000 lb/hr
Blender 1B (EU 5009)	Nuisance Baghouse (CE 5042)	2,000 lb/hr
Hammermill (EU 5010)	Blender #2 Baghouse (CE 5012)	2,000 lb/hr
Blender #2 (EU 5011)	Blender #2 Baghouse (CE 5012)	2,000 lb/hr
Volumetric Feeder (EU 5055)	Sock Filter (CE 3353) ⁽¹⁾	2,000 lb/hr
ACM (EU 5014)	Mill Filter (CE 5016)	1,500 lb/hr
Blender #3 (EU 5018)	Mill Filter (CE 5016)	2,000 lb/hr
Rotary Sifter (EU 5019)	Blender #4 Baghouse (CE 5022)	2,000 lb/hr
Pneumatic Conveyance (EU 5056)	Blender #4 Baghouse (CE 5022)	2,000 lb/hr
Blender #4 (EU 5021)	Sock Filter (CE 3350) ⁽¹⁾	2,000 lb/hr
LIW Feeder and Hopper (EU 5024)	None ⁽²⁾	2,500 lb/hr
Kneader Feeder Auger (EU 5051)	Sock Filter (CE 3351) ⁽¹⁾	2,500 lb/hr
Kneader Feeder (EU 5026)	Nuisance Baghouse (CE 5042)	2,500 lb/hr
Basket Extruder (EU 5028)	Nuisance Baghouse (CE 5042)	2,500 lb/hr
Radial Extruder (EU 5029)	Nuisance Baghouse (CE 5042)	2,000 lb/hr
Twin Dome Extruder (EU 5050)	Nuisance Baghouse (5042)	2,000 lb/hr
Vibratory Fluid Bed Dryer (EU 5030)	Dryer Baghouse (CE 5032)	1,700 lb/hr, 3.0 MMBtu/hr
Rotary Screener (EU 5035)	Recycle Baghouse (CE 5040)	2,500 lb/hr
Vibratory Screener (EU 5036)	Recycle Baghouse (5040)	2,500 lb/hr
Finished Product Hopper (EU 5037)	Recycle Baghouse (CE 5040)	100 ft ³
Bulk Bag Filler/Drum-Filler (EU 5038)	Recycle Baghouse (CE 5040)	2,500 lb/hr
Recycle Hopper (EU 5039)	Recycle Baghouse (CE 5040)	100 ft ³
Packaging Equipment (EU 5049)	Recycle Baghouse (CE 5040)	NA
Pneumatic Conveyance (EU 5053)	Recycle Baghouse (CE 5040)	2,000 lb/hr
Pneumatic Conveyance (EU 5054)	Nuisance Baghouse (CE 5042)	2,000 lb/hr
Housekeeping Vacuum System (50HVFS)	Vacuum Baghouse (CE 5045)	NA
DF #11 Portable Lump Breaker (EU 5052)	None ⁽²⁾	1,000 lb/hr

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permit 14-A-555-S3

- (1) An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.29 lb/hr

Authority for Requirement: DNR Construction Permit 14-A-555-S3

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.29 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permit 14-A-555-S3

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm_v

Authority for Requirement: 567 IAC 23.3(2)"e"

DNR Construction Permit 14-A-555-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 7.75 lbs/hr

Authority for Requirement: DNR Construction Permit 14-A-555-S3

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The liquid materials employed in the production of the DF-11 products shall not contain any Volatile Organic Compounds (VOCs).
- B. The facility shall only combust natural gas or propane in the Vibratory Fluid Bed Dryer (EU 5030).
- C. The average hourly production rate of this plant (DF-11) shall not exceed 1,615 pounds per hour (lbs/hr) calculated on a daily basis.
 - (1) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF-11):
 - (a) The facility shall record the amount of product produced by DF-11, in pounds, on a daily basis;

- (b) The facility shall record the hours of operation for DF-11, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE 4130) operates;
 - (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF-11 based on the daily amount of product produced and daily hours of operation.
- D. As specified in Condition 2, VOC testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rates. If process changes are made that result in a new worst-case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
 - (1) The facility shall document all products made and the corresponding operating scenarios.
 - (2) The facility shall estimate total VOC emissions for all operating scenarios. The estimates shall be performed using the emission estimation methods specified in conditions N(2) and O(2) of this Condition or other IDNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - (3) The facility shall document the worst-case condition for VOC, Single HAP, and Total HAP. This will include the product made, the corresponding operating scenario, and the VOC, Single HAP, and Total HAP emissions rates.
 - (4) The facility shall document the date of the tests performed for each worst-case condition for VOC, Single HAP, and Total HAP and the results of those tests.
 - (5) The facility shall document the date of any process changes that results in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified in conditions (1), (2), and (3) above. If a new operating scenario results in a new worst-case scenario with a possible emission increase for VOC, Single HAP, and/or Total HAP, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.
- E. For each product produced in the DF-11 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- F. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF-11 plant.
- G. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project (Project Number 14-076) the owner or operator shall document and maintain a record of:
 - (1) A description of the project (Project Number 14-076),
 - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project (Project Number 14-076), and
 - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "*projected actual emissions*" in

subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.

- H. Per 567 IAC 33.3(18)"f"(4), the owner or operator shall:
- (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition 5.H.(2).
 - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
 - (3) Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain these records for a period of ten (10) years after the project (Project Number 14-076) is completed.
- I. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

Control Equipment Requirements

- J. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (2) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- K. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- L. The differential pressure drop across the Final Baghouse (CE 5046) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
- (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (5046), in inches of water, on a continuous basis. If the pressure drop across the Final Baghouse (5046) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with this permit, in inches of water, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacture, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

NSPS and NESHAP Requirements

- M. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- N. All batch process vents associated with DF-11 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF-11, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF-11) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- O. Any continuous process vents associated with DF-11 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF-11, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent DF-11, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- P. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1

requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

- Q. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF-11.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 14-A-555-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-555-S3
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 96.5

Stack Opening, (inches, dia.): 34

Exhaust Flow Rate (scfm): 17,000

Exhaust Temperature (°F): 80-100

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 14-A-555-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF-2

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Weigh Station (EU 14005)	Dryer Baghouse (CE 14440)	2,100 lb/hr
Drum Inverter (EU 14030)	None ⁽²⁾	2,100 lb/hr
Batch Bulk Bag Unloader (EU 14032)	Nuisance Baghouse (CE 14220)	5,000 lb/hr
Batching Station (EU 14000)	Dryer Baghouse (CE 14440)	2,100 lb/hr
Batching Auger (EU 2253)	NA ⁽¹⁾	2,100 lb/hr
Pneumatic Conveyance (EU 14015)	Baghouse (CE 14050)	2,000 lb/hr
Blender #1 (EU 14060)	Baghouse (CE 14050)	2,100 lb/hr
Hammer Mill (EU 14080)	Baghouse (CE 14050)	2,100 lb/hr
Blender #2 (EU 14090)	Baghouse (CE 14050)	2,100 lb/hr
Mill Feed Auger (EU 14110)	NA ⁽¹⁾	2,100 lb/hr
Air Mill (EU 14008)	NA ⁽¹⁾	2,100 lb/hr
ACM (EU 14120)	NA ⁽¹⁾	2,100 lb/hr
Pneumatic Conveyance (EU 14125)	Baghouse (CE 14150/14160)	2,000 lb/hr
Blender #3 (EU 14170)	Baghouse (CE 14150/14160)	2,100 lb/hr
Rotary Sifter (EU 14290)	NA ⁽¹⁾	2,100 lb/hr
Pneumatic Conveyance (EU 14292)	Nuisance Baghouse (CE 14220)	2,000 lb/hr
Pneumatic Conveyance (EU 14295)	BDF Baghouse (CE 14250)	2,000 lb/hr
BDF (EU 14300)	BDF Baghouse (CE 14250)	2,100 lb/hr
Kneader Auger (EU 14320)	NA ⁽¹⁾	2,100 lb/hr
Kneader (EU 14331)	NA ⁽¹⁾	2,100 lb/hr
Extruder (EU 14332)	None ⁽²⁾	1,800 lb/hr
Dryer (EU 14350)	Dryer Baghouse (CE 14440)	2,100 lb/hr
Dryer Auger (EU 14355)	NA ⁽¹⁾	2,100 lb/hr
Pneumatic Conveyance (EU 14360)	Nuisance Baghouse (CE 14220)	250 lb/hr
Bucket Elevator (EU 14380)	Nuisance Baghouse (CE 14220)	2,100 lb/hr
Vibratory Screener (EU 14370)	Nuisance Baghouse (CE 14220)	2,100 lb/hr
Packaging Hopper (EU 14385)	Nuisance Baghouse (CE 14220)	2,100 lb/hr
Packaging Equipment (EU 14390)	Dryer Baghouse (CE 14440)	2,100 lb/hr
Bulk Packaging Equipment (EU 14395)	Dryer Baghouse (CE 14440)	2,100 lb/hr
Rework Auger (EU 14375)	NA ⁽¹⁾	2,100 lb/hr
Rework Hopper (EU 14470)	Dryer Baghouse (CE 14440)	2,100 lb/hr
Auger (EU 14475)	NA ⁽¹⁾	2,100 lb/hr
HVFS (EU 14 HVFS)	Baghouse (CE 14190)	NA

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permit 86-A-116-S4

- (1) An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.35 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permit 86-A-116-S4

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 6.85 lbs/hr

Authority for Requirement: DNR Construction Permit 86-A-116-S4

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The facility shall use steam to heat the Dryer (EU 14350).
- B. The average hourly production rate of this plant (DF#2) shall not exceed 1,800 pounds per hour (lbs/hr) calculated on a daily basis.
 - (1) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF#2):
 - (a) The facility shall record the amount of product produced by DF#2, in pounds, on a daily basis;
 - (b) The facility shall record the hours of operation for DF#2, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE 14410) operates;
 - (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF#2 based on the daily amount of product produced and daily hours of operation.
- C. As specified in Section 2, testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rate. If process changes are made that result in a new worst case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
 - (1) The facility shall document all operating scenarios and worst case conditions.

- (2) The facility shall estimate total VOC emissions for all operating scenarios. The estimates shall be performed using the emission estimation methods specified in conditions J(2) and K(2) of this section or other IDNR approved methods.
 - (3) The facility shall document the date of any process changes made after emissions testing is completed. For each of these changes, the facility shall document the operating scenario and the corresponding emission estimates. If a new operating scenario results in a new worst case scenario with a possible emission increase, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.
- D. For each product produced in the DF#2 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
 - E. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF#2 plant.

Control Equipment Requirements

- F. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- G. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- H. The differential pressure drop across the Final Baghouse (CE 14410) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across the Final Baghouse (CE 14410) for DF#2, in inches of water, on a daily basis. This requirement shall not apply on the days that the baghouse is not in operation. If the pressure drop across the baghouse falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The permittee shall maintain a record any corrective action taken for which data show a deviation from the specified pressure drop range above, including the date and time of the deviations, the date and time corrective action was initiated and completed, and the corrective action taken.

NSPS or NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- J. All batch process vents associated with DF#2 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#2, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF#2) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. Any continuous process vents associated with DF#2 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#2, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent DF#2, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF#2.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 86-A-116-S4

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 86-A-116-S4
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 60

Stack Opening, (inches, dia.): 35 x 35

Exhaust Flow Rate (scfm): 16,700

Exhaust Temperature (°F): 120

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 86-A-116-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF-3

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Batching Station (1000)	Dump Station Bin Vent Baghouse (1057)	2,000 lb/hr
Blender 1 (1002)	Blender 1 Baghouse (1001)	2,000 lb/hr
Hammermill (1004)	Blender 1 Baghouse (1001)	2,000 lb/hr
Blender 2 (1005)	Blender 1 Baghouse (1001)	2,000 lb/hr
ACM Mill (1008)	NA ⁽¹⁾	2,000 lb/hr
Blender 3 (1012)	Blender 3 Baghouse (1011)	2,000 lb/hr
Hopper (1014)	NA ⁽¹⁾	2,000 lb/hr
Blender 4 (1015)	Blender 3 Baghouse (1011)	2,000 lb/hr
Rotarty Sifter (1021)	NA ⁽¹⁾	2,000 lb/hr
BDF (1022)	BDF Baghouse (1017)	2,000 lb/hr
Feeder Pan (1023)	None ⁽²⁾	2,000 lb/hr
Granulation Pan (1024)	BDF Baghouse (1017)	2,000 lb/hr
Fluidized-Bed Dryer-Steam Heated (1025)	Dryer Baghouse (1033)	2,000 lb/hr
Bucket Elevator (1026)	NA ⁽¹⁾	2,000 lb/hr
Sweco Screen (1027)	Nuisance Baghouse (1042)	2,000 lb/hr
Recycle Hopper(1028)	Nuisance Baghouse (1042)	2,000 lb/hr
Finished Product Hopper(1030)	Nuisance Baghouse (1042)	2,000 lb/hr
Packing Area (1031)	Nuisance Baghouse (1042)	2,000 lb/hr
House Keeping Vacuum System(1044)	Vacuum Baghouse (1044)	2,000 lb/hr
Bulk Bag Unloader-1(1046)	Bulk Unloader Bin Vent Baghouse 1 (1052)	2,000 lb/hr
Bulk Bag Unloader-2(1047)	Bulk Unloader Bin Vent Baghouse 2 (1053)	2,000 lb/hr
Lump Breaker(1048)	NA ⁽¹⁾	2,000 lb/hr
Drum Dump Station(1061)	Dump Station Bin Vent Baghouse (1057)	2,000 lb/hr
Kneader(1062)	Nuisance Baghouse (1042)	2,000 lb/hr
Extruder(1063)	NA ⁽¹⁾	2,000 lb/hr
Air Mill(1064)	NA ⁽¹⁾	2,000 lb/hr

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 86-A-117-S7

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.74 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 86-A-117-S7

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 8.00 lbs/hr

Authority for Requirement: DNR Construction Permit 86-A-117-S7

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The facility shall use steam to heat the Dryer (1025).
- B. The average hourly production rate of this plant (DF-3) shall not exceed 1,800 pounds per hour (lbs/hr) calculated on a daily basis.
 - (1) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF-3):
 - (a) The facility shall record the amount of product produced by DF-3, in pounds, on a daily basis;
 - (b) The facility shall record the hours of operation for DF-3, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (1035) operates;

- (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF-3 based on the daily amount of product produced and daily hours of operation.
- C. As specified in Condition 2, testing for DF-3 plant shall be conducted under worst case conditions that are expected to result in the highest VOC emission rate. If process changes are made that result in a new worst-case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
 - 1) The facility shall document all products made and the corresponding operating scenarios.
 - 2) The facility shall estimate total VOC emissions for all operating scenarios. The estimates shall be performed using test data and the emission estimation methods specified in conditions J(2) and K(2) of this section or other Iowa DNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - 3) The facility shall document the worst case condition for VOC emissions. This will include the product made, the corresponding operating scenario, and the VOC emissions rate.
 - 4) The facility shall document the date of the tests performed for each worst case condition for VOC and the results of those tests.
 - 5) The facility shall document the date of any process changes that result in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the Iowa DNR. The facility shall also document these actions upon completion.
- D. For each product produced in the DF-3 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- E. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF-3 plant.

Control Equipment Requirements

- F. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- G. The owner or operator shall operate the control equipment at all times when emissions are vented to them.

H. The differential pressure drop across the Final Baghouse (CE 1035) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.

- (1) The owner or operator shall collect and record the pressure drop across the Final Baghouse (CE 1035) for DF-3, in inches of water, on a daily basis. This requirement shall not apply on the days that the baghouse is not in operation. If the pressure drop across the baghouse falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The permittee shall maintain a record any corrective action taken for which data show a deviation from the specified pressure drop range above, including the date and time of the deviations, the date and time corrective action was initiated and completed, and the corrective action taken.

NSPS or NESHAP Requirements

I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

J. All batch process vents associated with DF-3 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF-3, according to 40 CFR Part 63 Subpart FFFF, 63.2550.

- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF-3) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).

- (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

- (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:

- i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
- ii. A record of whether each batch operated was considered a standard batch.

- iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. Any continuous process vents associated with DF-3 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF-3, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent DF-3, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs §63.2455 (b)(1) through (3).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for DF-3 shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, §63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- N. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF-3.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 86-A-117-S7

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 86-A-117-S7
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 61
Stack Opening, (inches, dia.): 27
Exhaust Flow Rate (scfm): 15,000
Exhaust Temperature (°F): 110
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 86-A-117-S7

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No
Facility Maintained Operation & Maintenance Plan Required? Yes No
Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#4

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Weigh Station (EU DF4 2268)	Nuisance Baghouse 8 (CE DF4 2239)	2,250 lb/hr
Drum Dumper (EU DF4 2252)	None ⁽³⁾	2,000 lb/hr
Batching Station (EU DF4 2201)	Nuisance Baghouse 8 (CE DF4 2239)	3,000 lb/hr
Feeder (EU DF4 2269)	NA ⁽¹⁾	2,000 lb/hr
Batching Bucket Elevator (EU DF4 2202)	NA ⁽¹⁾	2,250 lb/hr
Pneumatic Conveyance to Blender #1 (EU DF4 2270)	Baghouse 1 (CE DF4 2204)	2,250 lb/hr
Blender #1 (EU DF4 2205)	Baghouse 1 (CE DF4 2204)	2,250 lb/hr
Hammer Mill (EU DF4 2207)	Baghouse 1 (CE DF4 2204)	3,000 lb/hr
Blender #2 (EU DF4 2208)	Baghouse 1 (CE DF4 2204)	2,250 lb/hr
Feeder (EU DF4 2210)	NA ⁽¹⁾	2,000 lb/hr
Aero Mechanical Conveyor (EU DF4 2275)	None ⁽³⁾	30,000 lb/hr
Air Mill (EU DF4 2211)	NA ⁽¹⁾	2,000 lb/hr
Pneumatic Conveyance to Blender #3 (EU DF4 2271)	Baghouse 3 (CE DF4 2265)	2,250 lb/hr
Blender 3 (EU DF4 2213)	Baghouse 3 (CE DF4 2265)	2,250 lb/hr
Dryer Bucket Elevator (EU DF4 2217)	Nuisance Baghouse 7 (CE DF4 2238)	2,250 lb/hr
Rotary Sifter (EU DF4 2222)	NA ⁽¹⁾	2,250 lb/hr
Pneumatic Conveyance to Hopper (EU DF4 2272)	Baghouse 3 (CE DF4 2218)	2,250 lb/hr
BDF (EU DF4 2224)	BDF Baghouse (CE DF4 2219)	2,250 lb/hr
Surge Hopper (EU DF4 2232)	Sock Filter (CE DF4 2220) ⁽²⁾	2,250 lb/hr
Feeder (EU DF4 2227)	Sock Filter (CE DF4 2221) ⁽²⁾	2,250 lb/hr
Vibratory Fluid Bed Dryer (EU DF4 2229)	Dryer Baghouse 1 (CE DF4 2230)	3,000 lb/hr
Vibratory Fluid Bed Dryer (EU DF4 2231)	Dryer Baghouse 2 (CE DF4 2232)	3,000 lb/hr
Vibratory Screener (EU DF4 2234)	Nuisance Baghouse 7 (CE DF4 2238)	2,250 lb/hr
Finish Product Hopper (EU DF4 2235)	Nuisance Baghouse 7 (CE DF4 2238)	2,250 lb/hr
Packing Equipment (EU DF4 2236)	Nuisance Baghouse 8 (CE DF4 2239)	2,250 lb/hr
Lump Buster (EU DF4 2240)	NA ⁽¹⁾	2,250 lb/hr
Recycle Hopper (EU DF4 2241)	Nuisance Baghouse 7 (CE DF4 2238)	2,250 lb/hr
Auger (EU DF4 2242)	NA ⁽¹⁾	2,250 lb/hr
Flexomix (EU DF4 2247)	NA ⁽¹⁾	2,250 lb/hr
Jet Mill (EU DF4 2249)	None ⁽³⁾	2,000 lb/hr
Extruder (EU DF4 2248)	Dryer Baghouse (CE DF4 2230)	2,250 lb/hr
Pan Granulator (EU DF4 2251)	Dryer Baghouse (CE DF4 2230)	2,250 lb/hr
Bulk Bag Unloader (EU DF4 2253)	Nuisance Baghouse 8 (CE DF4 2239)	3,000 lb/hr
Auger (EU DF4 2254)	NA ⁽¹⁾	2,250 lb/hr
Pneumatic Conveyance to Conical Screw Mixer (EU DF4 2273)	Conical Screw Mixer Baghouse (CE DF4 2267)	1,000 lb/hr
Conical Screw Mixer (EU DF4 2266)	Conical Screw Mixer Baghouse (CE DF4 2267)	1,000 lb/hr
Collection Drum - Conical Screw Mixer (EU DF4 2274)	None ⁽³⁾	1,000 lb/hr
Housekeeping Vacuum System (EU DF4 22HVFS)	Vacuum System Baghouse (CE DF4 2243)	1,000 lb/hr

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 87-A-110-S2

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 2.73 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 87-A-110-S2

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 7.99 lbs/hr

Authority for Requirement: DNR Construction Permit 87-A-110-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall only use steam in the Vibratory Fluid Bed Dryer (EU DF4 2229) and Vibratory Fluid Bed Dryer (EU DF4 2231).
- B. The average hourly production rate of this plant (DF#4) shall not exceed 2,000 pounds per hour (lb/hr). On a daily basis, the owner or operator shall:
 - a. Record the amount of product produced by DF#4, in pounds;
 - b. Record the hours of operation for DF#4. The hours of operation for the process shall be defined as the amount of time that the Final Baghouse (CE DF4 2246) operates; and
 - c. Calculate and record the average hourly production rate (lb/hr) for DF#4 based on the amount of product produced and the hours of operation.
- C. For each product produced in the DF#4 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced. The owner or operator shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF#4 plant.

- D. As specified in Condition 2, VOC testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rates. If process changes are made that result in a new worst case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
- a. The facility shall document all products made and the corresponding operating scenarios.
 - b. For each operating scenario, the facility shall calculate the VOC emissions, based on the methods used in the application for project 14-184 or other IDNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - c. The facility shall document the worst case condition for VOC emissions. This will include the product made, the corresponding operating scenario, and the VOC emissions rates.
 - d. The facility shall document the date of the tests performed for each worst case condition for VOC and the results of those tests.
 - e. The facility shall document the date of any process changes that result in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified in Condition 5.DE(a) and (b) above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.

Control Equipment Requirements

- E. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- F. The owner or operator shall operate the control equipment at all times when equipment which vents to the control equipment is operating.
- G. The differential pressure drop across the Final Baghouse (CE DF4 2246) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
- (1) The owner or operator shall record the pressure drop across the Final Baghouse (CE DF4 2246), in inches of water column, on a daily basis. If the pressure drop across the Final Baghouse (CE DF4 2246) falls outside the range of 1.0 and 7.0 inches water column, the owner or operator shall investigate the baghouse and make necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with the DF#4 plant, in inches

water column, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacturer, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken on any of the baghouses associated with the DF#4 plant. This requirement shall not apply on any days that the process is not in operation.

NSPS and NESHAP Requirements

- H. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- I. All batch process vents associated with DF#4 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, §63.2550.
 - a. The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#4, according to 40 CFR Part 63 Subpart FFFF, §63.2550.
 - b. As specified in §63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF#4) using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in paragraphs §63.2460 (b)(1) through (7).
 - c. As specified in §63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph §63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - d. As specified in §63.2525(e)(4), unless one of the conditions specified in paragraphs §63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- J. All continuous process vents associated with DF#4 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, §63.2550.

- a. The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#4, according to 40 CFR Part 63 Subpart FFFF, §63.2550.
 - b. As specified in §63.2455(b), for each continuous process vent in DF#4, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in §63.115(d), except as specified in paragraphs §63.2455 (b)(1) through (3).
 - c. As specified in §63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph §63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- K. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF#4.
- a. The facility shall document the results of any NSPS or NESHAP determinations as required above.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for DF#4 shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, §63.2485 and the requirements referenced therein.
- a. The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

Authority for Requirement: DNR Construction Permit 86-A-110-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 86-A-110-S2
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 81
- Stack Opening, (inches, dia.): 35.5 x 47.5
- Exhaust Flow Rate (scfm): 23,500
- Exhaust Temperature (°F): 120
- Discharge Style: Horizontal
- Authority for Requirement: DNR Construction Permit 86-A-110-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#6

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Weigh Station (EU 3000)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Batching Station (EU 3001)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Batching Auger (EU 3002)	Blender #1 Baghouse (CE 3003)	1,500 lb/hr
Blender #1 (EU 3004)	Blender #1 Baghouse (CE 3003)	1,500 lb/hr
Bulk Bag Batching Hopper (EU 3005)	Blender #1 Baghouse (CE 3003)	1,500 lb/hr
Hammer Mill (EU 3006)	Blender #1 Baghouse (CE 3003)	1,500 lb/hr
Pneumatic Conveyance (EU 3007)	Blender #1 Baghouse (CE 3003)	2,000 lb/hr
Blender #2 (EU 3008)	Blender #1 Baghouse (CE 3003)	1,500 lb/hr
Pneumatic Conveyance (EU 3009)	Blender #1 Baghouse (CE 3003)	2,000 lb/hr
Mill Feed Auger (EU 3010)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Blender #3 (EU 3013)	Blender #3 Baghouse (CE 3012)	1,500 lb/hr
Blender #3 Auger (EU 3014)	Blender #3 Baghouse (CE 3012)	1,500 lb/hr
Rotary Sifter (EU 3015)	Blender #3 Baghouse (CE 3012)	1,500 lb/hr
Pneumatic Conveyance 3015 to 3055 (EU 3016)	Nuisance Baghouse (CE 3033)	2,000 lb/hr
Pneumatic Conveyance BDF (EU 3017)	BDF Baghouse (CE 3020)	2,000 lb/hr
Air Mill (EU 3018)	NA ⁽¹⁾	1,500 lb/hr
Pneumatic Conveyance 3018 to 3013 (EU 3019)	Blender #3 Baghouse (CE 3012)	2,000 lb/hr
BDF (EU 3021)	BDF Baghouse (CE 3020)	1,500 lb/hr
BDF Hopper (EU 3040)	Sock Filter ⁽²⁾ (CE 3050)	1,500 lb/hr
Kneader Feed Auger (EU 3024)	Sock Filter ⁽²⁾ (CE 3051) & Dryer Baghouse (CE 3030)	1,500 lb/hr
Kneader (EU 3026)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Extruder (EU 3027)	NA ⁽¹⁾	1,500 lb/hr
Dryer (EU 3028)	Dryer Baghouse (CE 3030)	1,500 lb/hr
Vibratory Screener (EU 3029)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Packaging Equipment (EU 3031)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Bulk Packaging Equipment (EU 3032)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Bucket Elevator (EU 3034)	NA ⁽¹⁾	1,500 lb/hr
Finished Product Hopper (EU 3035)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Dryer Baghouse Auger (EU 3050)	Dryer Baghouse (CE 3030)	1,500 lb/hr
Final Baghouse Auger (EU 3051)	NA ⁽¹⁾	1,500 lb/hr
Bag House Cross Auger #1 (EU 3052)	Dryer Baghouse (CE 3030)	1,500 lb/hr
Bag House Cross Auger #2 (EU 3053)	Dryer Baghouse (CE 3030)	1,500 lb/hr
Pneumatic Conveyance Nuisance BH to 3055 (EU 3054)	Nuisance Baghouse (CE 3033)	2,000 lb/hr
Rework Hopper (EU 3055)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
Rework Drum (EU 3056)	Nuisance Baghouse (CE 3033)	1,500 lb/hr
HVFS (EU 30HVFS)	HVFS Baghouse (CE 3040)	1,500 lb/hr

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 94-A-486-S6

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.86 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 94-A-486-S6

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 6.85 lbs/hr

Authority for Requirement: DNR Construction Permit 94-A-486-S6

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The facility shall use steam to heat the Dryer (EU 3028).
- B. The average hourly production rate of this plant (DF-6) shall not exceed 1,500 pounds per hour (lbs/hr) calculated on a daily basis.
 - (1) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF-6):
 - (a) The facility shall record the amount of product produced by DF-6, in pounds, on a daily basis;
 - (b) The facility shall record the hours of operation for DF-6, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE 3043) operates;
 - (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF-6 based on the daily amount of product produced and daily hours of operation.

- C. As specified in Condition 2, testing for DF-6 plant shall be conducted under worst case conditions that are expected to result in the highest VOC emission rate. If process changes are made that result in a new worst-case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
- 1) The facility shall document all products made and the corresponding operating scenarios.
 - 2) The facility shall estimate total VOC emissions for all operating scenarios. The estimates shall be performed using test data and the emission estimation methods specified in conditions J(2) and K(2) of this section or other Iowa DNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - 3) The facility shall document the worst case condition for VOC emissions. This will include the product made, the corresponding operating scenario, and the VOC emissions rate.

The facility shall document the date of the tests performed for each worst-case condition for VOC and the results of those tests.

- 4) The facility shall document the date of any process changes that result in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the Iowa DNR. The facility shall also document these actions upon completion.
- D. For each product produced in the DF-6 plant, the owner or operator shall identify and document each VOC and HAP containing material used.
- E. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF-6 plant.

Control Equipment Requirements

- F. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- G. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- H. The differential pressure drop across the Final Baghouse (CE 3043) shall be maintained between 0.40 and 7.0 inches water column except during periods of filter replacement.
- (1) The owner or operator shall collect and record the pressure drop across the Final Baghouse (CE 3043) for DF-6, in inches of water, on a daily basis. This requirement shall not apply on the days that the baghouse is not in operation. If the pressure drop across any of the baghouses falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The

permittee shall maintain a record any corrective action taken for which data show a deviation from the specified pressure drop range above, including the date and time of the deviations, the date and time corrective action was initiated and completed, and the corrective action taken.

- (2) The owner or operator shall maintain onsite a copy of the most recent compliance test report which showed compliance with all applicable emission limitations. This report shall include, but not be limited to, the emission rates observed during the testing and the average pressure drop across the Final Baghouse (CE 3043) during the testing.

NSPS and NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF. The process is not considered a miscellaneous organic chemical manufacturing process unit (MCPU) if it does not process, use, or generate any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in § 63.2550.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- J. All batch process vents associated with DF-6 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#6, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF#6) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

- iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- K. Any continuous process vents associated with DF-6 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#6, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent DF#6, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for DF-6 shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, §63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- N. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF-6.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 94-A-486-S6

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 94-A-486-S6
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 70
Stack Opening, (inches, dia.): 26
Exhaust Flow Rate (scfm): 10,070
Exhaust Temperature (°F): 120
Discharge Style: Vertical Obstructed
Authority for Requirement: DNR Construction Permit 94-A-486-S6

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No
Facility Maintained Operation & Maintenance Plan Required? Yes No
Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#7

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Weigh Station (EU 3302)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Drum Dumper (EU 3354)	None ⁽³⁾	1,000 lb/hr
Batching Hopper (EU 3301)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Lump Breaker (EU 3352)	NA ⁽¹⁾	2,000 lb/hr
Pneumatic Conveyance (EU 3340)	Blender #1 Baghouse (CE 3303)	2,000 lb/hr
Blender #1 (EU 3304)	Blender #1 Baghouse (CE 3303)	1,000 lb/hr
Hammer Mill (EU 3305)	Blender #1 Baghouse (CE 3303)	1,000 lb/hr
Blender #2 (EU 3306)	Blender #1 Baghouse (CE 3303)	1,000 lb/hr
Mill Feed Auger (EU 3341)	NA ⁽¹⁾	1,000 lb/hr
Air Mill (EU 3308)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Pneumatic Conveyance (EU 3342)	Blender #3 Baghouse (CE 3309)	2,000 lb/hr
Blender #3 (EU 3310)	Blender #3 Baghouse (CE 3309)	1,000 lb/hr
Rotary Sifter (EU 3311)	NA ⁽¹⁾	1,000 lb/hr
Pneumatic Conveyance (EU 3343)	BDF Baghouse (CE 3350)	2,000 lb/hr
BDF (EU 3312)	BDF Baghouse (CE 3350)	1,000 lb/hr
Kneader Hopper (EU 3313)	Sock Filter (CE 3353) ⁽²⁾	1,000 lb/hr
Kneader Feed Auger (EU 3347)	Sock Filter (CE 3354) ⁽²⁾	1,000 lb/hr
Liquid Batching Tank (EU 3351)	Nuisance Baghouse (CE 3333)	500 gal
Liquid Loss on Weight Storage Tank (EU 3362)	None ⁽³⁾	200 gal
Liquid Loss in Weight System (EU 3353)	None ⁽³⁾	200 gal
Kneader (EU 3316)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Extruder (EU 3317)	None ⁽³⁾	1,000 lb/hr
Dryer (EU 3318)	Dryer Baghouse (CE 3325)	1,000 lb/hr
Bucket Elevator (EU 3319)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Vibratory Screener (EU 3320)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Packaging Hopper (EU 3321)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Bulk Packaging (EU 3322)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Packaging Hopper (EU 3360)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Packaging Equipment (EU 3361)	Sock Filter (CE 3355) ⁽²⁾	1,000 lb/hr
Packaging Drum Dump (EU 3355)	None ⁽³⁾	1,000 lb/hr
Pneumatic Conveyance (EU 3346)	Nuisance Baghouse (CE 3333)	2,000 lb/hr
Pneumatic Conveyance (EU 3348)	Nuisance Baghouse (CE 3333)	2,000 lb/hr
Recycle Hopper (EU 3350)	Nuisance Baghouse (CE 3333)	1,000 lb/hr
Recycle Hopper Auger (EU 3345)	NA ⁽¹⁾	1,000 lb/hr
HVFS (EU 33 HVFS)	HVFS Baghouse (CE 3334)	1,000 lb/hr
Pluronic Slurry Tank (EU 3363)	None ⁽³⁾	100 gal

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 98-A-644-S6

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.03 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 98-A-644-S6

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 6.85 lbs/hr

Authority for Requirement: DNR Construction Permit 98-A-644-S6

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The facility shall only use steam to heat the Dryer (EU 3318).
- B. The average hourly production rate of this plant (DF#7) shall not exceed 1,000 pounds per hour (lbs/hr) calculated on a daily basis. The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF#7), using the following:
 - (1) The facility shall record the amount of product produced by DF#7, in pounds, on a daily basis;
 - (2) The facility shall record the hours of operation for DF#7, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE 3329) operates; and,
 - (3) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF#7 based on the daily amount of product produced and daily hours of operation.

- C. Testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rate. If process changes are made that result in a new worst-case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
- (1) The facility shall document all operating scenarios and worst-case conditions.
 - (2) The facility shall estimate total VOC emissions for all operating scenarios. The estimates shall be performed using the emission estimation methods specified in conditions J(2) and K(2) of this Condition or other IDNR approved methods.
 - (3) The facility shall document the date of any process changes made after initial emissions testing is completed. For each of these changes, the facility shall document the operating scenario and the corresponding emission estimates. If a new operating scenario results in a new worst-case scenario with a possible emission increase, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.
- D. For each product produced in the DF#7 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- E. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF#7 plant.

Control Equipment Requirements

- F. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- G. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- H. The differential pressure drop across the Final Baghouse (CE 3329) shall be maintained between 0.40 and 7.0 inches water column except during periods of filter replacement.
- (1) The owner or operator shall collect and record the pressure drop across the Final Baghouse (CE 3329) for DF-7, in inches of water, on a daily basis. This requirement shall not apply on the days that the baghouse is not in operation. If the pressure drop across any of the baghouses falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The permittee shall maintain a record any corrective action taken for which data show a deviation from the specified pressure drop range above, including the date and time of the deviations, the date and time corrective action was initiated and completed, and the corrective action taken.

- (2) The owner or operator shall maintain onsite a copy of the most recent compliance test report that showed compliance with all applicable emission limitations. This report shall include, but not be limited to, the emission rates observed during the testing and the average pressure drop across the Final Baghouse (CE 3329) during the testing.

NSPS and NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing-Subpart FFFF. The process is not considered a miscellaneous organic chemical manufacturing process unit (MCPU) if it does not process, use, or generate any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in § 63.2550.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- J. All batch process vents associated with DF#7 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#7, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF#7) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - (a) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - (b) A record of whether each batch operated was considered a standard batch.
 - (c) The estimated uncontrolled and controlled emissions for each batch that is considered a nonstandard batch.
 - (d) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

- K. Any continuous process vents associated with DF#7 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#7, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent DF#7, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph § 63.2520 (e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- M. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF#7.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 98-A-644-S6

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 98-A-644-S6
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 75
- Stack Opening, (inches, dia.): 26
- Exhaust Flow Rate (scfm): 12,000
- Exhaust Temperature (°F): 120
- Discharge Style: Vertical Obstructed
- Authority for Requirement: DNR Construction Permit 98-A-644-S6

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#8

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Weighing Station (EU DF8 3440)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Drum Dumper (EU DF8 3441)	None ⁽³⁾	2,250 lb/hr
Batching Station (EU DF8 3401)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Bulk Bag Unloader (EU DF8 3402)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Lump Breaker (EU DF8 3405)	NA ⁽¹⁾	2,250 lb/hr
Blender #1 (EU DF8 3403)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Hammer Mill (EU DF8 3406)	Nuisance Baghouse (CE DF8 3428)	3,000 lb/hr
Blender #2 (EU DF8 3407)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Pneumatic Conveyance to Blender #3/Cyclone Separator (EU DF8 3442)	Cyclone Separator (CE DF8 3438)/Baghouse #2 (CE DF8 3412)	2,250 lb/hr
Feeder (EU DF8 3408)	Cyclone Separator (CE DF8 3438)/Baghouse #2 (CE DF8 3412)	2,250 lb/hr
Air Mill (EU DF8 3410)	Cyclone Separator (CE DF8 3438)/Baghouse #2 (CE DF8 3412)	2,250 lb/hr
ACM (EU DF8 3409)	Cyclone Separator (CE DF8 3438)/Baghouse #2 (CE DF8 3412)	2,250 lb/hr
Blender #3 (EU DF8 3411)	NA ⁽¹⁾	3,000 lb/hr
Rotary Sifter (EU DF8 3414)	NA ⁽¹⁾	2,250 lb/hr
Kneader Feeder (EU DF8 3417)	Sock Filter (CE 3355) ⁽²⁾	2,250 lb/hr
Kneader (EU DF8 3418)	NA ⁽¹⁾	2,250 lb/hr
Extruder (EU DF8 3419)	None ⁽²⁾	2,250 lb/hr
Long Cross Auger (EU DF8 3420a)	NA ⁽¹⁾	2,250 lb/hr
Short Cross Auger (EU DF8 3420b)	NA ⁽¹⁾	2,250 lb/hr
Pan Granulator (EU DF8 3420)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Vibratory Fluid Bed Dryer (EU DF8 3421)	Dryer Baghouse (CE DF8 3433)	3,000 lb/hr; 2.25 MMBtu/hr
Bucket Elevator (EU DF8 3423)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Rotary Screener (EU DF8 3424)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Vibratory Screener (EU DF8 3425)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Packing Equipment (EU DF8 3426)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Aspirator Sifter (EU DF8 3434)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Pneumatic Conveyance to Recycle Hopper (EU DF8 3443)	Recycle Baghouse (CE DF8 3439)	2,250 lb/hr
Recycle Hopper (EU DF8 3435)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
Final Product Hopper (EU DF8 3436)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr
BDF Hopper (EU DF8 3437)	NA ⁽¹⁾	2,250 lb/hr
Housekeeping Vacuum System (EU DF8 34HVFS)	Vacuum System Baghouse (CE DF8 3427)	1,000 lb/hr
Basket Granulator (EU DF8 3422)	Nuisance Baghouse (CE DF8 3428)	2,250 lb/hr

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 99-A-409-S3

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.29 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 99-A-409-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 7.99 lbs/hr

Authority for Requirement: DNR Construction Permit 99-A-409-S3

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall only combust natural gas or propane in the Vibratory Fluid Bed Dryer (EU DF8 3421).
- B. The average hourly production rate of this plant (DF#8) shall not exceed 2,250 pounds per hour (lb/hr). On a daily basis, the owner or operator shall:
 - a. Record the amount of product produced by DF#8, in pounds;
 - b. Record the hours of operation for DF#8. The hours of operation for the process shall be defined as the amount of time that the Final Baghouse (CE DF8 3430) operates; and
 - c. Calculate and record the average hourly production rate (lb/hr) for DF#8 based on the amount of product produced and the hours of operation.
- C. For each product produced in the DF#8 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced. The owner or operator shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF#8 plant.

- D. As specified in Condition 2, VOC testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rates. If process changes are made that result in a new worst case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
- a. The facility shall document all products made and the corresponding operating scenarios.
 - b. For each operating scenario, the facility shall calculate the VOC emissions, based on the methods used in the application for project 14-184 or other IDNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - c. The facility shall document the worst case condition for VOC emissions. This will include the product made, the corresponding operating scenario, and the VOC emissions rates.
 - d. The facility shall document the date of the tests performed for each worst case condition for VOC and the results of those tests.
 - e. The facility shall document the date of any process changes that result in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified in Condition 5.DE(a) and (b) above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.

Control Equipment Requirements

- E. All process and control equipment for this process shall be operated and maintained according to the manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall maintain a record of all inspections and maintenance and any actions resulting from the inspections and maintenance of the process and control equipment in this process.
- F. The owner or operator shall operate the control equipment at all times when equipment which vents to the control equipment is operating.
- G. The differential pressure drop across the Final Baghouse (CE DF8 3430) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
- (1) The owner or operator shall record the pressure drop across the Final Baghouse (CE DF8 3430), in inches of water column, on a daily basis. If the pressure drop across the Final Baghouse (CE DF8 3430) falls outside the range of 1.0 and 7.0 inches water column, the owner or operator shall investigate the baghouse and make necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with the DF#8 plant, in inches water column, on a daily basis. If the pressure drop across any of these baghouses falls outside the range

specified by the manufacturer, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken on any of the baghouses associated with the DF#8 plant. This requirement shall not apply on any days that the process is not in operation.

NSPS and NESHAP Requirements

- H. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- I. All batch process vents associated with DF#8 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, §63.2550.
- a. The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#8, according to 40 CFR Part 63 Subpart FFFF, §63.2550.
 - b. As specified in §63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF#8) using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in paragraphs §63.2460 (b)(1) through (7).
 - c. As specified in §63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph §63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - d. As specified in §63.2525(e)(4), unless one of the conditions specified in paragraphs §63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- J. All continuous process vents associated with DF#8 shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, §63.2550.

- a. The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF#8, according to 40 CFR Part 63 Subpart FFFF, §63.2550.
 - b. As specified in §63.2455(b), for each continuous process vent in DF#8, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in §63.115(d), except as specified in paragraphs §63.2455 (b)(1) through (3).
 - c. As specified in §63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph §63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- K. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF#8.
- a. The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 99-A-409-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 99-A-409-S3
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 90
- Stack Opening, (inches, dia.): 30
- Exhaust Flow Rate (scfm): 15,000
- Exhaust Temperature (°F): 120
- Discharge Style: Vertical Unobstructed
- Authority for Requirement: DNR Construction Permit 99-A-409-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#9

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Bulk Bag Unloader #1 (EU 4101)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Drum Dump (EU 4102)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Batching Station/ Dumping Hood (EU 4140)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Lump Breaker (EU 4103)	NA ⁽¹⁾	1,000 lb/hr
Pneumatic Conveyance (EU 4142)	Blender #1 Baghouse (CE 4105)	1,000 lb/hr
Blender #1 (EU 4104)	Blender #1 Baghouse (CE 4105)	1,000 lb/hr
Feeder #1 (EU 4107)	NA ⁽¹⁾	1,000 lb/hr
Hammer Mill (EU 4108)	Blender #1 Baghouse (CE 4105)	1,000 lb/hr
Blender #2 (EU 4109)	Blender #1 Baghouse (CE 4105)	1,000 lb/hr
Feeder #2 (EU 4110)	NA ⁽¹⁾	1,000 lb/hr
Air Mill (EU 4111)	NA ⁽¹⁾	1,000 lb/hr
Pneumatic Conveyance (EU 4143)	Blender #3 Baghouse (CE 4113)	1,000 lb/hr
Blender #3 (EU 4112)	Blender #3 Baghouse (CE 4113)	1,000 lb/hr
Rotary Sifter (EU 4115)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Pneumatic Conveyance (EU 4144)	BDF Baghouse (CE 4116)	1,000 lb/hr
BDF (EU 4117)	BDF Baghouse (CE 4116)	1,000 lb/hr
Feeder #3 (EU 4118)	NA ⁽¹⁾	1,000 lb/hr
Flexomix (EU 4119)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Kneader (EU 4122)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Basket Granulator (EU 4120)	None ⁽²⁾	1,000 lb/hr
Pan Granulator (EU 4123)	None ⁽²⁾	1,000 lb/hr
Twin Dome Extruder (EU 4121)	None ⁽²⁾	1,000 lb/hr
Vibratory Fluid Bed Dryer (EU 4124)	Dryer Baghouse (CE 4132)	1,000 lb/hr, 2.25 MMBtu/hr
Bucket Elevator (EU 4126)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Vibratory Screener (EU 4127)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Reject Drum (EU 4145)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Rotary Screener/Separator (EU 4128)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Finished Product Hopper (EU 4141)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Packaging Area (EU 4129)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
Recycle Hopper (EU 4139)	Nuisance Baghouse (CE 4130)	1,000 lb/hr
HVFS (EU 41HVFS)	HVFS Baghouse (CE 4136)	1,000 lb/hr
Bulk Bag Unloader #2 (EU 4150)	Nuisance Baghouse (CE 4130)	4,000 lb/hr
Bulk Bag Unloader #2 Auger (EU 4151)	NA ⁽¹⁾	4,000 lb/hr
Bulk Bag Unloader #3 (EU 4152)	Nuisance Baghouse (CE 4130)	4,000 lb/hr
Bulk Bag Unloader #3 Auger (EU 4153)	NA ⁽¹⁾	4,000 lb/hr
Bulk Bag Unloader Hopper (EU 4154)	Nuisance Baghouse (CE 4130)	2,500 lb/hr
Bulk Bag Unloader Lump Breaker (EU 4155)	NA ⁽¹⁾	2,500 lb/hr
Bulk Bag Unloader Pneumatic Conveyance (EU 4156)	Blender #1 Baghouse (CE 4105)	2,500 lb/hr
Pneumatic Conveyance (EU 4157)	Blender #1 Baghouse (CE 4105)	500 lb/hr

Raw Material/Fuel: Herbicide Ingredients

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 09-A-023-S4

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 1.16 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-023-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.16 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 09-A-023-S4

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm_v

Authority for Requirement: 567 IAC 23.3(2)"e"
DNR Construction Permit 09-A-023-S4

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 7.85 lbs/hr

Authority for Requirement: DNR Construction Permit 09-A-023-S4

Pollutant: Single Hazardous Air Pollutant

Emission Limit(s): 2.05 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-023-S4

Pollutant: Total Hazardous Air Pollutants

Emission Limit(s): 4.22 tons/yr

Authority for Requirement: DNR Construction Permit 09-A-023-S4

Pollutant: Total Organic Hazardous Air Pollutants

Emission Limit(s): 98% Reduction or 20 ppm_v⁽²⁾

Authority for Requirement: DNR Construction Permit 09-A-023-S4

- ⁽²⁾ The emission limit is for Group 1 continuous process vents in Table 1 to Subpart FFFF of Part 63 –

Emission Limits and Work Practice Standards for Continuous Process Vents. Reduce emissions of Total Organic HAP by ≥ 98 percent by weight or to an outlet process concentration ≤ 20 ppm_v as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare).

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The facility shall only combust natural gas or propane in the Dryer (EU 4124).
- B. The average hourly production rate of this plant (DF-9) shall not exceed 1,000 pounds per hour (lbs/hr) calculated on a daily basis.
 - (1) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (DF-9):
 - (a) The facility shall record the amount of product produced by DF-9, in pounds, on a daily basis;
 - (b) The facility shall record the hours of operation for DF-9, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE 4130) operates;
 - (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for DF-9 based on the daily amount of product produced and daily hours of operation.
- C. As specified in Section 2, VOC, Single HAP and Total HAP testing shall be conducted under worst case conditions that are expected to result in the highest VOC, Single HAP, and Total HAP emission rates. If process changes are made that result in a new worst case condition that could reasonably be expected to increase VOC, Single HAP, or Total HAP emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
 - (1) The facility shall document all products made and the corresponding operating scenarios.
 - (2) The facility shall estimate total VOC emissions for all operating scenarios. The estimates shall be performed using the emission estimation methods specified in conditions J(2) and K(2) of this section or other IDNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - (3) The facility shall document the worst-case condition for VOC, Single HAP, and Total HAP. This will include the product made, the corresponding operating scenario, and the VOC, Single HAP, and Total HAP emissions rates.
 - (4) The facility shall document the date of the tests performed for each worst case condition for VOC, Single HAP, and Total HAP and the results of those tests.

- (5) The facility shall document the date of any process changes that results in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified in conditions (1), (2), and (3) above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC, Single HAP, and/or Total HAP, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.
- D. For each product produced in the DF-9 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- E. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the DF-9 plant.

Control Equipment Requirements

- F. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- G. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- H. The differential pressure drop across the Final Baghouse (4134) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (4134), in inches of water, on a daily basis. If the pressure drop across the Final Baghouse (4134) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with this permit, in inches of water, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacture, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.
- I. The auxiliary fuel combusted in the Regenerative Thermal Oxidizer (CE 4150) shall be limited to natural gas or propane.
- J. The owner or operator shall maintain the temperature (1-hour average) of the Regenerative Thermal Oxidizer (CE 4150) during operation of no less than 50 degrees Fahrenheit below the average temperature recorded during the most recent performance test which demonstrated compliance with the VOC and HAP emission limits.
 - (1) The owner or operator shall install, calibrate, operate, and maintain equipment necessary to continuously monitor the temperature of the Regenerative Thermal Oxidizer (CE 4150). This equipment shall be installed, operated, and maintained in accordance with the facility's operation and maintenance plan.

- (2) The owner or operator shall collect and record the temperature of the Regenerative Thermal Oxidizer (CE 4150) at a minimum of once every 15 minutes and calculate and record the 1-hour block average. The 1-hour block average shall be calculated using all data points collected during the averaging period.
- (3) The owner or operator shall retain the most recent stack tests for the Regenerative Thermal Oxidizer (CE 4150) that demonstrated compliance with the VOC and HAP emission limits. The permittee shall document the average temperature recorded during those tests, and calculate and document the minimum temperature the Regenerative Thermal Oxidizer (CE 4150) shall operate above (50 degrees Fahrenheit below the average temperature recorded during most recent the VOC and HAP performance test which demonstrated compliance with the VOC and HAP emission limits).

NSPS or NESHAP Requirements

- K. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall be in compliance with the emission limits and work practice standards in Table 1 of 40 CFR Part 63 Subpart FFFF , and the applicable requirements specified in §§63.2455 for all continuous process vents.
 - (2) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- L. All batch process vents associated with DF-9 shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with DF-9, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (DF-9) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - (4) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.

- iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- M. As required by 40 CFR §63.2450(e)(1), the owner or operator reducing organic HAP emissions through a closed-vent system to any combination of control devices (except a flare) shall comply with the applicable requirements in §63.982(c) and the requirements referenced therein.
 - (1) The owner or operator shall meet all of the applicable recordkeeping requirements for closed-vent system, as specified in 40 CFR Part 63 Subpart FFFF and §63.998(d), and the requirements referenced therein.
- N. As specified in §63.988, a temperature monitoring device capable of providing a continuous record of the temperature of the Regenerative Thermal Oxidizer (CE 4150) is required. As specified in §63.988(c)(1), the temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.
- O. As specified in §63.996(c), the following conditions for the temperature monitoring system shall be followed:
 - (1) All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - (2) The owner or operator shall maintain and operate the equipment in a manner consistent with good air pollution control practices.
 - (a) The owner or operator shall ensure the immediate repair or replacement of parts to correct "routine" or otherwise predictable equipment malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available.
 - (b) The owner or operator shall develop and follow a start-up, shutdown, and malfunction plan, and equipment must be repaired immediately, this action shall be recorded as specified in §63.998(c)(1)(ii)(E).
 - (3) All monitoring equipment shall be installed and operational, and the data verified as specified in Subpart FFFF or SS either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - (4) All monitoring equipment shall be installed such that representative measurements of parameters from the regulated source are obtained.
 - (5) In accordance with the 40 CFR Part 63 Subpart FFFF, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, the temperature monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.

- (6) The owner or operator shall establish a range for monitored parameters that indicates proper operation of the Regenerative Thermal Oxidizer (CE 4150). In order to establish the range, the information required in §63.999(b)(3) shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. The range may be based upon a prior performance test meeting the specifications of §63.997(b)(1) or a prior TRE index value determination, as applicable, or upon existing ranges or limits established under 40 CFR Part 63 Subpart FFFF.
- P. The owner or operator shall meet all of the applicable recordkeeping requirements for the temperature monitoring system, as specified in 40 CFR Part 63 Subpart FFFF, §63.2525, §63.998(b), §63.998(c) and §63.998(d), and the requirements referenced therein. This includes records of the daily average value of the temperature of the Regenerative Thermal Oxidizer (CE 4150) for each operating day determined according to the procedures specified in §63.998(b)(3)(i) and (ii) and records of periods when the temperature drops below the operating range established pursuant to § 63.996(c)(6) as specified in §63.998(d).
- Q. All wastewater streams that are part of the miscellaneous organic chemical process unit for the DF 9 process shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- R. As specified in § 63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- S. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF-9.
- (1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 09-A-023-S4

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 09-A-023-S4
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 67

Stack Opening, (inches, dia.): 28

Exhaust Flow Rate (scfm): 14,000

Exhaust Temperature (°F): 200

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-023-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: DF#11-Equipment Leaks

Associated Equipment

Emission Unit vented through this Emission Point: DF#11-Equipment Leaks

Emission Unit Description: DF#11 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.23 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-556

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Operating limits for this emission unit shall be:

- A. The process DF#11 shall have a maximum of 0 gas valves, 0 light liquid valves, 14 heavy liquid valves, 0 light liquid pumps, 2 heavy liquid pumps, 164 connectors, 0 compressors, 0 pressure relief valves, 0 open-ended line, 0 sample connections, and 0 agitators. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- B. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF#11.

Recordkeeping

- A. The owner or operator shall keep an equipment component count, which shall be documented as to the number and types of components used.

- B. The facility shall document the results of any NSPS or NESHAP determinations as required in Section 14.B of the permit.
- C. The facility shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials used in the equipment covered by this permit.

Authority for Requirement: DNR Construction Permit 14-A-556

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-556
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: HR

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): HR

Emission Unit vented through this Emission Point: HR

Emission Unit Description: Facility Haul Roads

Raw Material/Fuel: Fugitive Dust

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 14-A-557
567 IAC 23.3(2)"c"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Operating limits for this emission unit shall be:

- A. All haul road(s) at the facility shall be paved.
- B. The average haul road(s) surface silt loading, as defined in AP-42 section 13.2.1, for all haul road(s) at the facility shall not exceed 3.05 g/m².
- C. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- Limiting truck speed on facility property
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

Recordkeeping

- A. The owner or operator shall determine the silt loading of the paved haul roads monthly with the initial testing being performed within 90 days of the permit issuance date. For each performance test, silt loading sampling shall be done for at least 3 different locations. The three sampled locations shall then be averaged to determine the silt loading average results. The testing shall be completed prior to any cleaning routine done for the paved roads. Silt load testing shall be conducted according to the procedures outlined in AP-42, Appendix C.1 Procedures for Sampling Surface/Bulk Dust Loading and C.2 Procedures for Laboratory Analysis of Surface/Bulk Dust Loading Samples. After two years of silt load testing, the facility may request the Department to reevaluate the silt load sampling frequency requirements.
- B. If silt load testing cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35° F (1.7° C) or because a representative sample cannot be otherwise obtained, then the testing shall be postponed and accomplished as soon as reasonably possible after the scheduled date. The facility shall document the justification used for any postponed tests.
- C. The owner or operator shall maintain a log for each silt load sampling event that contains, at a minimum, the following:
 - a. The date of silt load sampling event;
 - b. the location of the sample;
 - c. the measured silt content in grams;
 - d. sample area used for silt load sampling in meters;
 - e. the silt loading in g/m²
 - f. the operator's initials.
- D. The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.
- A.

Authority for Requirement: DNR Construction Permit 14-A-557

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Equipment Leaks for DF-2, 4, 6, 7, 8, 9

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Construction Permit
DF#2-EL	DF-2-EL	Equipment Leak for Building 14 Chiller System	Herbicide	16-A-301-S1
DF#4-EL	DF-4-EL	DF#4 Equipment Leaks		17-A-254
DF#6-EL	DF-6-EL	Equipment Leak for Water Dispersible Granulation Plant #6		16-A-302-S1
DF#7-EL	DF-7-EL	Equipment Leak for Water Dispersible Granulation Plant #7		16-A-303
DF#8-EL	DF-8-EL	DF#8 Equipment Leaks		17-A-255
DF#9-EL	DF-9-EL	Equipment Leaks for Water Dispersible Granulation Plant #9		17-A-248

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

DF#2-EL General Operating Limits and Recordkeeping Requirements

- A. The Building 14 Chiller System shall have a maximum of 0 gas valves, 53 light liquid or heavy liquid valves, 4 light liquid or heavy liquid pumps, 348 connectors, 10 open-ended line, and no compressors, pressure relief valves, sample connections, and agitators.
 - (1) The owner or operator shall count and document the number and types of components used in Building 14 Chiller System. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The

terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1020, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.

- B. All process equipment for the Building 14 Chiller System shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

DF#2-EL NESHAP Subpart FFFF Requirements

- C. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for Building 14 Chiller System.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

- D. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

DF#4-EL General Operating Limits and Recordkeeping Requirements

- A. All DF#4 Plant equipment shall be operated and maintained according to the manufacturer specifications and maintenance schedule. The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The DF#4 Plant equipment shall have a maximum of 31 light or heavy liquid valves, 7 light or heavy liquid pumps, and 196 light or heavy liquid connectors. The DF#4 Plant equipment shall not include any other valves, compressors, agitators, pressure relief valves, or other components. The owner or operator shall:
 - a. Count and document the number and types of components used in the DF#4 Plant. Components shall include, but are not limited to, valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquids" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgement can be used to determine the vapor pressures; and
 - b. Modify the component count whenever the number of components change.

DF#4-EL NSPS and NESHAP Requirements

- C. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- D. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - a. The owner or operator shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the owner or operator is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the owner or operator shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- E. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in the DF#4 Plant.
 - a. The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

DF#6-EL General Operating Limits and Recordkeeping Requirements

- A. The process DF#6 shall have a maximum of 13 light liquid or heavy liquid valves, 6 light liquid or heavy liquid pumps, 221 connectors, and no gas valves, compressors, pressure relief valves, open-ended line, sample connections, and agitators.
 - (1) The owner or operator shall count and document the number and types of components used at the plant. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures. The company shall modify the component count whenever the number of components change.
 - (2) The company shall modify the component count whenever the number of components change.
- B. All process equipment for DF#6 shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- C. For each product produced in the DF#6 plant, the owner or operator shall identify and document each VOC-containing or HAP-containing material used.
- D. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the DF#6 plant.

DF#6-EL NESHAP Subpart FFFF Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in DF#6.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

DF#7-EL General Operating Limits and Recordkeeping Requirements

- A. The process DF#7 shall have a maximum of 15 light liquid or heavy liquid valves, 5 light liquid or heavy liquid pumps, 160 connectors, and no gas valves, compressors, pressure relief valves, open-ended line, sample connections, and agitators.
 - (1) The owner or operator shall count and document the number and types of components used at the plant. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures. The company shall modify the component count whenever the number of components change.
- B. All process equipment for DF#7 shall be operated and maintained according to manufacturer specifications and maintenance schedule.

- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. For each product produced in the DF#7 plant, the owner or operator shall identify and document each VOC-containing or HAP-containing material used.
- D. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the DF#7 plant.

DF#7-EL NESHAP Subpart FFFF Requirements

- E. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF#7.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.
- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

DF#8-EL General Operating Limits and Recordkeeping Requirements

- A. All DF#8 Plant equipment shall be operated and maintained according to the manufacturer specifications and maintenance schedule. The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The DF#8 Plant equipment shall have a maximum of 24 light or heavy liquid valves, 5 light or heavy liquid pumps, and 160 light or heavy liquid connectors. The DF#8 Plant equipment shall not include any other valves, compressors, agitators, pressure relief valves, or other components. The owner or operator shall:
 - a. Count and document the number and types of components used in the DF#8 Plant. Components shall include, but are not limited to, valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquids" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgement can be used to determine the vapor pressures; and
 - b. Modify the component count whenever the number of components change.

DF#8-EL NSPS and NESHAP Requirements

- C. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

- a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- D. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - a. The owner or operator shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the owner or operator is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the owner or operator shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- E. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in the DF#8 Plant.
 - a. The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

DF#9-EL General Operating Limits and Recordkeeping Requirements

- A. The process DF-9 shall have a maximum of 12 light liquid or heavy liquid valves, 2 light liquid or heavy liquid pumps, and 125 connectors. The process shall not contain the following equipment: gas valves, compressors, pressure relief valves, open-ended line, sample connections, and agitators.
 - (1) The owner or operator shall count and document the number and types of components used at the plant. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall modify the component count whenever the number of components change.
- B. All process equipment for DF-9 shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. For each product produced in the DF-9 plant, the owner or operator shall identify and document each VOC-containing or HAP-containing material used.
- D. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the DF-9 plant.

DF#9-EL NESHAP Subpart FFFF Requirements

E. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for DF-9.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

(1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EC12-BH1

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): EC12-BBU71
Emissions Control Equipment ID Number: CE-EC12-BH1
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: EC12-BBU71
Emission Unit Description: EC 12 Tank 71 Bulk Bag Unloader
Raw Material/Fuel: Herbicide
Rated Capacity: 4,000 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 17-A-544

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.15 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-544

Pollutant: PM₁₀

Emission Limit(s): 0.15 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-544

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.15 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 17-A-544

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- D. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the EC12 processing line.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-544

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permits Listed in Table: Associated Equipment
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Indoors

Stack Opening, (inches, dia.): Vents Indoors

Exhaust Flow Rate (scfm): 1,500

Exhaust Temperature (°F): 70

Discharge Style: Vents Indoors

Authority for Requirement: DNR Construction Permit 17-A-544

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EC44

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
PVA Tank (EU TK-4401)	Bag Batching Baghouse (CE EC44-4401-BH)	30,000 gal/day
PVA Tank – Solids Addition (EU TK-4401-BBS)	Bag Batching Baghouse (CE EC44-4401-BH)	8,500 lb/hr
Shar (EU TK-4402)	Final Baghouse (CE EC44-4402-BH)	30,000 gal/day
Shar – Solids Addition (EU TK-4402-BBS)	Final Baghouse (CE EC44-4402-BH)	8,500 lb/hr
Oil Tank (EU TK-4403)	Final Baghouse (CE EC44-4402-BH)	30,000 gal/day
Holding Tank (EU TK-4404)	Final Baghouse (CE EC44-4402-BH)	30,000 gal/day
Check Tank (EU TK-4405)	Final Baghouse (CE EC44-4402-BH)	30,000 gal/day
Feed/Pack Tank (EU TK-4406)	Final Baghouse (CE EC44-4402-BH)	30,000 gal/day
Drum Heater (EU EC44-Heater)	Final Baghouse (CE EC44-4402-BH)	30,000 gal/day
EC44-Screener (EU EC44- Screener)	None ⁽¹⁾	30,000 gal/day
Box Tank (EU EC44-Box)	None ⁽¹⁾	30,000 gal/day
Packaging (EU EC44 Packaging)	None ⁽¹⁾	30,000 gal/day

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permit 12-A-495-S3

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.07 lb/hr

Authority for Requirement: DNR Construction Permit 12-A-495-S3

Pollutant: PM₁₀

Emission Limit(s): 0.07 lb/hr

Authority for Requirement: DNR Construction Permit 12-A-495-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.07 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 12-A-495-S3

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 5.7 tons/yr⁽²⁾
Authority for Requirement: DNR Construction Permit 12-A-495-S3

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 21.0 tons/yr⁽³⁾
Authority for Requirement: DNR Construction Permit 12-A-495-S3

- (2) Emission limits apply to emissions from the DF#10, EU-SD1 & EC44 processing lines. This limit applies to emission point EP-EC44. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the EC44 processing line.
- (3) Emission limits apply to emissions from the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
 - i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
 - ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process and control equipment for the Building 44 Liquids Plant shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. The permittee shall employ good housekeeping practices for the Building 44 Liquids Plant. Cleanup of liquid spills shall be initiated promptly upon discovery.
- C. For each product produced in the Building 44 Liquids Plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- D. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the Building 44 Liquids Plant.
- E. The facility is limited to operating the Building 44 Liquids Plant a maximum of 6,790 hours per rolling 12-month period.
 - (1) The owner or operator shall record on a monthly basis, the number of hours that the Building 44 Liquids Plant is operated, and the rolling 12-month total amount of hours that the Building 44 Liquids Plant is operated.

Control Equipment Requirements

- F. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- G. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- H. The differential pressure drop across the Final Baghouse (CE EC44-4402-BH) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (CE EC44-4402-BH), in inches of water, on a continuous basis. If the pressure drop across the Final Baghouse (CE EC44-4402-BH) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with this permit, in inches of water, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacture, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- I. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- J. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition K.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee

shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.

- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- K. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition K.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- L. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
- (2) The daily number of standard or nonstandard batches completed for each product produced.
- M. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- N. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (5.7 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the EC44 processing line:

Displacement, Packaging, and Bulk Loadout (Filling)

Gas Sweep

Solids Handling

Evaporation from Screens and Tank Evaporation

Heating

Bulk Storage Tank Emissions

Ancillary Packaging Emissions - Ink Jet & Stenciling

Laboratory Emissions

Tank Cleaning Emissions

Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- O. The facility shall document each product produced in the EC44 processing line.
- P. For each product produced in the EC44 processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition Q.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or

Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.

- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- Q. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.

- (1) The permittee shall use the operating scenarios required in Condition Q.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- R. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- S. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- T. If the 12-month rolling total of the VOC emissions exceeds 4.25 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 4.25 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 4.25 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- U. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- V. Upon and after the compliance date for 40 CFR Part 63 Subpart FFFF, all batch process vents that are part of the miscellaneous organic chemical process unit for the Building

44 Liquids Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Building 44 Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the Building 44 Liquids Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

W. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any continuous process vents that are part of the miscellaneous organic chemical process unit for the Building 44 Liquids Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the Building 44 Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
- (2) As specified in § 63.2455 (b), for each continuous process vent in the Building 44 Liquids Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).

X. After the compliance date for 40 CFR Part 63 Subpart FFFF, the material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 44 Liquids Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) After the compliance date for 40 CFR Part 63 Subpart FFFF, the owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the Building 44 Liquids Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

Y. After the compliance date for 40 CFR Part 63 Subpart FFFF, the facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted

average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 44 Liquids Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) Upon the compliance date for 40 CFR Part 63 Subpart FFFF, the owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the Building 44 Liquids Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- Z. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any wastewater streams that are part of the miscellaneous organic chemical process unit for the Building 44 Liquids Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
 - (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- AA. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- BB. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the Building 44 Liquids Plant.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 12-A-495-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 12-A-495-S3
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37
Stack Opening, (inches, dia.): 14
Exhaust Flow Rate (scfm): 2,000
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 12-A-495-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No
Facility Maintained Operation & Maintenance Plan Required? Yes No
Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B44-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): EC44-EL

Emission Unit vented through this Emission Point: B44-EL

Emission Unit Description: Building 44 Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-210-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials handled in the EC44 processing line, the owner or operator shall record and document the material handled and the origins of the material (i.e. EC44 processing line, 4L and SF processing lines, etc.).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in the EC44 processing line.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The equipment used in Building 44 shall have a maximum of 132 heavy liquid valves, 18 heavy liquid pumps, 956 connectors, 6 open-ended lines, and 9 heavy liquid sample connections. The process shall not use any light liquid components, gas valves,

compressors, agitators, or pressure relief valves. This shall include all of the equipment used in Building 44 to handle any VOC-containing material.

- (1) The owner or operator shall count and document the number and types of components used in Building 44. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. . The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

NSPS and NESHAP Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- G. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 44.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-210-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-210-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EL B42 & B46

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): EL B42 & B46

Emission Unit vented through this Emission Point: EL B42 & B46

Emission Unit Description: VOC Emissions from Equipment Leaks for Buildings B42, B46, B48 Pump House, & Associated Outdoor Equipment

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 14-A-543-S3

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.

- B. For all VOC containing materials handled in B42, B46, B48 Pump House, & associated outdoor equipment, the owner or operator shall record and document the material handled and the origins of the material (i.e. Area 46, B37 processing lines, bulk terminal materials).
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in B42, B46, B48 Pump House, & associated outdoor equipment.

- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.
- D. The combined equipment count for buildings B42 shall not exceed 0 gas valves, 0 light liquid valves, 452 heavy liquid valves, 0 light liquid pumps, 40 heavy liquid pumps, 0 light liquid connectors, 2,421 heavy liquid connectors, 0 compressors, 0 pressure relief valves, 29 open-ended lines, 33 sample connections, and 0 agitators.
- (1) The owner or operator shall count and document the number and types of components used in buildings B42. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.
- E. The maximum HAP content of any material used in buildings B42 equipment shall be 62.0%, by weight.
- F. The combined equipment count for buildings B46 and B48 Pump House, & associated outdoor equipment shall not exceed 0 gas valves, 0 light liquid valves, 92 heavy liquid valves, 0 light liquid pumps, 10 heavy liquid pumps, 0 light liquid connectors, 650 heavy liquid connectors, 0 compressors, 0 pressure relief valves, 0 open-ended lines, 9 sample connections, and 0 agitators.
- (1) The owner or operator shall count and document the number and types of components used in buildings B46 and the B48 Pump House & associated outdoor equipment. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.
- G. The maximum HAP content of any material used in buildings B46 and B48 Pump House, & associated outdoor equipment shall be 70.0%, by weight.

- H. The equipment used in B42, B46, B48 Pump House, & associated outdoor equipment for the B37 processing lines shall have a maximum of 129 heavy liquid valves, 12 heavy liquid pumps, 759 heavy liquid connectors and 11 heavy liquid sample connections. The process shall not use any light liquid components, or any gas valves, compressors, agitators, open-ended lines, or pressure relief valves. This shall include all of the equipment used in B42, B46, B48 Pump House, & associated outdoor equipment for the B37 processing lines.
- (1) The owner or operator shall count and document the number and types of components used in B42, B46, B48 Pump House, & associated outdoor equipment for the Building 37 (B37) processing lines. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are “light liquid” or “heavy liquid” components. The terms “light liquid” and “heavy liquid” shall have the same definitions as “in light liquid service” and “in heavy liquid service” found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
 - (2) The company shall update the component count whenever the number of components change for the equipment used in B42, B46, B48 Pump House, & associated outdoor equipment for the B37 processing lines.

NSPS and NESHAP Requirements

- I. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- J. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- K. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in Building 37 or Area 46.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 14-A-543-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-543-S3
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EL B40 & B45

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): EL B40 & B45

Emission Unit vented through this Emission Point: EL B40 & B45

Emission Unit Description: VOC Emissions from Equipment Leaks for buildings B40, B45, B49 Pump House, & Associated Outdoor Equipment

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 14-A-536-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials handled in buildings B40, B45, B49 Pump House, & associated outdoor equipment, the owner or operator shall record and document the material handled.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all VOC containing materials handled in buildings B40, B45, B49 Pump House, & associated outdoor equipment.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- (2) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.
- D. The combined equipment count for buildings B40, B45, B49 Pump House, & associated outdoor equipment shall have a maximum of 7 gas valves, 0 light liquid valves, 473 heavy liquid valves, 48 DMA valves with manufacturer's guaranteed leak rate of 0.03 gram/hour, 0 light liquid pumps, 31 heavy liquid pumps, 15 gas connectors, 140 light liquid connectors, 2,624 heavy liquid connectors, 0 compressors, 0 pressure relief valves, 33 open-ended lines, 17 sample connections, 0 agitators, and 5 light liquid pressurized railcar threaded connections.
- (1) The owner or operator shall count and document the number and types of components used in buildings B40, B45, B49 Pump House, & associated outdoor equipment. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NESHAP 40 CFR Part 63 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.
- E. The maximum HAP content of any material used in for buildings B40, B45, B49 Pump House, & associated outdoor equipment shall be 1.0%, by weight.

NSPS and NESHAP Requirements

- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- G. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
- (1) The permittee shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the permittee is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the permittee shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- H. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in buildings B40, B45, B49 Pump House, & associated outdoor equipment.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 14-A-536-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-536-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 24-HR

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): 24-HR

Emission Unit vented through this Emission Point: 24-HR

Emission Unit Description: Building 24 Haul Roads

Raw Material/Fuel: Fugitive dust

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 19-A-064
567 IAC 23.3(2)"c"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The maximum vehicle weight, including cargo, of the vehicles traveling the haul roads for the Building 24 tank farms and loadouts for Bulk Transfer Operations shall be not exceed the maximum vehicle weight in 23 CFR§658.17(b).
 - (1) The facility shall keep a copy of 23 CFR§658.17(b).
 - (2) If the maximum vehicle weight is increased in 23 CFR§658.17(b) or if 23 CFR§658.17(b) is rescinded, the facility has 30 days to request a modification of this permit.

- B. The vehicle miles traveled by trucks used for Building 24 tank farms and the associated loadouts for Bulk Transfer Operations shall be less than 45,200 per rolling 12-month

period. The owner or operator shall determine and record the following for Buildings 24 Bulk Transfer Operations:

- (1) All road segments used and the corresponding lengths in miles, which includes all roads to bring materials in, internal handling, and transporting finished materials out.
- (2) The number of trips taken on each road segment transporting materials in and product out of the facility shall be recorded each day.
- (3) The number of trips taken on the internal road segments shall be calculated using the following method:
 - i. Record the amount of material and volume of the mini bulk, in gallons, used each day.
 - ii. Each month, calculate the number of mini bulks by dividing the volume of product by the volume of the mini bulk used. One mini bulk equals one round trip between internal buildings.
- (4) Each month, calculate the total vehicle miles traveled (VMT) by multiplying the number of trips taken on each road segment by the distance of the corresponding road segment and summing the results.
- (5) Calculate and record the twelve-month rolling total of total VMT in miles, monthly.

C. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- o Limiting truck speed on facility property
- o Watering and/or sweeping paved roadways
- o Immediately cleaning-up or dampening all material spills on the roadways

- (1) The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.

Authority for Requirement: DNR Construction Permit 19-A-064

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Area 46 Haul Road Traffic

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): Area 46 Haul Roads

Emission Unit vented through this Emission Point: Area 46 Haul Roads

Emission Unit Description: Area 46 Haul Roads

Raw Material/Fuel: Fugitive dust

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 14-A-537
567 IAC 23.3(2)"c"

Pollutant: Particulate Matter (PM₁₀)

Emission Limit: 12.0 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-537

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit: 7.0 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-537

Pollutant: Particulate Matter

Emission Limit: 22.0 tons/yr

Authority for Requirement: DNR Construction Permit 14-A-537

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit

shall be:

- A. All haul road(s) at the facility shall be paved.
- B. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- Limiting truck speed on facility property
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

Authority for Requirement: DNR Construction Permit 14-A-537

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: HR-B21-25-26-27

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): HR-B21-25-26-27

Emission Unit vented through this Emission Point: HR-B21-25-26-27

Emission Unit Description: Building 21, 25, 26, and 27 Haul Roads

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 18-A-362-S1
567 IAC 23.3(2)"c"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

- A. The maximum vehicle weight, including cargo, of the vehicles traveling the haul roads for the Building 21 Process Area and building 21, 25, 26, and 27 tank farms and loadouts for Bulk Transfer Operations shall be not exceed the maximum vehicle weight in 23 CFR§658.17(b).
 - (1) The facility shall keep a copy of 23 CFR§658.17(b).
 - (2) If the maximum vehicle weight is increased in 23 CFR§658.17(b) or if 23 CFR§658.17(b) is rescinded, the facility has 30 days to request a modification of this permit.
- B. The vehicle miles traveled by trucks used for Building 21, 25, 26, and 27 tank farms and the associated loadouts for Bulk Transfer Operations shall be less than 34,000 per rolling 12 month period. The owner or operator shall determine and record the following for Buildings 21, 25, 26, and 27 Bulk Transfer Operations on a monthly basis:
 - (1) All haul roads (material in and out, internal handling) used and the corresponding lengths.

- (2) The number of trips taken on each haul road route.
- (3) The total vehicle miles travelled (VMT). This shall be accomplished by multiplying the number of trips taken on each haul road route by the distance of the corresponding route and summing the results. As an alternative, the facility may calculate the VMT by multiplying the total number of trips taken by the longest haul road length.
- (4) The twelve-month rolling total of total VMT.
- C. The vehicle miles traveled by trucks associated with Building 21 Process Area shall be less than 27,000 per rolling 12 month period. The owner or operator shall determine and record the following for the Building 21 Process Area on a monthly basis:
 - (1) All haul roads (material in and out, internal handling) used and the corresponding lengths.
 - (2) The number of trips taken on each haul road route.
 - (3) The total vehicle miles travelled (VMT). This shall be accomplished by multiplying the number of trips taken on each haul road route by the distance of the corresponding route and summing the results. As an alternative, the facility may calculate the VMT by multiplying the total number of trips taken by the longest haul road length.
 - (4) The twelve-month rolling total of total VMT.
- D. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- o Limiting truck speed on facility property
- o Watering and/or sweeping paved roadways
- o Immediately cleaning-up or dampening all material spills on the roadways

- (1) The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.

Authority for Requirement: DNR Construction Permit 18-A-362-S1

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: HR-B28-B31

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): HR-B28-B31

Emission Unit vented through this Emission Point: HR-B28-B31

Emission Unit Description: Building 28 and 31 Haul Roads

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: DNR Construction Permit 19-A-066
567 IAC 23.3(2)"c"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The maximum vehicle weight, including cargo, of the vehicles traveling the haul roads for Building 28 and 31 tank farms and loadouts for Bulk Transfer Operations shall be not exceed the maximum vehicle weight in 23 CFR§658.17(b).
 - (3) The facility shall keep a copy of 23 CFR§658.17(b).
 - (4) If the maximum vehicle weight is increased in 23 CFR§658.17(b) or if 23 CFR§658.17(b) is rescinded, the facility has 30 days to request a modification of this permit.
- B. The vehicle miles traveled by trucks used for Building 28 and 31 tank farms and the associated loadouts for Bulk Transfer Operations shall be less than 43,900 per rolling 12-

month period. The owner or operator shall determine and record the following for Buildings 28 and 31 Bulk Transfer Operations:

- (1) All road segments used and the corresponding lengths in miles, which includes all roads to bring materials in, internal handling, and transporting finished materials out.
 - (2) The number of trips taken on each road segment transporting materials in and product out of the facility shall be recorded each day.
 - (3) The number of trips taken on the internal road segments shall be calculated using the following method:
 - i. Record the amount of material and volume of the mini bulk, in gallons, used each day.
 - ii. Each month, calculate the number of mini bulks by dividing the volume of product by the volume of the mini bulk used. One mini bulk equals one round trip between internal buildings.
 - (4) Each month, calculate the total vehicle miles traveled (VMT) by multiplying the number of trips taken on each road segment by the distance of the corresponding road segment and summing the results.
 - (5) Calculate and record the twelve-month rolling total of total VMT in miles, monthly.
- C. The haul roads covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

BMP on haul roads include but are not limited to:

- Limiting truck speed on facility property
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

- (1) The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.

Authority for Requirement: DNR Construction Permit 19-A-066

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: NF

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Shar Tank (EU TK-1401)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Shar Tank – solids addition (EU TK-1401-BBS)	Shar Batching Baghouse (CE NF-1401-BH)	6,750 lb/hr
Aqueous Process Tank (EU TK-1402)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Aqueous Process Tank – solids addition (EU TK-1402-BBS)	Aqueous Batching Baghouse (CE NF-1402-BH)	6,750 lb/hr
Holding Tank (EU TK-1403)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Raw Materials Storage Tank (EU TK-1404)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Check Tank (EU TK-1405)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Pack Tank (EU TK-1406)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Raw Materials Storage Tank (EU TK-1407)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Kelzan Shar Tank (EU TK-1408)	Final Baghouse (CE NF-1404-BH)	24,000 gal/day
Kelzan Shar Tank – solids addition (EU TK-1408-BBS)	Kelzan Shar Batching Baghouse (CE NF-1403-BH)	6,750 lb/hr
NF Mill (EU NFMill)	None ⁽¹⁾	6,750 lb/hr
North Flow Bucket Elevator (EU NFBE)	Final Baghouse (CE NF-1404-BH)	6,750 lb/hr
Box Tank (EU NF-Box)	None ⁽¹⁾	24,000 gal/day
Packaging Reservoir (EU NF-Pack)	None ⁽¹⁾	24,000 gal/day
NF-Screener (EU NF- Screener)	None ⁽¹⁾	24,000 gal/day
Packaging (EU NF-Packaging)	None ⁽¹⁾	24,000 gal/day

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

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- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.86 lb/hr

Authority for Requirement: DNR Construction Permit 12-A-496-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.86 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 12-A-496-S3

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 27.5 tons/yr
Authority for Requirement: DNR Construction Permit 12-A-496-S3

Pollutant: Single Hazardous Air Pollutant
Emission Limit(s): 1.00 tons/yr
Authority for Requirement: DNR Construction Permit 12-A-496-S3

Pollutant: Total Hazardous Air Pollutants
Emission Limit(s): 16.00 tons/yr
Authority for Requirement: DNR Construction Permit 12-A-496-S3

Pollutant: Methanol
Emission Limit(s): 570 tons/yr
Authority for Requirement: DNR Construction Permit 12-A-496-S3

Pollutant: Triethylamine
Emission Limit(s): 5.70 tons/yr
Authority for Requirement: DNR Construction Permit 12-A-496-S3

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For all VOC containing materials used in this plant (North Flowable Liquids Plant), the owner or operator shall record and document the materials used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials processed, used, or generated, in the North Flowable Liquids Plant.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.

- (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.
- D. The production rate of the North Flowable Liquids Plant shall not exceed 24,000 gallons per day.
 - (1) The facility shall record the amount of product produced by North Flowable Liquids Plant, in gallons, on a daily basis.
- E. The VOC vapor pressure of all North Flowable Plant materials off-loaded from rail cars or stored in bulk storage tanks shall be less than or equal to 0.05 psi.
 - (1) The owner or operator shall record and document the maximum true vapor pressure for all North Flowable materials off-loaded from rail cars or stored in bulk storage tanks, in psi.
- F. The VOC vapor molecular weight of all North Flowable Plant materials off-loaded from rail cars or stored in bulk storage tanks shall be less than or equal to 250 lb/lb-mol.
 - (1) The owner or operator shall record and document the VOC vapor molecular weight for all North Flowable materials off-loaded from rail cars or stored in bulk storage tanks, in lb/lb-mol.

Control Equipment Requirements

- G. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- H. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- I. The differential pressure drop across the Final Baghouse (CE NF-1404-BH) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (CE NF-1404-BH), in inches of water, on a daily basis. If the pressure drop across the Final Baghouse (CE NF-1404-BH) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with this permit, in inches of water, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacture, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

Recordkeeping for the North Flowable Liquids Plant VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, methanol, triethylamine, and Total HAP emission limit caps in Condition 1 of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total

HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the North Flowable Liquids Plant:

Displacement, Packaging, and Bulk Loadout (Filling)

Gas Sweep

Solids Handling

Evaporation from Screens and Tank Evaporation

Heating

Drum Heating

Ancillary Packaging Emissions - Ink Jet & Stenciling

Laboratory Emissions

Process Tank Cleaning Emissions

Floor Cleaning Emissions

The VOC emission limit covers emissions from the emission units listed in this permit, as well as a number of unpermitted units, including Drum Heating, Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions. In addition, this limit does not cover any emissions from storage tanks listed in this permit for the North Flowable Liquids Plant.

The HAP emission limits cover the following emission episodes from the emission units covered under this permit for the production of products made in the North Flowable Liquids Plant:

Displacement and Bulk Loadout (Filling)

Gas Sweep

Solids Handling

Evaporation from Screens and Tank Evaporation

Heating

Process Tank Cleaning Emissions

This limit does not cover any emissions from storage tanks. Also, the limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for North Flowable Liquids Plant as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- J. The facility shall document each product produced in the North Flowable Liquids Plant.
- K. For each product produced in the North Flowable Liquids Plant, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, Methanol, Triethylamine, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.

- (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
- (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition KG.5. The facility shall document and provide a justification for the value for each input used.
- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC, Single HAP, methanol, triethylamine, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.

- e. empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, methanol, triethylamine, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- L. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition KG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- M. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, methanol, triethylamine, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
 - (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- N. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 20.0 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:

- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
- (2) The total amount of VOC emissions for each product produced, in tons.
- (3) The total amount of VOC emissions for all products produced, in tons.
- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 20.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 20.0 tons, daily recordkeeping will be required per this Condition of this permit.

- P. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- Q. If the 12-month rolling total of the Single HAP emissions exceeds 0.75 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.75 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.75 tons, daily recordkeeping will be required per this Condition of this permit.

- R. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the methanol ton per year emission limit cap in the emission limit section of this permit:

- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding methanol emissions, in tons.
 - (2) The total amount of methanol emissions for each product produced, in tons.
 - (3) The total amount of methanol emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of methanol emissions from all products produced, in tons.
- S. If the 12-month rolling total of the methanol emissions exceeds 4.25 tons from all emission units/episodes covered by the methanol ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding methanol emissions, for each product produced, in tons.
 - (2) The total amount of methanol emissions for each product produced, in tons.
 - (3) The total amount of methanol emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of methanol emissions from all products produced, in tons.

Daily calculations for methanol emissions shall continue until the 365-day rolling total of the amount of methanol emissions from all emission units covered by the methanol ton per year emission limit cap in the emission limit section of this permit drops below 4.25 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of methanol emissions will cease per this Condition of this permit. If the emissions once again exceed 4.25 tons, daily recordkeeping will be required per this Condition of this permit.

- T. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the triethylamine ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding triethylamine, in tons.
 - (2) The total amount of triethylamine emissions for each product produced, in tons.
 - (3) The total amount of triethylamine emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of triethylamine emissions from all products produced, in tons.
- U. If the 12-month rolling total of the triethylamine emissions exceeds 6.0 tons from all emission units/episodes covered by the triethylamine ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding triethylamine emissions, for each product produced, in tons.
 - (2) The total amount of triethylamine emissions for each product produced, in tons.
 - (3) The total amount of triethylamine emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of triethylamine emissions from all products produced, in tons.

Daily calculations for triethylamine emissions shall continue until the 365-day rolling total of the amount of triethylamine emissions from all emission units covered by the triethylamine ton per year emission limit cap in the emission limit section of this permit drops below 6.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of triethylamine emissions will cease per this Condition of this permit. If the emissions once again exceed 6.0 tons, daily recordkeeping will be required per this Condition of this permit.

- V. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.
- W. If the 12-month rolling total of the Total HAP emissions exceeds 12.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 12.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 12.0 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- X. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- Y. All batch process vents that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the North Flowable Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the North Flowable Liquids Plant) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- Z. Any continuous process vents that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the North Flowable Liquids Plant, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the North Flowable Liquids Plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- AA. The material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- BB. The facility shall load less than 0.65 million liters/year of liquids that contain organic HAP with a rack weighted average partial pressure, as defined in 63.111, greater than or equal to 1.5 pounds per square inch absolute in the transfer racks that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant, as specified for Group 2 Transfer Rack, in 40 CFR Part 63 Subpart FFFF, 63.2550.

- (1) The owner or operator shall determine and document the group status for the transfer racks that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant, as defined in 40 CFR Part 63 Subpart FFFF, 63.2550.
- CC. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the North Flowable Liquids Plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- DD. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- EE. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the North Flowable Liquids Plant.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 12-A-496-S3

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 12-A-496-S3
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 59
- Stack Opening, (inches, dia.): 32 X 43
- Exhaust Flow Rate (scfm): 4,000
- Exhaust Temperature (°F): 82
- Discharge Style: Horizontal
- Authority for Requirement: DNR Construction Permit 12-A-496-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: NF-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): NF-EL

Emission Unit vented through this Emission Point: NF-EL

Emission Unit Description: Equipment Leaks for North Flowable Liquid Plant

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-249

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for the North Flowable Liquid Plant shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For each product produced in the North Flowable Liquid Plant, the owner or operator shall identify and document each VOC-containing or HAP-containing material used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the North Flowable Liquid Plant.
- C. The facility shall identify and document each component used for the North Flowable Liquids Plant. Components include, but are not limited to, valves, pumps, connectors, compressor seals, pressure relief valves, open-ended lines, sample connections, agitators, etc. For each component, the facility shall document:
 - (1) whether it is in light liquid" or "heavy liquid" service. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy

- liquid service" found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures;
- (2) the type of component (liquid valve, liquid pump, etc.);
 - (3) the percent by weight HAP, for all light liquid used in the equipment for the North Flowable Liquids Plant;
 - (4) the percent by weight methanol for all liquids used in the equipment for the North Flowable Liquids Plant;
 - (5) the percent by weight triethylamine for all liquids used in the equipment for the North Flowable Liquids Plant.
- D. The facility shall document the total number of each type of component (liquid valve, liquid pump, etc.) used in the North Flowable Liquid Plant.
- E. The company shall modify the component lists in Condition 5.C or 5.D whenever changes are made to the equipment in North Flowable Liquids Plant.
- F. The North Flowable Liquid Plant shall have a maximum of 121 liquid valves, 15 liquid pumps, 880 connectors, 3 open-ended lines, 8 sample connections, and 7 agitators; and no gas valves, compressors, open-ended lines, agitators or pressure relief valves.
- G. The maximum HAP content of any material used in the equipment for the North Flowable Liquids Plant that is in light liquid service shall be 65.0%, by weight.
- H. The maximum methanol content of any material used in the equipment for the North Flowable Liquids Plant shall be 13.0%, by weight.
- I. The maximum triethylamine content of any material used in the equipment for the North Flowable Liquids Plant shall be 13.0%, by weight.

NESHAP Subpart FFFF Requirements

- J. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the North Flowable Liquid Plant.
- (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.
- K. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- L. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, the owner or operator shall meet each requirement in 40 CFR Part §63.2480 (Table 6) that applies to the equipment in North Flowable Liquid Plant.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permit 17-A-249

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-249
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: SD1

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Natural Gas Heater (EU-SD1-a)	Product Cyclone (CE Cyclone)	2.6 MMBTU/hr
Bag Dump Station/Loss in Weight Feeder (EU-SD1-b)	NA ⁽¹⁾	1,500 lbs of solids/hr
Direct Fired Spray Dryer (EU-SD1-c)	Product Cyclone (CE Cyclone)	1,200 lbs of herbicide/hr
Screeener (EU-SD1-e)	NA ⁽¹⁾	1,200 lbs of herbicide/hr
Super Sack Bag Filler (EU-SD1-f)	NA ⁽¹⁾	1,200 lbs of herbicide/hr
Loading Off-Spec Drum (EU-SD1-g)	NA ⁽¹⁾	1,200 lbs of herbicide/hr

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 13-A-314-S2

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.40 lb/hr

Authority for Requirement: DNR Construction Permit 13-A-314-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.40 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 13-A-314-S2

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 3.83 lb/hr

Authority for Requirement: DNR Construction Permit 13-A-314-S2

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process and control equipment for SD1 shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The facility shall only combust natural gas or propane in the Natural Gas Heater (EU SD1-a).
- C. The facility shall not process any materials with Hazardous Air Pollutants (HAP) in the Direct Fired Spray Dryer (EU SD1-c).
- D. The average hourly production rate of this plant (SD1) shall not exceed 1,200 pounds per hour (lbs/hr, dry weight) calculated on a daily basis.
 - (2) The facility shall calculate and record the average hourly production rate (lbs/hr) of this plant (SD1):
 - (a) The facility shall record the amount of product produced by SD1, in pounds, on a daily basis;
 - (b) The facility shall record the hours of operation for SD1, on a daily basis. The hours of operation for the process is defined as the amount of time that the Final Baghouse (CE Final Baghouse) operates;
 - (c) The facility shall calculate and record on a daily basis the average hourly production rate (lbs/hr) for SD1 based on the daily amount of product produced and daily hours of operation.
- E. As specified in Section 2, VOC testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rate. If process changes are made that result in a new worst case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
 - (1) The facility shall document all products made and the corresponding operating scenarios.
 - (2) For each operating scenario, the facility shall calculate the VOC emissions, based on the methods used in the application for project 16-305 or other IDNR approved methods. The facility shall document all information used to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - (3) The facility shall document the worst case condition for VOC emissions. This will include the product made, the corresponding operating scenario, and the VOC emissions rate.

- (4) The facility shall document the date of the tests performed for each worst case condition for VOC emissions and the results of those tests.
- (5) The facility shall document the date of any process changes that result in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified in conditions (1) and (2) above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC emissions, the facility shall perform emissions testing for VOC within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.
- F. For each product produced in the SD1 plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced.
- G. The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the SD1 process.
- H. The facility is limited to operating SD1 a maximum of 7,100 hours per rolling 12-month period.
 - (1) The owner or operator shall record on a monthly basis, the number of hours that SD1 operated, and the rolling 12-month total amount of hours that EU-SD1 operated.

Control Equipment Requirements

- I. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- J. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- K. The differential pressure drop across the Final Baghouse (*CE Final Baghouse*) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across Final Baghouse (*CE Final Baghouse*), in inches of water, on a continuous basis. If the pressure drop across the Final Baghouse (*CE Final Baghouse*) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall also collect and record the pressure drop across all other control equipment associated with this permit, in inches of water, on a daily basis. If the pressure drop across any of these control devices falls outside the range specified by the manufacture, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the process is not in operation.

NSPS or NESHAP Requirements

L. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.

(1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

M. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for SD1.

(1) The facility shall document the results of any NSPS or NESHAP determinations as required above.

Authority for Requirement: DNR Construction Permit 13-A-314-S2

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 13-A-314-S2
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 62

Stack Opening, (inches, dia.): 18

Exhaust Flow Rate (scfm): 6,000

Exhaust Temperature (°F): 220

Discharge Style: Unobstructed Vertical

Authority for Requirement: DNR Construction Permit 13-A-314-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: SF-BH1

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): SF-BBU-93

Emissions Control Equipment ID Number: CESF-BH1

Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: SF-BBU-93

Emission Unit Description: South Flowable Batching Station

Raw Material/Fuel: Herbicide

Rated Capacity: 3,000 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permit 17-A-103

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.05 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-103

Pollutant: PM₁₀

Emission Limit(s): 0.05lb/hr

Authority for Requirement: DNR Construction Permit 17-A-103

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.05 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permit 17-A-103

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-103

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 17-A-103

- (2) Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- v. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
- vi. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
- (3) Emission limits apply to emissions from the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- v) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- vi) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment for the SF processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.

- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The permittee shall employ good housekeeping practices for the SF processing line. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition F.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.

- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition F.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4Lor SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition LD.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau,

during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

- L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition LD.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- P. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- Q. Upon and after the compliance date for 40 CFR Part 63 Subpart FFFF, all batch process vents that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the SF processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the SF processing line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- R. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any continuous process vents that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the SF processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the SF processing line, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- S. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any wastewater streams that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- T. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified

in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

U. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the SF processing line.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-103

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-103
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Indoors

Stack Opening, (inches, dia.): Vents Indoors

Exhaust Flow Rate (scfm): 1,200

Exhaust Temperature (°F): 70

Discharge Style: Vents Indoors

Authority for Requirement: DNR Construction Permit 17-A-103

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: SF-BH2

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): SF-BBU-127

Emissions Control Equipment ID Number: CESF-BH2

Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: SF-BBU-127

Emission Unit Description: South Flowable Batching Station

Raw Material/Fuel: Herbicide

Rated Capacity: 3,000 lbs/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"

DNR Construction Permit 17-A-104

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{2.5}

Emission Limit(s): 0.05 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-104

Pollutant: PM₁₀

Emission Limit(s): 0.05lb/hr

Authority for Requirement: DNR Construction Permit 17-A-104

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.05 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

DNR Construction Permit 17-A-104

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-104

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 17-A-104

- (2) Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.
- vii. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
- viii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
- (3) Emission limits apply to emissions from the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- vii) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
- viii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. The owner or operator shall operate the control equipment at all times when emissions are vented to them.
- B. All process and control equipment for the SF processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.

- (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- C. The permittee shall employ good housekeeping practices for the SF processing line. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- D. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- E. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition F.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.

- (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
 - f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
 - g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition F.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4Lor SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- J. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- K. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition LD.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau,

during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

- L. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition LD.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- M. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- N. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- O. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- P. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

- Q. Upon and after the compliance date for 40 CFR Part 63 Subpart FFFF, all batch process vents that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the SF processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (the SF processing line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).
 - (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- R. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any continuous process vents that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the SF processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the SF processing line, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- S. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any wastewater streams that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- T. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified

in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

U. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the SF processing line.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-103

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-104
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Indoors

Stack Opening, (inches, dia.): Vents Indoors

Exhaust Flow Rate (scfm): 1,200

Exhaust Temperature (°F): 70

Discharge Style: Vents Indoors

Authority for Requirement: DNR Construction Permit 17-A-104

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: SF-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): SF-EL

Emission Unit vented through this Emission Point: SF-EL

Emission Unit Description: Equipment Leaks for the SF Processing Lines

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-209

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for the SF processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. For each product produced in the SF processing line, the owner or operator shall identify and document each VOC-containing material used.
 - (1) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials used in the SF processing line.
- C. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
- D. The equipment used in the SF processing line shall have a maximum of 117 heavy liquid valves, 10 heavy liquid pumps, 503 connectors, and 6 heavy liquid sample connections. The process shall not use any light liquid components, gas valves, compressors, open-

ended lines, agitators, or pressure relief valves. This shall include all of the equipment used in the SF processing line.

- (1) The owner or operator shall count and document the number and types of components used in the SF processing line. Components include but are not limited to valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquid" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart VVa, §60.481a, except that, if standard reference text or ASTM D2879-83, 96, or 97 data is unavailable, engineering judgment can be used to determine the vapor pressures.
- (2) The company shall modify the component count whenever the number of components change.

NESHAP Subpart FFFF Requirements

- E. The facility shall analyze any changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the SF processing line.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.
- F. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.

Authority for Requirement: DNR Construction Permit 17-A-209

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-209
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: SF-Vent1

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
SF Tank 88 (EUSF- TK88)	None	10,000 gallons
SF Tank 89 (EUSF- TK89)	None	10,000 gallons
SF Tank 90 (EUSF- TK90)	None	12,000 gallons
SF Tank 91 PK4 (EUSF- TK91)	None	6,000 gallons
SF Tank 92 GR1 (EUSF- TK92)	None	6,000 gallons
SF Tank 93 GR1 (EUSF- TK93)	None	3,000 gallons
SF Tank 127 (EUSF- TK127)	None	3,000 gallons
SF Tank 128 (EUSF- TK128)	None	2,000 gallons

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 17-A-105

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 17-A-105

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 25 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-105

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21 tons/yr

Authority for Requirement: DNR Construction Permit 17-A-105

- ⁽²⁾ Emission limits apply to the 4L and South Flowable (SF) processing lines. This limit applies to the following emission points: EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾,

EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L and South Flowable (SF) processing lines.

- i. The VOC emission limit only applies to emissions from equipment associated with the production of products produced in the 4L and SF processing lines. This limit does not apply when the equipment is handling materials for the co-production of products in the 4L or SF and EC44 processing lines.
 - ii. The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the 4L and South Flowable (SF) processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.
- (3) Emission limits apply to emissions from the production of products co-produced in the 4L or SF and EC44 processing lines. This limit applies to the following emission points when products are co-produced in the 4L or SF and EC44 processing lines: EP-EC44⁽ⁱ⁾, EP4L-BH1⁽ⁱ⁾, EPSF –BH1⁽ⁱ⁾, EPSF –BH2⁽ⁱ⁾, EPSF –Vent1⁽ⁱ⁾, EP-B17TF-East⁽ⁱⁱ⁾, EP-B17TF-West⁽ⁱⁱ⁾, EPB17-LO⁽ⁱⁱ⁾, EPB11-LO⁽ⁱⁱ⁾, EP-B13TF-1⁽ⁱⁱ⁾, EPB13-LO⁽ⁱⁱ⁾, and those covered under the 4L Process Line CAP permit⁽ⁱ⁾ and the Building 11 Storage Tanks CAP permit⁽ⁱⁱ⁾. The limit also applies to any associated VOC emissions from the Laboratory, Tank Cleaning, Floor Cleaning, and Packaging for the 4L or SF and EC44 co-production processing line.
- i) The VOC emission limit only applies to emissions from equipment associated with the production of products co-produced in the 4L or SF and EC44 processing lines for emission point EP-EC44. This limit does not apply when the equipment is handling materials for the production of products not co-produced in the 4L or SF and EC44 processing lines.
 - ii) The VOC emission limit only applies to emissions from equipment associated with the storage and loadout of materials from or for the production of products co-produced in the 4L or SF and EC44 processing lines for the listed emission points. This limit does not apply when the equipment is handling materials originating from other sources.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment for the SF processing line shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The permittee shall employ good housekeeping practices for the SF processing line. Cleanup of liquid spills shall be initiated promptly upon discovery.

Recordkeeping for the 4L and SF VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission limit cap (25.0 tpy) in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products made in the 4L and South Flowable (SF) processing lines:

Displacement, Packaging, and Bulk Loadout (Filling)
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- C. The facility shall document each product produced in the 4L or SF processing line. The facility shall also document whether the product is produced alone in the 4L or SF processing line or co-produced with the EC44.
- D. For each product produced in the 4L or SF processing line, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using the equations listed below in Condition E.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau,

during the production of a specific final product to confirm the accuracy of the emission factor.

- a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.

- E. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition ED.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- F. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- G. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- H. If the 12-month rolling total of the VOC emissions exceeds 19.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 19.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 19.0 tons, daily recordkeeping will be required per this section of this permit.

Recordkeeping for the 4L or SF and EC44 VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC ton per year emission (21.0 tpy) limit cap in the emission limit section of this permit. These requirements pertain to the following emission episodes for the production of products co-produced in the 4L or SF and EC44 processing lines:

- Displacement, Packaging, and Bulk Loadout (Filling)
- Gas Sweep
- Solids Handling

Evaporation from Screens and Tank Evaporation
Heating
Bulk Storage Tank Emissions
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions
Floor Cleaning Emissions

The VOC emission limit covers all of the emissions from the emission units and emission episodes in this permit as well as the emission episodes in the other permits that contain the VOC ton per year emission limit cap, as well as a number of unpermitted units, including Ancillary Packaging Emissions - Ink Jet & Stenciling, Laboratory Emissions, and Tank and Floor Cleaning Emissions.

- I. The facility shall document each product produced in the EC44 processing line. The facility shall also document whether the product is produced in the EC44 processing line or co-produced with the 4L or SF processing lines.
- J. For each product co-produced in the EC44 processing line with the 4L or SF processing lines, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition K.5. The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16,

Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.

- b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
- c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
 - (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC emission rate (tons per batch) by summing the emission rate of each emission episode.
- K. The permittee shall record each batch completed and whether it is a standard or nonstandard batch.
- (1) The permittee shall use the operating scenarios required in Condition K.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- L. The permittee shall maintain the following daily records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:

- (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- M. The permittee shall maintain the following monthly records for all of the emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
- (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- N. If the 12-month rolling total of the VOC emissions exceeds 17.0 tons from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 17.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this section of this permit. If the emissions once again exceed 17.0 tons, daily recordkeeping will be required per this section of this permit.

NSPS or NESHAP Requirements

- O. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- P. Upon and after the compliance date for 40 CFR Part 63 Subpart FFFF, all batch process vents that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the SF processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the

uncontrolled organic HAP emissions from each of the batch process vents within the process (the SF processing line) using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs § 63.2460 (b)(1) through (7).

- (3) As specified in § 63.2525(e)(4), unless one of the conditions specified in paragraphs § 63.2525s (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - a. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - b. A record of whether each batch operated was considered a standard batch.
 - c. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - d. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- Q. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any continuous process vents that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the SF processing line, according to 40 CFR Part 63 Subpart FFFF, 63.2550.
 - (2) As specified in § 63.2455 (b), for each continuous process vent in the SF processing line, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in § 63.115(d), except as specified in paragraphs § 63.2455 (b)(1) through (3).
- R. After the compliance date for 40 CFR Part 63 Subpart FFFF, the material stored in the storage tanks that are part of the miscellaneous organic chemical process unit for the 4L processing line with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) After the compliance date for 40 CFR Part 63 Subpart FFFF, the owner or operator shall determine and document the group status for the storage tanks that are part of the miscellaneous organic chemical process unit for the SF processing line, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- S. Upon the compliance date for 40 CFR Part 63 Subpart FFFF, any wastewater streams that are part of the miscellaneous organic chemical process unit for the SF processing line shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
- (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- T. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified

in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

U. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the SF processing line.

(1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-209

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-105
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 1.75

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 70

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 17-A-105

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Formulation Test Plant

Associated Equipment

Emission Unit	Control Equipment	Maximum Rated Capacity
Drum Weigh Station (EU DC 3251)	Dryer Baghouse (CE DC 3225)	400 lb/hr
Drum Dumper (EU DC 3237)	None ⁽²⁾	400 lb/hr
Batching Station (EU DC 3201)	Dryer Baghouse (CE DC 3225)	1,000 lb/hr
Pneumatic Conveyance to Blender #1 (EU DC 3252)	Baghouse 1 (CE DC 3203)	1,000 lb/hr
Blender #1 (EU DC 3204)	Baghouse 1 (CE DC 3203)	400 lb/hr
Hammer Mill (EU DC 3205)	NA ⁽¹⁾	1,500 lb/hr
Blender #2 (EU DC 3206)	Baghouse 1 (CE DC 3203)	1,000 lb/hr
Feeder (EU DC 3207)	NA ⁽¹⁾	1,000 lb/hr
Air Mill (EU DC 3208)	Baghouse 3 (CE DC 3209)	1,000 lb/hr
Pneumatic Conveyance to Blender #3 (EU DC 3253)	Baghouse 3 (CE DC 3209)	1,000 lb/hr
Blender #3 (EU DC 3210)	Baghouse 3 (CE DC 3209)	1,000 lb/hr
Rotary Sifter (EU DC 3211)	NA ⁽¹⁾	1,000 lb/hr
Pneumatic Conveyance to BDF (EU DC 3254)	BDF Baghouse (CE DC 3233)	2,000 lb/hr
BDF (EU DC 3213)	BDF Baghouse (CE DC 3233)	1,000 lb/hr
Volumetric Feeder (EU DC 3214)	NA ⁽¹⁾	1,000 lb/hr
Pan Granulator (EU DC 3215)	None ⁽²⁾	500 lb/hr
Flexomix (EU DC 3256)	Baghouse 1 (CE DC 3203)	2,205 lb/hr
Extruder (EU DC 3217)	None ⁽²⁾	1,000 lb/hr
Vibratory Fluid Bed Dryer (EU DC 3255)	Dryer Baghouse (CE DC 3225)	650 lb/hr
Bucket Elevator (EU DC 3219)	Dryer Baghouse (CE DC 3225)	1,000 lb/hr
Vibratory Screener (EU DC 3220)	Dryer Baghouse (CE DC 3225)	1,000 lb/hr
ACM Mill (EU DC 3232)	Baghouse 3 (CE DC 3209)	1,000 lb/hr
Packaging Area (EU DC 3234)	Dryer Baghouse (CE DC 3225)	400 lb/hr
Feeder (EU DC 3236)	NA ⁽¹⁾	1,500 lb/hr
Basket Granulator (EU DC 3247)	None ⁽²⁾	1,500 lb/hr
Packaging Hopper (EU DC 3248)	NA ⁽¹⁾	400 lb/hr
Housekeeping Vacuum System (EU DC 32HVFC)	Vacuum System Baghouse (CE DC 3250)	800 lb/hr

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 95-A-400-S5

- ⁽¹⁾ An exceedance of the indicator opacity of "*no visible emission (No VE)*" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.71 lb/hr; 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 95-A-400-S5

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 7.99 lb/hr

Authority for Requirement: DNR Construction Permit 95-A-400-S5

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall only use steam in the Vibratory Fluid Bed Dryer (EU DC 3255).
- B. The average hourly production rate of this plant (TEST) shall not exceed 500 pounds per hour (lb/hr). On a daily basis, the owner or operator shall:
 - a. Record the amount of product produced by the TEST plant, in pounds;
 - b. Record the hours of operation for the TEST plant. The hours of operation for the process shall be defined as the amount of time that the Final Baghouse (CE DC 3229) operates; and
 - c. Calculate and record the average hourly production rate (lb/hr) for the TEST plant based on the amount of product produced and the hours of operation.
- C. For each product produced in the TEST plant, the owner or operator shall identify and document each VOC and HAP containing material used or produced. The owner or

operator shall maintain a copy of the Safety Data Sheet (SDS) for all materials used or produced in the TEST plant.

- D. As specified in Condition 2, VOC testing shall be conducted under worst case conditions that are expected to result in the highest VOC emission rates. If process changes are made that result in a new worst case condition that could reasonably be expected to increase VOC emissions, the facility shall perform emissions testing within 90 days of the change or request a determination from the IDNR.
- a. The facility shall document all products made and the corresponding operating scenarios.
 - b. For each operating scenario, the facility shall calculate the VOC emissions, based on the methods used in the application for project 14-184 or other IDNR approved methods. The facility shall document all information need to perform the calculation, including, but not limited to: calculation methods, emission episodes, materials used, process temperatures, and process pressures.
 - c. The facility shall document the worst case condition for VOC emissions. This will include the product made, the corresponding operating scenario, and the VOC emissions rates.
 - d. The facility shall document the date of the tests performed for each worst case condition for VOC and the results of those tests.
 - e. The facility shall document the date of any process changes that result in a new operating scenario. For each of these changes, the facility shall document the product made and the operating scenario and the corresponding emission estimates and information, as specified in Condition 5.DE(a) and (b) above. If a new operating scenario results in a new worst case scenario with a possible emission increase for VOC, the facility shall perform emissions testing for that pollutant within 90 days of the change or request a determination from the IDNR. The facility shall also document these actions upon completion.

Control Equipment Requirements

- E. All process and control equipment for this process shall be operated and maintained according to the manufacturer specifications and maintenance schedule.
- (1) The owner or operator shall maintain a record of all inspections and maintenance and any actions resulting from the inspections and maintenance of the process and control equipment in this process.
- F. The owner or operator shall operate the control equipment at all times when equipment which vents to the control equipment is operating.
- G. The differential pressure drop across the Final Baghouse (CE DC 3229) shall be maintained between 1.0 and 7.0 inches water column except during periods of filter replacement.
- (1) The owner or operator shall record the pressure drop across the Final Baghouse (CE DC 3229), in inches of water column, on a daily basis. If the pressure drop across the Final Baghouse (CE DC 3229) falls outside the range of 1.0 and 7.0 inches water column, the owner or operator shall investigate the baghouse and make necessary corrections. The owner or operator shall also collect and record the pressure drop across all other baghouses associated with the TEST plant, in inches water column, on a daily basis. If the pressure drop across any of these baghouses falls outside the range specified by the manufacturer, the owner or operator shall

investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken on any of the baghouses associated with the TEST plant. This requirement shall not apply on any days that the process is not in operation.

NSPS and NESHAP Requirements

- H. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- I. All batch process vents associated with the TEST plant shall operate as Group 2 Batch Process Vents, as specified in 40 CFR Part 63 Subpart FFFF, §63.2550.
 - a. The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the TEST plant, according to 40 CFR Part 63 Subpart FFFF, §63.2550.
 - b. As specified in §63.2460 (b), the owner or operator shall determine and document the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process (EU TEST) using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in paragraphs §63.2460 (b)(1) through (7).
 - c. As specified in §63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph §63.2460 (b)(6)(i) or (ii). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
 - d. As specified in §63.2525(e)(4), unless one of the conditions specified in paragraphs §63.2525 (e)(1) through e(3) is met, the owner or operator must keep records of the information specified in paragraphs (e)(4)(i) through (iv), as applicable:
 - i. A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
 - ii. A record of whether each batch operated was considered a standard batch.
 - iii. The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
 - iv. Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- J. All continuous process vents associated with the TEST plant shall operate as a Group 2 continuous process vent, as specified in 40 CFR Part 63 Subpart FFFF, §63.2550.
 - a. The owner or operator shall identify and determine and document the type (continuous or batch) and group status for all process vents associated with the TEST plant, according to 40 CFR Part 63 Subpart FFFF, §63.2550.

- b. As specified in §63.2455(b), for each continuous process vent in the TEST plant, the facility shall determine and document the total resource effectiveness (TRE) index value, as specified in §63.115(d), except as specified in paragraphs §63.2455 (b)(1) through (3).
- c. As specified in §63.2445(d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide a report as specified in paragraph §63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- K. As specified in § 63.2445 (d), if a Group 2 emission point becomes a Group 1 emission point after the compliance date, the owner or operator must comply with the Group 1 requirements beginning on the date the switch occurs and provide notification as specified in either paragraph § 63.2460 (b)(6)(i) or (ii) and 63.2520(e)(10)(ii)(C). An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs. The facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.
- L. The facility shall analyze any changes in formulations and determine if there is a change in applicability for any NSPS or NESHAP subparts for the TEST plant.
 - a. The facility shall document the results of any NSPS or NESHAP determinations as required above.
- M. Any wastewater streams that are part of the miscellaneous organic chemical process unit for the TEST plant shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, §63.2485 and the requirements referenced therein.
 - a. The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).

Authority for Requirement: DNR Construction Permit 95-A-400-S5

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 95-A-400-S5
 40 CFR 63 Subpart FFFF
 567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 35
- Stack Opening, (inches, dia.): 18
- Exhaust Flow Rate (scfm): 13,000
- Exhaust Temperature (°F): 120
- Discharge Style: Vertical Unobstructed
- Authority for Requirement: DNR Construction Permit 95-A-400-S5

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: TEST-EL

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): TEST-EL

Emission Unit vented through this Emission Point: TEST-EL

Emission Unit Description: Formulation Test Plant Equipment Leaks

Raw Material/Fuel: Herbicide

Rated Capacity: N/A

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Authority for Requirement: DNR Construction Permit 17-A-256

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. All Formulation Test Plant equipment shall be operated and maintained according to the manufacturer specifications and maintenance schedule. The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The Formulation Test Plant equipment shall have a maximum of 10 light or heavy liquid valves, 3 light or heavy liquid pumps, and 72 light or heavy liquid connectors. The Formulation Test Plant equipment shall not include any other valves, compressors, agitators, pressure relief valves, or other components. The owner or operator shall:
 - a. Count and document the number and types of components used in the Formulation Test Plant. Components shall include, but are not limited to, valves, pumps, connectors, sampling connections, compressor seals, etc. The type must also include whether the components are "light liquid" or "heavy liquid" components. The terms "light liquid" and "heavy liquids" shall have the same definitions as "in light liquid service" and "in heavy liquid service" found in NSPS 40 CFR Part 60 Subpart UU, §63.1019, except that, if standard reference text or ASTM D2879-83,

- 96, or 97 data is unavailable, engineering judgement can be used to determine the vapor pressures; and
- b. Modify the component count whenever the number of components change.

NSPS and NESHAP Requirements

- C. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - a. The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- D. The owner or operator shall meet all applicable requirements for equipment leaks as specified in 40 CFR Part 63 Subpart FFFF, §63.2480, Table 6, and in in the referenced subparts F, H, or UU.
 - a. The owner or operator shall document the subpart they are complying with, and meet all of the applicable requirements as specified in in the referenced subpart, including the record keeping and reporting requirements. At the time of permit issuance, the owner or operator is complying with 40 CFR Part 63 Subpart UU, National Emission Standards for Equipment Leaks—Control Level 2 Standards, §63.1019 - §63.1039. The facility is allowed to change which subpart they are complying with; however, the owner or operator shall notify the Iowa DNR – Air Quality Bureau and DNR Field Office 2 in a compliance report if the subpart they are complying with has changed.
- E. The facility shall analyze all changes in formulations or equipment counts and determine if there is a change in applicability for any NSPS or NESHAP subparts for the equipment used in the Formulation Test Plant.
 - a. The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 17-A-256

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 17-A-256
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Building 42 Storage Tanks

Associated Equipment

EP#	EU#	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit #
EP-TK 1000	TK-993	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	14-A-529-S4
	TK-994	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-995	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-996	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-997	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-998	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-999	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1000	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1005	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1006	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1007	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1008	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1009	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
TK-1010	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None		
TK-1011	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None		
TK-1012	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None		

	TK-1017	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
	TK-1018	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	
EP-TK-1001	TK-1001	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-320-S1
EP-TK-1002	TK-1002	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-321-S1
EP-TK-1003	TK-1003	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-322-S1
EP-TK-1004	TK-1004	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-323-S1
EP-TK-1013	TK-1013	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-324-S1
EP-TK-1014	TK-1014	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-325-S1
EP-TK-1015	TK-1015	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-326-S1
EP-TK-1016	TK-1016	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-327-S1
EP-TK-1019	TK-1019	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-328-S1
EP-TK-1020	TK-1020	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-329-S1
EP-TK-1021	TK-1021	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-330-S1
EP-TK-1022	TK-1022	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-331-S1
EP-TK-1023	TK-1023	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-332-S1
EP-TK-1024	TK-1024	Building 42 Storage Tank	30,000 gallons 200 gallons/minute	None	19-A-333-S1

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permit 14-A-529-S4

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 17 tons/yr⁽²⁾

Authority for Requirement: DNR Construction Permit 14-A-529-S4

Pollutant: Single Hazardous Air Pollutant (HAP)

Emission Limit(s): 0.80 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 14-A-529-S4

Pollutant: Total Hazardous Air Pollutant (HAP)

Emission Limit(s): 10 tons/yr⁽⁴⁾

Authority for Requirement: DNR Construction Permit 14-A-529-S4

- (1) Total VOC emissions from the emissions sources covered under the Area 46 VOC Emission Cap shall not exceed 13.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning. This emission limit was requested by the facility to limit the potential emissions of project 13-423 under the PSD significance threshold for VOC emissions.
- (2) Emission limits apply to emissions for B37 Processing Plant. This limit applies to all of the emission episodes for the B37 Processing Plant listed in operating limit section of this permit.
- (3) The total emissions of each individual HAP from the emissions sources covered under the Area 46 individual HAP Emission Cap shall not exceed 0.80 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage. This emission limit was requested by the facility to limit the potential emissions of project 13-423 below 10 tons per year (tpy) of any one HAP to classify this project as a minor source of HAP emissions for 40 CFR Part 63 Subpart FFFF-National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.
- (4) The total emissions of all cumulative HAP from the emissions sources covered under the Area 46 cumulative HAP Emission Cap shall not exceed 10.0 tons per each 365-day rolling period (or 12-month rolling total, as specified in Condition 5). The cap includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations (excluding finished product packaging), tank cleaning, and uncaptured tanker storage. This emission limit

was requested by the facility to limit the potential emissions of project 13-423 below 25 tpy of combined HAP to classify this project as a minor source of HAP emissions for 40 CFR Part 63 Subpart FFFF-National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only store materials for the Building 37 and Area 46 processing lines in the Building 42 (B42) tank farm.
 - (1) For all materials stored in the tanks in the Building 42 (B42) tank farm, the owner or operator shall record and document the tank used, the material stored, the origins of the material (i.e. B37, Area 46) and amount of VOC-containing material stored.
 - (2) The facility shall maintain a copy of the Safety Data Sheet (SDS) for all materials stored in the tanks in the B42 tank farm.
- C. The permittee shall keep all ports and manways on the tanks in a closed position at all times when storing liquid materials other than when adding materials, measuring liquid heights, and cleaning or maintaining the tanks. Materials must be added to the tank in a manner that minimizes emissions.
 - (1) The owner or operator shall inspect the tanks quarterly to ensure all ports and manways are closed. The facility shall document the results of the inspection.
- D. The permittee shall employ good housekeeping practices. Cleanup of liquid spills shall be initiated promptly upon discovery.
 - (1) The owner or operator shall document all good housekeeping practices used at the facility to minimize emissions from liquid spills.

Recordkeeping for the Area 46 VOC and HAP Emission Caps

The following monitoring and recordkeeping requirements are used to show compliance with the VOC, Single HAP, and Total HAP emission limit caps in the emission limits section of this permit. The Single HAP emissions are defined as the emissions of any individual HAP emitted by the emission episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF. The Total HAP emissions are defined as the sum of all Single HAP emitted by the episode/unit/process that is regulated by 40 CFR Part 63 Subpart FFFF.

The caps includes emissions from the following emission points: Building 40 Storage Tanks (EP-TK-958 - EP-TK-982), B40 Product Loadouts (EP-B40-LO-1 - EP-B40-LO-9), EP B42-1, Building 42 Storage Tanks (EP-TK-1000 - EP-TK-1024), EP B42-3, B42 Product Loadouts (EP-B42-LO-1 - EP-B42-LO-3), EP B45-1, EP B45-2, EP B46-1, and B46 Product Loadouts (EP-B46-LO-1 - EP- B46-LO-5). The cap also includes emissions from all Area 46 uncaptured container filling and heating operations, tank cleaning, uncaptured tanker storage, and tanker cleaning.

The VOC emission limit covers the following emission episodes from the emission units covered under this permit for the production of products made in the Area 46 process:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Drum Heating
Laboratory Emissions
Tank Cleaning Emissions
Tanker Cleaning Emissions

The HAP emission limits covers the following emission episodes from the emission units covered under this permit for the production of products made in Area 46:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Tank Evaporation
Heating
Process Tank Cleaning Emissions

The limit only covers emissions from units that are part of the miscellaneous organic chemical manufacturing process unit (MCPU) for Area 46 process as defined in the subpart.

The facility must keep the following records to show compliance with the emission limit caps:

- E. For each product produced in the Area 46, that uses a VOC-containing or HAP-containing material, the permittee shall determine and record the VOC, Single HAP, and Total HAP emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures,

vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition EG.5. The facility shall document and provide a justification for the value for each input used.

- (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
- (5) The permittee shall calculate and record the VOC, Single HAP, and Total HAP emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.
 - d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
 - e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.

- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the VOC, Single HAP, and Total HAP emission rate (tons/batch) by summing the emission rate of each emission episode.
- F. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition EG.3 above that define the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- G. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC, Single HAP, and Total HAP ton per year emission limit caps in the emission limit section of this permit:
 - (1) The identification of each VOC-containing or HAP-containing material processed, used, or generated; as required to calculate the VOC and HAP emissions for the emission limit caps.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- H. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- I. If the 12-month rolling total of the VOC emissions exceeds 10.4 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.

- (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 10.4 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 10.4 tons, daily recordkeeping will be required per this Condition of this permit.

- J. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Single HAP emissions, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of Single HAP emissions from all products produced, in tons.
- K. If the 12-month rolling total of the Single HAP emissions exceeds 0.80 tons from all emission units/episodes covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding Single HAP emissions, for each product produced, in tons.
 - (2) The total amount of Single HAP emissions for each product produced, in tons.
 - (3) The total amount of Single HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Single HAP emissions from all products produced, in tons.

Daily calculations for Single HAP emissions shall continue until the 365-day rolling total of the amount of Single HAP emissions from all emission units covered by the Single HAP ton per year emission limit cap in the emission limit section of this permit drops below 0.80 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Single HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 0.80 tons, daily recordkeeping will be required per this Condition of this permit.

- L. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding Total HAP emissions, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.

- (4) The 12-month rolling total of the amount of Total HAP emissions from all products produced, in tons.
- M. If the 12-month rolling total of the Total HAP emissions exceeds 8.0 tons from all emission units/episodes covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit, the permittee shall immediately begin keeping the following daily records:
 - (1) The number of standard and nonstandard batches and the corresponding Total HAP emissions, for each product produced, in tons.
 - (2) The total amount of Total HAP emissions for each product produced, in tons.
 - (3) The total amount of Total HAP emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of Total HAP emissions from all products produced, in tons.

Daily calculations for Total HAP emissions shall continue until the 365-day rolling total of the amount of Total HAP emissions from all emission units covered by the Total HAP ton per year emission limit cap in the emission limit section of this permit drops below 8.0 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of Total HAP emissions will cease per this Condition of this permit. If the emissions once again exceed 8.0 tons, daily recordkeeping will be required per this Condition of this permit.

- N. The permittee shall retain Material Safety Data Sheets (MSDS) for all VOC and HAP containing materials used in the emission units covered under the Area 46 Emission Caps.

Recordkeeping for the Building 37 Processing Plant VOC Emission Cap

The following monitoring and recordkeeping requirements are used to show compliance with the VOC emission limit cap in Condition 1 of this permit for the Building 37 Processing Plant. The VOC emission limit covers VOC emissions from the emission units listed in the permits for emissions points 37-1, 37-2, 37-3, and 37-4; those listed in the permits for Building 37 – Interior VOC Emissions, as well as those from miscellaneous sources related to B37 production, including emissions from packaging, laboratory activity, and tank and floor cleaning. The limit also covers VOC emissions from storing materials from B37 in the storage tanks in buildings B11, B39 and B42, and packaging and loadout in buildings B11, B14, B39 and B42. The VOC emission limit covers the following emission episodes from these emission units for the production of products made in the Building 37 Processing Plant:

Displacement, Packaging, and Bulk Loadout (Filling)
Storage Tanks
Gas Sweep
Solids Handling
Evaporation from Screens and Open Tanks
Heating
Ancillary Packaging Emissions - Ink Jet & Stenciling
Laboratory Emissions
Tank Cleaning Emissions

Floor Cleaning Emissions

The facility must keep the following records to show compliance with the VOC emission limit cap:

- O. For each product produced in the Building 37 Processing Plant, that uses a VOC-containing material, the permittee shall determine and record the VOC emission rate (tons/batch) for each standard and nonstandard batch used to produce the product.
 - (1) The permittee shall identify and document each product produced.
 - (2) The permittee shall identify and document each standard and nonstandard batch used to produce each product.
 - (3) The facility shall record the operating scenario for each standard and nonstandard batch. The operating scenario shall list all of the inputs (throughputs, temperatures, vapor pressures, molecular weights, etc.) necessary to calculate the emissions using in the equations listed below in Condition O5.L.(5). The facility shall document and provide a justification for the value for each input used.
 - (4) The permittee shall identify and record each type of emission unit used and the associated emission episodes (as defined in 40 CFR Part 63 Subpart GGG, 63.1251) for each standard and nonstandard batch.
 - (5) The permittee shall calculate and record the VOC emission rate per batch for each emission episode (tons/batch). The emission rates for each emission episode shall be based on emission factors or emission estimation method developed by the permittee according to the guidelines given below. The permittee's calculation of each emission factor or emission estimation method shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor.
 - a. For emissions from Material Loading, Vessel/Container Filling, Vapor Displacement, Process Tank Cleaning, and Packaging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG); or Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.1; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.1 shall be used.
 - b. For emissions from breathing and working losses from storage tanks and storage tank cleaning, Version 4.09 (or better) of the TANKS software or the appropriate equations and methods provided in EPA's AP 42, Compilation of Air Pollutant Emission Factors Section, 7.1, November 2006 (or the most recent version).
 - c. For emissions from Gas Sweep/Purging the appropriate equations and methods provided in §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG), or in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.5; or Volume 2, Chapter 16, Methods for

Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.2 shall be used.

- d. For emissions from Evaporation the appropriate equations and methods provided in Emission Inventory Improvement Program (EIIP) EPA documents: Volume 2, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities, Section 4.3 and 4.4; or Volume 2, Chapter 16, Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Section 3.7 shall be used.
- e. For emissions from heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used. Engineering assessments, as described in 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) may also be used.
- f. For other batch emission episodes in the production of products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
- g. For products where no U.S. EPA emission calculations methods are applicable, stack testing or standard engineering principles shall be used to best represent the emission rate from the unit.

The facility shall document and provide justification for the emission factors and/or emission estimation methods used for each emission episode.

- (6) The facility shall document whether each emission episode is regulated by 40 CFR Part 63 Subpart FFFF.
- (7) For every standard and nonstandard batch for each product, the facility shall calculate and document the total VOC emission rate (tons/batch) by summing the emission rate of each emission episode.
- P. The permittee shall record each batch completed. The record shall include the product produced, and whether it is a standard or nonstandard batch.
 - (1) The permittee shall use the operating scenarios required in Condition ~~O5.L~~(3) above that defines the standard batch in order to make the determination of whether the batch is standard or nonstandard.
- Q. The permittee shall maintain the following daily records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The identification of each VOC-containing material processed, used, or generated; as required to calculate the VOC emissions for the emission limit cap.
 - (2) The daily number of standard or nonstandard batches completed for each product produced.
- R. The permittee shall maintain the following monthly records for all of the emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit:
 - (1) The number of standard and nonstandard batches completed for each product produced and the corresponding VOC emissions, in tons.

- (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 12-month rolling total of the amount of VOC emissions from all products produced, in tons.
- S. If the 12-month rolling total of the VOC emissions exceeds 13.5 tons from all emission units/episodes covered by the VOC ton per year emission limit cap in the emission limit section of this permit., the permittee shall immediately begin keeping the following daily records:
- (1) The number of standard and nonstandard batches and the corresponding VOC emissions, for each product produced, in tons.
 - (2) The total amount of VOC emissions for each product produced, in tons.
 - (3) The total amount of VOC emissions for all products produced, in tons.
 - (4) The 365-day rolling total of the amount of VOC emissions from all products produced, in tons.

Daily calculations for VOC emissions shall continue until the 365-day rolling total of the amount of VOC emissions from all emission units covered by the VOC ton per year emission limit cap in the emission limit section of this permit drops below 13.5 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling daily calculation of VOC emissions will cease per this Condition of this permit. If the emissions once again exceed 13.5 tons, daily recordkeeping will be required per this Condition of this permit.

NSPS and NESHAP Requirements

- T. The maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL), as defined in 40 CFR Part 51.100, stored in the bulk storage tanks TK-993 - TK-1024 shall be less than 15.0 kPa.
- (1) The facility shall keep readily accessible records showing the dimensions and capacity for the bulk storage tanks TK-993 - TK-1024.
 - (2) The facility shall document the maximum true vapor pressure, as defined in 40 CFR Part 60.111b, of the volatile organic compounds (VOL) stored in the bulk storage tanks TK-993 - TK-1024.
 - (3) The facility shall notify the Administrator within 30 days if the maximum true vapor pressure of the liquids stored in the bulk storage tanks TK-993 - TK-1024 exceeds 15.0 kPa.
- U. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
- (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- V. The owner or operator shall determine and document which storage tanks covered under this permit is subject to 40 CFR Part 63 Subpart FFFF, and, if subject, to which miscellaneous organic chemical process unit (MCPU) the tank is assigned, using the procedures in § 63.2435 (d), if applicable.

- W. The material stored in the bulk storage tanks TK-993 - TK-1024 that are part of a miscellaneous organic chemical process unit, and with a capacity greater than or equal to 10,000 gallons, shall have a maximum true vapor pressure of 6.9 kPa (pounds per square inch, absolute (psia)), as specified for Group 2 Storage Tank, in 40 CFR Part 63 Subpart FFFF, 63.2550.
- (1) The owner or operator shall determine and document the maximum true vapor pressure and the group status for the storage tanks that are part of a miscellaneous organic chemical process unit for the B42 Tank Farm, as specified in 40 CFR Part 63 Subpart FFFF, 63.2550.
- X. The facility shall analyze all changes in material stored in any applicable storage tank and determine if there is a change in applicability for any NSPS or NESHAP subparts.
- (1) The facility shall document all changes in the contents of the tanks or process or formulations changes to any tank that is part of a MCPU and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 14-A-529-S4

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 14-A-529-S4
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP ID	Stack Height, Feet	Discharge Style	Stack Opening, inches	Stack Temperature, °F	Exhaust Flowrate, SCFM
EP-B42TF-1000	12.5	Downward	6	74	Displacement
EP-B42TF-1001-1004, 1013-1016, 1019-1024	12.0	Downward	3	74	Displacement

Authority for Requirement: DNR Construction Permit 14-A-529-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-B35 Packaging

Associated Equipment

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID
EU-B35-3500	B35 Container Unloading	3000 lb/hr	Baghouse (CE-B35-Final)
EU-B35-3510	B35 Packaging Hopper	3000 lb/hr	
EU-B35-3520	B35 Packaging Equipment	1250 lb/hr	

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: DNR Construction Permit 20-A-373

⁽¹⁾ An exceedance of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 13 tons/yr⁽¹⁾

Authority for Requirement: DNR Construction Permit 20-A-373

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. B35 packaging area is limited to package only solid granulated materials from DF-8, DF-10, DF-11, Development Center (DC), and external packaging operations.
 - a. The owner or operator shall keep a log of the type of material and the location of material production.

Control Equipment Requirements

- B. The owner or operator shall operate the control equipment at all times when emissions are vented to them.

- C. The owner or operator shall operate, inspect and maintain all the equipment associated with the process and the Final Baghouse (CE-B35-Final) in accordance with manufacturer's specifications and maintenance schedule.
 - a. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection or maintenance of the Final Baghouse (CE-B35-Final).

- D. The differential pressure drop across the Final Baghouse (CE-B35-Final) shall be maintained between 0.1 and 7.0 inches water column except during periods of filter replacement.
 - (1) The owner or operator shall collect and record the pressure drop across the Final Baghouse (CE-B35-Final), in inches of water, on a daily basis. If the pressure drop across the Final Baghouse (CE-B35-Final) falls outside the range specified above, the owner or operator shall investigate the baghouse and make the necessary corrections. The owner or operator shall maintain a record of all corrective actions taken. The permittee shall maintain a record any corrective action taken for which data show a deviation from the specified pressure drop range above, including the date and time of the deviations, the date and time corrective action was initiated and completed, and the corrective action taken. This requirement shall not apply on the days the process is not in operation.

Authority for Requirement: DNR Construction Permit 20-A-373

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 20-A-373
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Parameter	Value
Stack Height (feet from the ground)	NA*
Discharge Style	NA*
Stack Outlet Dimensions (inches)	NA*
Exhaust Temperature (°F)	70
Exhaust Flowrate (scfm)	2,500

Authority for Requirement: DNR Construction Permit 20-A-373

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B38WW

Associated Equipment

Emission Unit Description (EU ID)	Control Equipment	Maximum Rated Capacity
Wastewater Treatment Flocculation Bag Dump Station 1 (EU-WWTP-DS1)	None	1,000 lb/hr
Wastewater Treatment Flocculation Bag Dump Station 2 (EU-WWTP-DS2)	None	1,000 lb/hr
Wastewater Treatment Tank 905 (EU WWTP-TK905)	None	50,000 gallons
Wastewater Treatment Flocculation Tank 1 (EU WWTP-FT1)	None	450 gallons
Wastewater Treatment Flocculation Tank 2 (EU WWTP-FT2)	None	450 gallons
Wastewater Treatment Tank 902 (EU WWTP-TK902)	None	7,000 gallons
Wastewater Treatment Tank 903 (EU WWTP-TK903)	None	7,000 gallons
Wastewater Treatment Tank 904 (EU WWTP-TK904)	None	7,000 gallons

Raw Material/Fuel: Herbicide

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 19-A-354

- ⁽¹⁾ An exceedance of the indicator opacity of 25% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 19-A-354

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

General Operating Limits and Recordkeeping Requirements

- A. All process equipment shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the process equipment for this process.
- B. The owner or operator shall only treat wastewater from the dry flowable plants; liquid plants 4L-SF, EC-17, B21; and the Truck Wash.
 - (1) The owner or operator shall keep a record of all wastewater treated in B38 and the origins of the wastewater.
- C. The amount of wastewater processed in building B38 shall not exceed 3.0 million gallons per rolling twelve-month period.
 - (1) The permittee shall maintain the following monthly records for wastewater processed in building B38:
 - a) The identification of each VOC-containing material present in the wastewater;
 - b) a copy of the Safety Data Sheet (SDS) for each VOC-containing material present in the wastewater;
 - c) the amount of wastewater processed;
 - d) the twelve month total rolling total of wastewater processed.
- D. The product of the true vapor pressure and the vapor molecular weight of wastewater processed in building B38 shall be less than $3.5 \text{ psia} \cdot \text{lb} \cdot \text{lb} \cdot \text{mol}$.
 - (1) The facility shall maintain a list of dry product and liquid product facilities that send wastewater to B38 for treatment.
 - (2) Monthly, the owner or operator shall collect a representative sample of wastewater from one of the dry product or liquid product facilities. The company shall choose the facility based on the list developed in D.1. The company shall start from the top of the list and sample the next available facility so that all plants are tested as equally as possible. The company shall record which plant was tested and the date.
 - (3) The owner or operator shall collect a representative sample of the wastewater and analyze it to determine the constituent and total VOC concentrations. The facility shall use IDNR approved method to determine the concentrations. Wastewater samples shall be collected at the end of the process and using sampling procedures which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity. The facility shall document the methods used to sample and analyze the wastewater.
 - (4) The owner or operator shall use the constituent and total VOC concentrations obtained above to determine the VOC vapor pressure and vapor molecular weight

and the product of the true vapor pressure and the vapor molecular weight of the wastewater processed in building B38 and record the results. The facility shall document the methods used to make this determination.

NSPS and NESHAP Requirements

- E. The owner or operator shall meet all applicable requirements of National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing-Subpart FFFF.
 - (1) The owner or operator shall meet all of the applicable notification, reporting, and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2515, §63.2520, and §63.2525.
- F. Any wastewater streams that are part of the miscellaneous organic chemical process unit shall operate as a Group 2 Wastewater Streams, as specified in 40 CFR Part 63 Subpart FFFF, 63.2485 and the requirements referenced therein.
 - (1) The owner or operator shall meet all of the applicable reporting and recordkeeping requirements specified in 40 CFR Part 63 Subpart FFFF, §63.2520, and §63.2525, and the requirements referenced therein, including applicable requirements specified in 40 CFR Part 63 Subpart G in §63.146(b)(1), and §63.147(b)(8).
- G. The facility shall analyze all changes in the process, formulations, or equipment and determine if there is a change in applicability for any NSPS or NESHAP subparts for the building B38 wastewater plant.
 - (1) The facility shall document all process changes and the results of all NSPS or NESHAP determinations made for these changes.

Authority for Requirement: DNR Construction Permit 19-A-354

NSPS and NESHAP Applicability

This emission point is subject to the requirements of 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants; Miscellaneous Organic Chemical Manufacturing.

Authority for Requirement: DNR Construction Permit 19-A-354
40 CFR 63 Subpart FFFF
567 IAC 23.1(4)"cf"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 24

Stack Opening, (inches, dia.): 10

Exhaust Flow Rate (scfm): 400

Exhaust Temperature (°F): 74

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 19-A-354

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Spray Booth

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): Spray Booth

Emissions Control Equipment ID Number: CE- Spray Booth

Emissions Control Equipment Description: Dry Filters

Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: Spray Booth

Emission Unit Description: Paint Spray Booth

Raw Material/Fuel: Paint

Rated Capacity: 1.5 gal/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 19-A-094

- ⁽¹⁾ An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.01 gr/dscf

Authority for Requirement: 567 IAC 23.4(13)
DNR Construction Permit 19-A-094

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The VOC content of any VOC containing material used in this paint booth shall not exceed 7.5 pounds per gallon.

- B. The amount of VOC containing material used in this paint booth shall not exceed 600 gallons in any rolling 12- month period.
- C. The amount of spray coating material, as defined in §63.3981, that contain hazardous air pollutants (HAP) used in the surface coating of miscellaneous metal parts and products as defined in paragraph §63.3881(a) at this facility shall not exceed 250 gallons in any rolling 12- month period.
- D. The amount of spray coating material, as defined in §63.4581, that contain hazardous air pollutants (HAP) used in the surface coating of plastic parts and products as defined in paragraph §63.4481(a) at this facility shall not exceed 100 gallons in any rolling 12- month period.
- E. The owner or operator shall maintain manufacturer and vendor provided information (Safety Data Sheets (SDS), Material Safety Data Sheet (MSDS), technical data sheets, etc.) for all materials used in this paint booth.
- F. The owner or operator shall maintain a log listing each material used in this paint booth along with the respective VOC content, in pounds per gallon.
- G. The owner or operator shall maintain the following monthly records:
 - (1) The amount of VOC containing material used in this paint booth, in gallons;
 - (2) The rolling 12-month total of the amount of VOC containing material used in this paint booth, in gallons;
 - (3) The amount of spray coating material, as defined in §63.3981, that contain hazardous air pollutants (HAP) used in the surface coating of miscellaneous metal parts and products as defined in paragraph §63.3881(a), at the facility in gallons;
 - (4) The rolling 12-month total of spray coating material, as defined in §63.3981, that contain hazardous air pollutants (HAP) used in the surface coating of miscellaneous metal parts and products as defined in paragraph §63.3881(a), at the facility in gallons.
 - (5) The amount of spray coating material, as defined in §63.4581, that contain hazardous air pollutants (HAP) used in the surface coating of plastic parts and products as defined in paragraph §63.4481(a), at the facility in gallons;
 - (6) The rolling 12-month total of spray coating material, as defined in §63.4581, that contain hazardous air pollutants (HAP) used in the surface coating of plastic parts and products as defined in paragraph §63.4481(a), at the facility in gallons.
- H. All process and control equipment for this process shall be operated and maintained according to manufacturer specifications and maintenance schedule.
 - (1) The owner or operator shall keep a record of all inspections and maintenance and any actions resulting from the inspections and maintenance for all the control and process equipment for this process.
- I. The owner or operator shall operate the control equipment at all times when emissions are vented to them.

Authority for Requirement: DNR Construction Permit 19-A-094

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 4.25
- Stack Opening, (inches, dia.): 33 x 33
- Exhaust Flow Rate (scfm): 1,600
- Exhaust Temperature (°F): 70
- Discharge Style: Horizontal
- Authority for Requirement: DNR Construction Permit 19-A-094

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Paint Booth Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Boilers

Associated Equipment

Emission Point ID	Emission Unit Description (EU ID)	Control Equipment	Maximum Rated Capacity (E6BTU/hr)
Boil 1	Boil 1	None	7.3
Boil 2	Boil 2	None	1.7
Boil 3	Boil 3	None	6.3
Boil 4	Boil 4	None	7.3
Boil 5	Boil 5	None	2.6
Boil 6	Boil 6	None	3.75
Boil 7	Boil 7	None	6.3
Boil 8	Boil 8	None	4.2
Boil 9	Boil 9	None	7.3
Boil 10	Boil 10	None	4.2
Boil 11	Boil 11	None	0.53
Boil 12	Boil 12	None	0.42
Boil 13	Boil 13	None	0.53
Boil 14	Boil 14	None	0.53
Boil 15	Boil 15	None	2.0
Boil 16	Boil 16	None	6.3

Raw Material/Fuel: Natural Gas

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm

Authority for Requirement: 567 IAC 23.3(3)"e"

NSPS and NESHAP Applicability

This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63 Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: AA

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): AA

Emission Unit vented through this Emission Point: AA
Emission Unit Description: Anhydrous Ammonia Storage Tanks
Raw Material/Fuel: Anhydrous Ammonia
Rated Capacity: 150,000 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

None at this time.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

None at this time.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: GEN 1

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): GEN 1

Emission Unit vented through this Emission Point: GEN 1
Emission Unit Description: 115 HP Emergency Generator
Raw Material/Fuel: Natural Gas
Rated Capacity: 115 HP

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/scf
Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: NO_x
Emission Limit(s): 10 g/HP-hr
Authority for Requirement: 40 CFR 60.4233(e)

Pollutant: CO
Emission Limit(s): 387 g/HP-hr
Authority for Requirement: 40 CFR 60.4233(e)"

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 500 ppm
Authority for Requirement: 567 IAC 23.3(3)"e"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NESHAP:

The emergency engine is subject to 40 CFR Part 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(2)(ii) this spark ignition emergency engine,

located at a major source, is a new stationary RICE as it was constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(6), this emergency engine must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ for spark ignition engines. No further requirements apply for this engine under subpart ZZZZ.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

NSPS Subpart JJJJ Requirements

For Engines \geq 100 hp, constructed after 6/12/2006 and manufactured on or after 1/1/2009: Emergency, SI, All Fuel (except Gasoline & Rich Burn LPG)

Emission Standards:

(40 CFR 60.4233(e) and Table 1 to Subpart JJJJ)

Maximum Engine Power	Manufacture Date	Emission Standards ⁽¹⁾						
		g/HP-hr				ppmvd at 15% O ₂		
		NO _x	HC + NO _x	CO ⁽²⁾	VOC ⁽³⁾	NO _x	CO	VOC
25 < HP < 130	1/1/2009+	N/A	10	387	N/A	N/A	N/A	N/A

⁽¹⁾ Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

⁽²⁾ See rule for alternative CO certification standards for engines \geq 100 hp and manufactured prior to 1/1/2011.

⁽³⁾ Formaldehyde emissions are not included.

Compliance Demonstrations:

1. You must demonstrate compliance with the emission standards according to one of following methods (40 CFR 60.4243(b)):

- a) Purchasing a certified engine that complies with the emission standards, or
- b) Purchasing a non-certified engine and demonstrating compliance with the emission standards. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct performance tests to demonstrate compliance in accordance with 40 CFR 60.4244. Owners and operators are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 4243(b) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
25 < HP \leq 500	Required	Not required

2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer's written instructions must keep records of required maintenance. 40 CFR 60.4243(b)(1), 4243(a) and 4245(a)(2).

3. Owners and operators of natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, a performance test must be conducted to demonstrate compliance with the emission standards. 40 CFR 60.4243(e).
4. If you are an owner or operator of engine ≤ 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing, but you are not required to conduct subsequent performance testing unless the engine is rebuilt or undergoes major repair or maintenance. 40 CFR 60.4243(f).
5. Owners and operators of certified engines must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).
6. Owners and operators of non-certified engines or certified engines operating in a non-certified manner must keep documentation that these engines meet the applicable emission standards. 40 CFR 60.4245(a)(4).

Operating and Recordkeeping Requirements (40 CFR 4243(d))

1. Owners and operators of the following emergency SI engines that do not meet the applicable standards for non-emergency engines must install a non-resettable hour meter. 40 CFR 60.4237.

Maximum Engine Power	Engine Was Built On Or After
HP < 130	7/1/2008

2. There is no time limit on the use of the emergency engine in emergency situations.
3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing.
5. Owners and operators of an emergency engine must keep records of all operation of the engine. The owner must record the date and time of operation of the engine and the reason the engine was in operation.
6. Owners and operators of the following emergency SI that does not meet the applicable standards for a non-emergency engine must keep the following records. 40 CFR 60.4245(b).

Maximum Engine Power	Manufactured On Or After	Recordkeeping Requirement
25 < HP < 130	7/1/2008	Hours of operation recorded through a non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: GEN 2

Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): GEN 2

Emission Unit vented through this Emission Point: GEN 2

Emission Unit Description: 82 HP Emergency Generator

Raw Material/Fuel: Natural Gas

Rated Capacity: 82 HP

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm

Authority for Requirement: 567 IAC 23.3(3)"e"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements

NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

According to 40 CFR 63.6590(a)(1)(ii) this spark ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of subpart ZZZZ that are applicable by October 19, 2013.

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)

2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permitting & Standards Branch, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
 - a. The date, place and time of sampling or measurements
 - b. The date the analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses; and
 - f. The operating conditions as existing at the time of sampling or measurement.
 - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
 - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
 - b. Compliance test methods specified in 567 Chapter 25; or
 - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a. Any monitoring or testing methods provided in these rules; or
 - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the

incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
 - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
 - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
 - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
 - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
 - e. The changes comply with all applicable requirements.
 - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
 - i. A brief description of the change within the permitted facility,
 - ii. The date on which the change will occur,
 - iii. Any change in emission as a result of that change,
 - iv. The pollutants emitted subject to the emissions trade
 - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
 - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
 - vii. Any permit term or condition no longer applicable as a result of the change.
2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

- a. An administrative permit amendment is a permit revision that does any of the following:
 - i. Correct typographical errors
 - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - iii. Require more frequent monitoring or reporting by the permittee; or
 - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
- b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Title V Permit Modification.

- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
 - i. Do not violate any applicable requirement;
 - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
 - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
 - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
 - v. Are not modifications under any provision of Title I of the Act; and
 - vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
 - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
 - ii. The permittee's suggested draft permit;
 - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.111-567 IAC 22.113

G19. Duty to Obtain Construction Permits

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (*567 IAC 23.1(3)"a"*); training fires and controlled burning of a demolished building (*567 IAC 23.2*).

G21. Open Burning

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
 4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
 5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
 - a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
 - b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
 - c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*
3. A permit shall be reopened and revised under any of the following circumstances:
 - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

- b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
- c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
- d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
- e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- a. Such applicable requirements are included and are specifically identified in the permit; or
- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
- d. The ability of the department or the administrator to obtain information from the facility pursuant to the emission limit section 14 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to

other circumstances, and the remainder of this permit, shall not be affected by such finding. 567 IAC 22.108 (8)

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. 567 IAC 22.108 (9)"d"

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). 567 IAC 22.111 (1)"d"

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions.
567 IAC 22.3(3)"c"

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-9526

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Iowa Compliance Officer
Air Branch
Enforcement and Compliance Assurance Division
U.S. EPA Region 7
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-8200

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1

1101 Commercial Court, Suite 10
Manchester, IA 52057
(563) 927-2640

Field Office 2

2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3

1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4

1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5

Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-0268

Field Office 6

1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Polk County Public Works Dept.

Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health

Air Quality Branch
1020 6th St SE
Cedar Rapids, IA 52401
(319) 892-6000