Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Valero Renewable Fuels Company, LLC d/b/a Valero Lakota Plant
Location: 1660 428th Street, Lakota, IA 50451
Air Quality Operating Permit Number: 10-TV-001R2
Expiration Date: 09/02/2026

Permit Renewal Application Deadline: 03/02/2026

EIQ Number: 92-6852
Facility File Number: 55-09-003

Responsible Official
Name: Kirk Jarvis
Title: Plant Manager
Mailing Address: 1660 428th Street, Lakota, IA 50451
Phone #: (515) 886-2222

Permit Contact Person for the Facility
Name: Michael Gustafson
Title: HSE Manager
Mailing Address: 1660 428th Street, Lakota, IA 50451
Phone #: (515) 886-2615
Mike.Gustafson@valero.com

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

_____

Marnie Stein, Supervisor of Air Operating Permits Section Date

Table of Contents

Abbreviations

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
CE .....control equipment
CEM.....continuous emission monitor
^{o}F .....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
NESHAP .....National Emission Standards for Hazardous Air Pollutants
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
PM_{10} .....particulate matter ten microns or less in diameter
SO_2 .....sulfur dioxide
NO_x .....nitrogen oxides
VOC .....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Valero Renewable Fuels Company, LLC d/b/a Valero Lakota Plant Permit Number: 10-TV-001R2

Facility Description: Fuel Grade Ethanol Production (SIC 2869)

Equipment List

Emission Point	Emission Unit	Emission Unit Description	DNR Construction Permit #
S50	F50	Truck and Rail Loadout	02-A-832-S7
F60	F60	DDGS Auxiliary Loadout	05-A-802-S1
F90	F90	VOC Emissions from Equipment Leaks	05-A-803-S2
F100	F100	Truck Traffic	05-A-805-S7
S10	P10	Cook Tube	01-A-521-S14
		Flash Tank	
		Beer Column	
		Side Stripper	
		Rectifier Column	
		190 Proof Condenser	
		Molecular Sieve Bottles Train #1 (#1 - #3)	
		200 Proof Condenser	
		Centrifuges	
		Evaporators	
		Molecular Sieve Bottles Train #1 (#4 - #6)	
		Slurry Tank #1	
		Yeast Tank #1	
		Regen Tank (Train #1)	
		Centrate Tank #1	
		CIP Tank Train #1	
	P10a	DDG Dryer A	
	P10b	DDG Dryer B	
	B10	Thermal Oxidizer/Heat Recovery Boiler	
	P10d	Centrate Tank #2 (secondary)	
		Centrifuge Drag Conveyor Train #2 (secondary)	
		Slurry Tank #2 (secondary)	
		CIP Tank Train #2 (secondary)	
		Yeast Tank #2 (secondary)	
		SMT Tank (secondary)	
S11b	S11b	Natural Gas Fired Boiler	04-A-990-S3
S40c	P40	Fermentation Process	11-A-179-S6
	Train 1	Slurry Blender	

Emission Point	Emission Unit	Emission Unit Description	DNR Construction Permit #
	Fermenter #1	Fermenter #1	
	Fermenter #2	Fermenter #2	
	Fermenter #3	Fermenter #3	
	Fermenter #4	Fermenter #4	
	Fermenter #5	Fermenter #5	
	Fermenter #6	Fermenter #6	
	Fermenter #7	Fermenter #7	
	Beer Well	Beer Well	
	V-2476	Regen Tank	
	P-2464	Vacuum Receiver Tank	
SFX105	P20	Grain Receiving/Grain Handling	04-A-991-S1
SFX110	P20	Grain Receiving/Grain Handling	02-A-825-S3
SFX120	P20	Grain Receiving/Grain Handling	02-A-826-S2
SFX-1510	CD-1510	Bin T-131 & Bin T-141 Fill Conveyor #1	16-A-187-S1
SFX-135	CD-135	Elevator Leg	16-A-189-S1
	CD-1560	Bin T-140 Reclaim Screw Feeder	
	CD-1562	Bin T-140 Reclaim Drag Conveyor	
SFX-1515	CD-1515	Bin T-131 & Bin T-141 Fill Conveyor #2	16-A-188-S1
SFX146	P20	Grain Receiving/Grain Handling	04-A-995-S2
SFX147	P20	Grain Receiving/Grain Handling	02-A-827-S2
SFX165	P30	Milling/Hammermill Corn Day Bin	01-A-523-S3
SFX190	P30	Train #1 Hammermill #1	02-A-828-S3
SFX191	P30	Train #1 Hammermill #2	02-A-829-S4
SFX150	P30b	Hammermill	04-A-996-S2
SFX151	P30b	Train #2 Hammermill #1	04-A-997-S3
SFX152	P30b	Train #2 Hammermill #2	04-A-998-S3
SFX810	P60	DDGS Loadout	02-A-830-S3
SFX825	P60	DDGS Loadout	02-A-831-S2
S70	P70	Train #1 DDGS Cooling Cyclone	01-A-526-S14
S70b	P70b	Train #2 DDGS Cooling Cyclone	05-A-227-S10
S80a	P80a	Cooling Tower	04-A-1003-S1
S80b	P80b	Cooling Tower	04-A-1004-S1
T61	T61	Final Product Storage Tank	01-A-527-S1
T62	T62	Final Product Storage Tank	01-A-528-S1
T63	T63	200 Proof Ethanol Day Tank	01-A-529-S1

Emission Point	Emission Unit	Emission Unit Description	DNR Construction Permit #
T64	T64	Denaturant or Intermediate Ethanol Storage Tank	01-A-530-S2
T65	T65	190 Proof Ethanol Day Tank	01-A-531-S2
T66	T66	Final Product Storage Tank	04-A-1005-S2
SFX130	T130	Grain Silo	03-A-1372-S4
SFX131	T131	Grain Silo	04-A-1001-S2
SFX140	T140	Grain Silo	04-A-340-S2
SFX141	T141	Grain Silo	04-A-1002-S2
G1916	G1916	Emergency Generator	Not Required
P1916	P1916	Emergency Fire Pump	Not Required
S12	S12	Natural Gas Fired Boiler	15-A-321
S10c	P10c	DDGS Dryer 2	17-A-176-S1
	P10d	Distillation Process	
		Cook Tube	
		Flash Tank	
		Beer Column	
		Side Stripper	
		Rectifier Column	
		190 Proof Condenser	
		Molecular Sieve Bottles Train #2	
		Centrifuges	
		Thin Stillaqe Evaporators	
	P10	Molecular Sieve Bottles Train #3 and Regen Tank	
		Slurry Tank 1	
		Slurry Tank #1 (secondary)	
		Yeast Tank #1 (secondary)	
		Regen Tank (Train #1) (secondary)	
		Centrate Tank #1(secondary)	
		CIP Tank Train #1 (secondary)	
	P10d	Centrate Tank #2	
		Centrifuge Drag Conveyor Train #2	
		Slurry Tank #2	
		CIP Tank Train #2	
		Yeast Tank #2	
		SMT Tank	
GT01	GT01	Gasoline Storage Tank	N/A

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
T-868	Corrosion Inhibitor Tank
T-500	Syrup Storage Tank
T-620	Syrup Storage Tank
T-600	Thin Stillage Storage Tank
T-2500	Whole Stillage Storage Tank
DT1	Diesel Tank
DT2	Diesel Tank
DT3	Diesel Tank
DT4	Diesel Tank
DT5	Diesel Tank
V-985	Sulfuric Acid Tank
PW1	Parts Washer
T-621	Corn Oil Tank #1 (<1mmHG)
T-622	Corn Oil Tank #2 (<1mmHG)
L-EIA03	Corn Oil Truck Loadout
TSP1	Temporary Grain Storage Pile 1
TSP2	Temporary Grain Storage Pile 2
TSP3	Temporary Grain Storage Pile 3
DSB	DDGS Storage Building
CWT1	Cook Water Tank
CWT2	Cook Water Tank

II. Plant-Wide Conditions

Facility Name: Valero Renewable Fuels Company, LLC d/b/a Valero Lakota Plant
Permit Number: 10-TV-001R2

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

Permit Duration

The term of this permit is: Five years from permit issuance
Commencing on: 09/03/2021
Ending on: 09/02/2026

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 (SO_2): 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 - 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, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. 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 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 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, fertilizers 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.

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

II. Emission Point-Specific Conditions

Facility Name: Valero Renewable Fuels Company, LLC d/b/a Valero Lakota Plant
Permit Number: 10-TV-001R2

Emission Point ID Number: EP-S10

Associated Equipment

Emission Unit	Raw Material	Capacity	Control Equipment
DDGS Dryer A	Natural Gas	40 MMBtu/hr	Thermal Oxidizer (C10)
DDGS Dryer B	Natural Gas	40 MMBtu/hr	
Thermal Oxidizer (CE C10) / Heat Recovery Steam Generator (EU B10)	Natural Gas	125 MMBtu/hr	None (Emission unit is located post control)
Distillation Process (EU P10)			Thermal Oxidizer (C10)
Cook Tube	Mash	725 gpm	
Flash Tank	Mash	2000 gallons	
Beer Column	Beer	725 gpm	
Side Stripper	Beer	100 gpm	
Rectifier Column	Ethanol	160 gpm	
190 Proof Condenser	Ethanol	313 gpm	
Molecular Sieve Bottles Train #1 (#1 - #3)	Ethanol	105 gpm	
200 Proof Condenser	Ethanol	5 gpm	
Centrifuges	Centrifuge Feed	700 gpm	
Evaporators	Thin Stillage	250 gpm	
Molecular Sieve Bottles Train #1 (#4 - #6)	Ethanol	120 gpm	From Train 1 Centrate Blower (B-550) Primary control using Thermal Oxidizer (C10) Optional, Secondary control using Regenerative Thermal Oxidizer, RTO (C10c)
Slurry Tank #1	Mash	17,500 gallons	
Yeast Tank #1	Yeast	17,500 gallons	
Regen Tank (Train #1)	Beer	600 gallons	
Centrate Tank #1	Centrifuge Feed	1,000 gallons	
CIP Tank Train #1	Ethanol	17,500 gallons	
Centrate Tank #2 (secondary)	Centrifuge Feed	730 gpm	From Train 2 Centrate Blower (B-2550) Primary control using Regenerative Thermal Oxidizer (C10c) Optional, Secondary control using Thermal Oxidizer (C10)
Centrifuge Drag Conveyor Train #2 (secondary)	Centrifuge Feed	730 gpm	
Slurry Tank #2 (secondary)	Mash	20,055 gallons	Primary control using Regenerative Thermal Oxidizer (C10c) Optional, Secondary control using Thermal Oxidizer (C10)
CIP Tank Train #2 (secondary)	Ethanol	20,055 gallons	

Yeast Tank #2 (secondary)	Yeast	20,055 gallons	
SMT Tank (secondary)	Mash	14,000 gallons	From SMT Blower Primary control using RTO (C10c) Optional, Secondary control using Thermal Oxidizer (C10)

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 01-A-521-S14
567 IAC 23.3(2) "d"

(1) An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 5.64 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-521-S14

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 5.64 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-521-S14
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 6.23 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 01-A-521-S14
567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 14.95 lb/hr; 0.1 lb/MMBtu
Authority for Requirement: DNR Construction Permit 01-A-521-S14
40 CFR 60 Subpart Db

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 5.32 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-521-S14

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 9.36 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-521-S14

Pollutant: Acetaldehyde
Emission Limit(s): 0.35 lb/hr[(2)]
Authority for Requirement: DNR Construction Permit 01-A-521-S14

Pollutant: Individual HAPs
Emission Limit(s): 0.75 lb/hr[(2)]
Authority for Requirement: DNR Construction Permit 01-A-521-S14

Pollutant: Total HAP
Emission Limit(s): 1.52 lb/hr[(2)]
Authority for Requirement: DNR Construction Permit 01-A-521-S14

[(2)] Emission limit listed is the sum of the emission rates for EP S10 and EP S70, combined.

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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.

A. The owner or operator shall follow the applicable standards of NSPS 40 CFR Part 60 §60.40b to §60.49b Subpart Db.

B. The thermal oxidizer shall maintain a temperature (3-hour average) during operation no less than 50 degrees Fahrenheit below the average temperature of the oxidizer recorded during the most recent performance test which demonstrated compliance with the emission limits.
   i. The thermal oxidizer shall be operated at all times DDGS dryers A and B and the distillation equipment listed in Permit Condition 2 as controlled only by the thermal oxidizer, are in operation
   ii. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the thermal oxidizer, TO. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per a written facility-specific operation and maintenance plan.
   iii. The owner or operator shall keep hourly records of the operating temperature of the thermal oxidizer, and record all three hour periods (during actual operation) during which the average temperature of the oxidizer is more than 50 degrees Fahrenheit (50^{o}F) below the average temperature of the oxidizer during most recent performance test which demonstrated compliance with the emission limits.
   iv. This requirement shall not apply on the days the TO, or the equipment the TO controls, are not in operation.

C. The thermal oxidizer/heat recovery steam generator shall combust only natural gas, propane and/or process off-gasses. The propane usage in the thermal oxidizer shall not exceed 10,000,000 gallons per rolling 12-month period.

i. The owner/operator shall record and maintain monthly records of amount of propane fuel used in the thermal oxidizer; and,
ii. The owner/operator shall calculate and record the rolling 12-month total amount of propane fuel used, in gallons, in the thermal oxidizer.

D. The dryers shall combust only natural gas and/or process off-gasses.

E. The owner or operator shall record and maintain records of the amounts of each fuel combusted during each day, and calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month, as required in 40 CFR 60.49b(d) for the thermal oxidizer/heat recovery steam generator. The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

F. The owner or operator shall keep records of the frequency and amount of time the thermal oxidizer malfunctions and estimate the emissions emitted during these malfunctions.

G. The owner or operator shall maintain records of the following information for each steam generating unit operating day, as required in 40 CFR 60.49(g). This information shall also be submitted in a reports, as required in 40 CFR 60.49(i).
i. Calendar date.
ii. Average hourly nitrogen oxides emission (as NO_2) rates measured or predicted.
iii. 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
iv. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the emission standard, with the reason for such excess emissions as well as a description of corrective actions taken.
v. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
vi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
vii. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
viii. Identification of the times when the pollutant concentrations exceeded the full span of the continuous emission monitoring system (CEMS).
ix. Description of any modifications to the continuous emission monitoring system that could affect the ability of the CEMS to comply with Performance Specification 2 or
x. Results of daily CEMS drift test and quarterly accuracy assessments as required under 40 CFR Appendix F, Procedure 1.

H. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

I. The owner or operator shall conduct an inspection of the emission units and the associated control equipment, at a minimum of once per year and correct/repair any issues discovered during the inspection. The owner or operator shall maintain a log of all inspections and maintenance activities performed on the emission units and the associated control equipment. This log shall include, but is not necessarily limited to:
   i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
   ii. Any issues identified during the inspection and the date each issue was resolved;
   iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and,
   iv. Identification of the staff person performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 01-A-521-S14

Continuous Emission Monitoring

The owner or operator shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring Nitrogen Oxide emissions discharged to the atmosphere. The CEM shall be operated and data collected as required under 40 CFR 60.48b(c), (d), (e) and (f), or use an approved alternative monitoring plan. The Nitrogen Oxide CEM is required to install a flow rate sensor per the requirements of 40 CFR Part 60 Appendix B: Performance Specification 6.

To account for the mass of Nitrogen Oxide (NOx) emitted during periods of the NOx mass emission monitor CEMS (NOx analyzer and TO stack airflow monitor) downtime, the owner or operator shall substitute data for each hour of missing data as follows:

A. Determine the NOx mass emissions (in pounds) during each hour of NOx mass emission monitor downtime by substituting the NOx mass value (in pounds) from the last valid hour (as defined in 40CFR60.13 (h)(2)) recorded from the NOx mass monitor CEMS for each consecutive hour of monitor downtime until a new valid hour of NOx mass monitor data is obtained .
B. If the NOx mass monitor CEMS downtime will result in a quarterly data availability of less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.
C. The substituted data shall be used for comparison with the NOx 30-day rolling average permit limit and when calculating total NOx emissions from this source; however, alternative methods of determining emissions during specific monitor downtime events may be employed if approved by the Department.

Authority for Requirement: DNR Construction Permit 01-A-521-S14

NSPS and NESHAP Applicability
The thermal oxidizer/heat recovery steam generator is subject to Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40b through 40 CFR 60.49b) and Subpart A (General Provisions, 40 CFR 60.1 through 40 CFR 60.19) of the New Source Performance Standards (NSPS).
Authority for Requirement: DNR Construction Permit 01-A-521-S14

Emission Point Characteristics
The emission point shall conform to the specifications listed below.
Stack Height, (ft, from the ground): 125
Stack Opening, (inches, dia.): 86.6
Exhaust Flow Rate (scfm): 78,175
Exhaust Temperature (°F): 330
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 01-A-521-S14

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

Stack Testing and Continuous Emissions Monitoring:

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
NOx	CEMS(1)	Continuous	NA	40 CFR 60, Appendix A, Method 7E
VOC	Stack Test(3)	Once every 12 months	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Acetaldehyde	Stack Test(4)(5)	Once every 12 months(6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Individual HAP(2)	Stack Test(4)(5)	Once every 12 months(6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Total HAP	Stack Test(4)(5)	Once every 12 months(6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320

(1) Stack testing is not required for NO_X as a CEMS is required (Permit Condition 6).
(2) Acrolein, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, formaldehyde and methanol, any HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario.
(3) The facility shall either conduct representative annual stack testing for the DDGS Dryers (EP S10 and EP S10c) or conduct annual stack testing on both emission points (EP S10 and EP S10c).

In both cases, the required testing shall have a minimum of six (6) months between each test. Should the owner or operator decide to conduct representative compliance testing, the compliance status determined from that compliance test shall be considered representative for the other emission point. The owner or operator shall alternate the testing of these emission sources (EP S10 and EP S10c), so that each point will be tested once every other calendar year (i.e., alternate years for conducting compliance tests).

(4) The stack testing for these emission units venting through EP S70 shall be conducted simultaneously with the stack testing for the emission units venting through EP S10. The tested emission rates shall be summed together to determine compliance with the applicable emission limit in Permit Condition 1.

(5) The facility shall either conduct representative annual stack testing for the Train #1 sources (EP S70 and EP S10) and Train #2 sources (EP S70b and EP S10c) or conduct annual stack testing on the Train #1 sources and Train #2 sources. In both cases, the required testing shall have a minimum of six (6) months between each test.

(6) Should the owner or operator decide to conduct representative compliance testing, the compliance status determined from that compliance test shall be considered representative for the other emission source group. The owner or operator shall alternate the testing of these emission sources (Train #1 and Train #2), so that each point will be tested once every other calendar year (i.e., alternate years for conducting compliance tests).

Authority for Requirement - DNR Construction Permit 01-A-521-S14

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

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)

Compliance Assurance Monitoring Plan for Valero Renewable Fuels Company, LLC dba Valero Lakota Plant

EP S10 –Train #1 Thermal Oxidizer

I. Background

A. Emissions Unit

Description: DDG Dryers A & B (EU P10a and EU P10b)
Heat Recovery Boiler (EU-B10)
Distillation Process (EU P10)

Facility: Valero Renewable Fuels Company, LLC dba ValeroLakota Plant

Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	Construction Permit # 01-A-521-S14
PM Emission Limits:	5.64 lb/hr/0.1 gr/dscf
PM_{10} Emission Limit:	5.64 lb/hr
$PM_{2.5}$ Emission Limit:	5.64 lb/hr
VOC Emission Limit or Standard:	5.32 lbs/hr VOC
HAP Emission Limits	0.35 lb/hr[(1)] Acetaldehyde; 0.75 lb/hr[(1)] Individual HAPs 1.52 lb/hr[(1)] Total HAP

[(1)] Emission limits listed are the sum of the emission rates for EP S10 and EP S70, combined.

Current Monitoring Requirements: Annual Stack Testing
Maintain hourly records of combustion chamber temperature

B. Control Technology

Thermal Oxidizer

II. Thermal Oxidizer (C10) Monitoring Approach

A. Indicator

Combustion chamber temperature and annual internal inspection will be used as indicators.

B. Measurement Approach

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1.

Table 1. Monitoring Approach

	Indicator No. 1	Indicator No. 2
I. Indicator	Combustion Chamber Temperature.	Work Practice/Inspection.
Measurement Approach	The temperature measured in the combustion chamber by the continuous temperature monitor (thermocouple).	Inspection and maintenance of the burner to ensure structural

	Indicator No. 1	Indicator No. 2
		integrity and ensure proper operation.
II. Indicator Range	An excursion is defined as 3-hour rolling average temperature readings 50° F less than the average temperature in the most recent compliance performance test.	An excursion is defined as failure to perform annual inspection or any finding that the structural integrity of the incinerator has been jeopardized and it no longer operates as designed.
Corrective Action	Each excursion triggers an inspection, corrective action, and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action, and a reporting requirement.
QIP Threshold	An accumulation of excursions below the indicator range exceeding 5 percent of operating time for a reporting period excluding periods of startup, shutdown and malfunction.	Not applicable.
III. Performance Criteria		
A. Data Representativeness	The sensor is located in the incinerator combustion chamber as an integral part of the incinerator design. The minimum tolerance of the thermocouple is ± 4 degrees F or ± 0.75% (of the temperature measured in degrees Celsius), whichever is greater.	Not applicable.
B. Verification of Operational Status	Temperatures recorded electronically.	Inspection records.
C. QA/QC Practices and Criteria	Calibrate, maintain, and operate instrumentation in accordance with manufacturer's recommendation. The accuracy of the thermocouple will be checked weekly using redundant thermocouples to verify the two temperatures agree within 30 degrees F.	Not applicable.
D. Monitoring Frequency	The combustion temperature is measured continuously.	Annual internal inspection of the burner.

	Indicator No. 1	Indicator No. 2
Data Collection Procedures	Record chamber temperature continuously on electronic media.	Record results of inspections.
Averaging period	Three (3) hour rolling average.	Not applicable.
E. Record Keeping	Maintain for a period of 2 years records of electronic media and corrective actions taken in response to excursions.	Maintain for a period of 2 years records of inspections and corrective actions taken in response to excursions.
F. Reporting	Number, duration, and cause of any excursion and the corrective action taken.	Number, duration, and cause of any excursion and the corrective action taken.
Frequency	Semiannually, if required.	Semiannually, if required.

III. Justification

A. Background

VOC emissions from Train 1 Dryers A and B (P10a and P10b) and the Distillation Process (P10) are controlled by the Train #1 Thermal Oxidizer.

B. Rationale for Selection of Performance Indicator

The control efficiency achieved by a thermal oxidizer is a function of the combustion chamber temperature. It is expected that by maintaining the operating temperature at or above the minimum chamber temperature, the required level of VOC control efficiency can be expected to be achieved.

The work practice of an annual inspection and tuning of the incinerator burner was selected because an inspection verifies equipment integrity and periodic tuning will maintain proper burner operation and efficiency.

C. Rationale for Selection of Indicator Level

The minimum operating temperature of the Train #1 thermal oxidizer is based on the average temperature recorded during the most recent VOC performance testing that demonstrated compliance with permit limits.

Emission Point ID Number: EP-S11b

Associated Equipment

Associated Emission Unit ID Numbers: EU-S11b
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: ME-M11b

Emission Unit vented through this Emission Point: EU-S11b
Emission Unit Description: Natural Gas Fired Boiler
Raw Material/Fuel: Natural Gas
Rated Capacity: 135 MMBtu/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: DNR Construction Permit 04-A-990-S3
567IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of no visible emissions will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.03 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-990-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 1.03 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-990-S3
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permit 04-A-990-S3
567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 0.1 lb/MMBtu; 7.0 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-990-S3
40 CFR 60 Subpart Db

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 1.50 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-990-S3

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 4.73 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-990-S3

Pollutant: Single HAP
Emission Limit(s): 9.4 ton/yr [(2)]
Authority for Requirement: DNR Construction Permit 04-A-990-S3

Pollutant: Total HAP
Emission Limit(s): 24.4 ton/yr [(3)]
Authority for Requirement: DNR Construction Permit 04-A-990-S3

[(2), (3)] Plant-wide limit imposed to keep the facility synthetic minor for any applicable NESHAP.

Operational Limits & Requirements

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

Operating Limits

A. The boiler shall be limited to natural gas fuel only.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner or operator shall maintain records of the following information for each steam generating unit operating day, as required in 40 CFR §60.49b(g). This information shall also be submitted in a report, as required in 40 CFR §60.49b(i).
   1. Calendar date.
   2. Average hourly nitrogen oxides emission (as NO_2) rates measured.
   3. 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
   4. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the emission standard, with the reason for such excess emissions as well as a description of corrective actions taken.
   5. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
   6. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
   7. Identification of "F" factor used for calculations, method of determination, and type

of fuel combusted.

8. Identification of the times when the pollutant concentrations exceeded the full span of the continuous monitoring system.
9. Description of any modifications to the continuous monitoring system that could affect the ability of the CEMS to comply with Performance Specification 2 or 3.
10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Appendix F, Procedure 1.

Authority for Requirement: DNR Construction Permit 04-A-990-S3

NSPS and NESHAP Applicability

This emission point is subject to NSPS Subpart A – General Provisions and Subpart Db– Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

Authority for Requirement: DNR Construction Permit 04-A-990-S3

Continuous Emission Monitoring

The owner or operator shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxide emissions discharged to the atmosphere. The CEM shall be operated and data collected as required under 40 CFR §60.48b(c), (d), (e) and (f), or use an approved alternative monitoring plan.

Authority for Requirement: DNR Construction Permit 04-A-990-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 42.75
Stack Opening, (inches, dia.): 48
Exhaust Flow Rate (scfm): 23,550
Exhaust Temperature (°F): 350
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 04-A-990-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

Continuous Emissions Monitoring:

Pollutant – NO_x
Operational Specifications – 40 CFR Part 60, Appendix B
Date of System Calibration and Quality Assurance – 08/01/2018
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60, Appendix B
Reporting & Record keeping – 40 CFR Part 60, Appendix B
Authority for Requirement – 567 IAC 25.1 (9)

Other Parameters

Pollutant – O_2
Operational Specifications – 40 CFR Part 60, Appendix B
Date of System Calibration and Quality Assurance – 08/01/2018
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60, Appendix B
Reporting & Record keeping – 40 CFR Part 60, Appendix B
Authority for Requirement – 567 IAC 25.1 (9)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

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-SFX105

Associated Equipment
Associated Emission Unit ID Numbers: EU-P20
Emissions Control Equipment ID Number: CE-FX105
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P20
Emission Unit Description: Grain Receiving/Handling System
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 04-A-991-S1
567 IAC 23.3(2) "d"

(1) An exceedance of the indicator opacity of no visible emissions will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.372 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-991-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 1.372 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-991-S1
567 IAC 23.4(7)

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

Operating Limits

A. The control equipment shall be inspected and maintained according to manufacturer's recommendations.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 04-A-991-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 27
Stack Opening, (inches, dia.): 40
Exhaust Flow Rate (scfm): 32,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 04-A-991-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX110

Associated Equipment

Associated Emission Unit ID Numbers: EU-P20
Emissions Control Equipment ID Number: CE-FX110
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P20
Emission Unit Description: Grain Receiving/Handling System
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 02-A-825-S3
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.17 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-825-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.17 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-825-S3
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 23.6
Stack Opening, (inches, dia.): 11.5
Exhaust Flow Rate (acfm): 2000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-825-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 either the

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX120

Associated Equipment

Associated Emission Unit ID Numbers: EU-P20
Emissions Control Equipment ID Number: CE-FX120
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P20
Emission Unit Description: Grain Handling
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 02-A-826-S2
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.17 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-826-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.17 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-826-S2
567 IAC 23.4(7)

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

Operating Limits

A. The control equipment shall be inspected and maintained according to manufacturer's recommendations.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 02-A-826-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 23'7"
Stack Opening: 5.6" X 8.25"
Exhaust Flow Rate (scfm): 2000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-826-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: SFX-1510

Associated Equipment

Associated Emission Unit ID Numbers: CD-1510
Emissions Control Equipment ID Number: CE-FX1510
Emissions Control Equipment Description: Cartridge Filter

Emission Unit vented through this Emission Point: CD-1510
Emission Unit Description: Bin T-131 and Bin T-141 Fill Conveyor #1
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 16-A-187-S1
567 IAC 23.3(2) "d"

[(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): 0.64 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-187-S1
567 IAC 23.4(7)

Operating Requirements with Associated Monitoring and Recordkeeping

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 inspect and maintain the control equipment according to the manufacturer's instructions and specifications.

   i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include:

      1. Weekly pressure drop;
      2. The date that any inspection and/or maintenance was performed on the control equipment;

3.Any issues identified during the inspection;
4.Any issues addressed during the maintenance activities; and
5.Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 16-A-187-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 143
Stack Opening, (inches): 15.6 X 16.9
Exhaust Flow Rate (scfm): 1500
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 16-A-187-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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: SFX-135

Emission Unit(s) and Control Equipment:

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID
CD-135	Elevator Leg	10,000 bushels/hour	Cartridge Filter CE-FX135
CD-1560	Bin T-140 Reclaim Screw Feeder	5000 bushels/hour	
CD-1562	Bin T-140 Reclaim Drag Conveyor	5000 bushels/hour	

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 16-A-189-S1
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.34 lb/hr; 0.1 gr/dscf;
Authority for Requirement: DNR Construction Permit 16-A-189-S1
567 IAC 23.4(7)

Operating Requirements with Associated Monitoring and Recordkeeping

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 inspect and maintain the control equipment according to the manufacturer's instructions and specifications.

   i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include:

      1. Weekly pressure drop;
      2. The date that any inspection and/or maintenance was performed on the control equipment;
      3. Any issues identified during the inspection;
      4. Any issues addressed during the maintenance activities; and
      5. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 16-A-189-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 25
Stack Opening, (inches): 15.6 X 16.9
Exhaust Flow Rate (scfm): 800
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 16-A-189-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 state, 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: SFX-1515

Associated Equipment

Associated Emission Unit ID Numbers: CD-1515
Emissions Control Equipment ID Number: CE-FX1515
Emissions Control Equipment Description: Cartridge Filter

Emission Unit vented through this Emission Point: CD-1515
Emission Unit Description: Bin T-131 and Bin T-141 Fill Conveyor #2
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 16-A-188-S1
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.64 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-188-S1
567 IAC 23.4(7)

Operating Requirements with Associated Monitoring and Recordkeeping
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 inspect and maintain the control equipment according to the manufacturer's instructions and specifications.

   i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include:

      1. Weekly pressure drop;
      2. The date that any inspection and/or maintenance was performed on the control equipment;
      3. Any issues identified during the inspection;

4. Any issues addressed during the maintenance activities; and
5. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 16-A-188-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 125.7
Stack Opening, (inches): 15.6 X 16.9
Exhaust Flow Rate (scfm): 1,500
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 16-A-188-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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: EP-SFX146

Associated Equipment

Associated Emission Unit ID Numbers: EU-P20
Emissions Control Equipment ID Number: CE-FX146
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P20
Emission Unit Description: Grain Handling
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 04-A-995-S2
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.069 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-995-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.069 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-995-S2
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 35
Stack Opening, (inches): 4 X 7
Exhaust Flow Rate (acfm): 800
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 04-A-995-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 either the

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX147

Associated Equipment

Associated Emission Unit ID Numbers: EU-P20
Emissions Control Equipment ID Number: CE-FX147
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P20
Emission Unit Description: Grain Handling
Raw Material/Fuel: Grain
Rated Capacity: 30,000 bu/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: DNR Construction Permit 02-A-827-S2
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.069 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-827-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.069 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-827-S2
567 IAC 23.4(7)

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

Operating Limits

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. The control equipment shall be inspected and maintained according to manufacturer's recommendations.

Authority for Requirement: DNR Construction Permit 02-A-827-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 27
Stack Opening, (inches): 5 5/8 X 7
Exhaust Flow Rate (scfm): 800
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-827-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX165

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30
Emissions Control Equipment ID Number: CE-FX165
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P30
Emission Unit Description: Milling/Hammermill: Corn Day Bin
Raw Material/Fuel: Corn
Rated Capacity: 70 ton/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: DNR Construction Permit 01-A-523-S3
567 IAC 23.3(2) "d"

(1) An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.069 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-523-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.069 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-523-S3
567 IAC 23.4(7)

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

Operating Limits

A. The control equipment shall be inspected and maintained according to manufacturer's recommendations.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 01-A-523-S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 73'8"
Stack Opening, (inches): 5 5/8 X 7
Exhaust Flow Rate (scfm): 800
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 01-A-523-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX190

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30
Emissions Control Equipment ID Number: CE-FX190
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P30
Emission Unit Description: Train #1 Hammermill #1
Raw Material/Fuel: Corn
Rated Capacity: 42 ton/hr,
Combined max throughput capacity for the 4 hammermills: 157.5 ton/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: DNR Construction Permit 02-A-828-S3
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.386 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-828-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.386 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-828-S3
567 IAC 23.4(7)

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

Operating Limits

A. Maintain Fabric Filter according to manufacturer specifications and maintenance schedule.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Fabric Filter.

Authority for Requirement: DNR Construction Permit 02-A-828-S3

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32.08
Stack Opening, (inches): 12.375 X 15
Exhaust Flow Rate (scfm): 4500
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed

The following equipment is vented through this stack:

Emission Unit	Raw Material	Capacity	Control Equipment
Train #1 Milling (EU P30)			
Train #1 Hammermill #1	Corn	42 tons per hour	Baghouse (SFX-190)
Train #1 Mill Hopper Screw Conveyor	Corn	112 tons per hour	Baghouse (SFX-190) and Baghouse (SFX-191)
Train #1 Mill Leg Elevator	Corn	112 tons per hour	
Train #1 Milled Corn Drag Conveyor	Corn	112 tons per hour	

Authority for Requirement: DNR Construction Permit 02-A-828-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX191

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30
Emissions Control Equipment ID Number: CE-FX191
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P30
Emission Unit Description: Train #1 Hammermill #2
Raw Material/Fuel: Corn
Rated Capacity: 36.75 ton/hr
Combined max throughput capacity for the 4 hammermills: 157.5 ton/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: DNR Construction Permit 02-A-829-S4
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.386 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-829-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.386 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-829-S4
567 IAC 23.4(7)

Operational Limits & Requirements

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

Operating Limits

A. Maintain Fabric Filter according to manufacturer specifications and maintenance schedule.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Fabric Filter.

Authority for Requirement: DNR Construction Permit 02-A-829-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 24.75
Stack Opening, (inches, dia.): 19.5
Exhaust Flow Rate (acfm): 4500
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed

The following equipment is vented through this stack:

Emission Unit	Raw Material	Capacity	Control Equipment
Train #1 Milling (EU P30)			
Train #1 Hammermill #2	Corn	36.75 tons per hour	Baghouse (SFX-191)
Train #1 Mill Hopper Screw Conveyor	Corn	112 tons per hour	Baghouse (SFX-190) and Baghouse (SFX-191)
Train #1 Mill Leg Elevator	Corn	112 tons per hour	
Train #1 Milled Corn Drag Conveyor	Corn	112 tons per hour	

Authority for Requirement: DNR Construction Permit 02-A-829-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX150

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30b
Emissions Control Equipment ID Number: CE-FX150
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P30b
Emission Unit Description: Hammermill
Raw Material/Fuel: Corn
Rated Capacity: 70 ton/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: DNR Construction Permit 04-A-996-S2
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.068 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-996-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.068 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-996-S2
567 IAC 23.4(7)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 80
Stack Opening, (inches): 8 X 8
Exhaust Flow Rate (scfm): 800
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 04-A-996-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX151

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30b
Emissions Control Equipment ID Number: CE-FX151
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P30b
Emission Unit Description: Train #2 Hammermill #1
Raw Material/Fuel: Corn
Rated Capacity: 42 ton/hr
Combined max throughput capacity for the 4 hammermills: 157.5 ton/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: DNR Construction Permit 04-A-997-S3
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.39 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-997-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.39 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-997-S3
567 IAC 23.4(7)

Operational Limits & Requirements

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

Operating Limits

A. Maintain Fabric Filter according to manufacturer specifications and maintenance schedule.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Fabric Filter.

Authority for Requirement: DNR Construction Permit 04-A-997-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37
Stack Opening, (inches): 12.375×15
Exhaust Flow Rate (scfm): 4500
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal

The following equipment is vented through this stack:

Emission Unit	Raw Material	Capacity	Control Equipment
Train #2 Milling (EU P30b)			
Train #2 Hammermill #1	Corn	42 tons per hour	Baghouse (SFX-151)
Train #2 Mill Hopper Screw Conveyor	Corn	112 tons per hour	Baghouse (SFX-151) and Baghouse (SFX-152)
Train #2 Mill Leg Elevator	Corn	112 tons per hour	
Train #2 Milled Corn Drag Conveyor	Corn	112 tons per hour	

Authority for Requirement: DNR Construction Permit 04-A-997-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX152

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30b
Emissions Control Equipment ID Number: CE-FX152
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P30b
Emission Unit Description: Hammermill
Raw Material/Fuel: Corn
Rated Capacity: 36.75 ton/hr
Combined max throughput capacity for the 4 hammermills: 157.5 ton/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: DNR Construction Permit 04-A-998-S3
567 IAC 23.3(2) "d"

(1) An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.39 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-998-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.39 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-998-S3
567 IAC 23.4(7)

Operational Limits & Requirements

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

Operating Limits

A. Maintain Fabric Filter according to manufacturer specifications and maintenance schedule.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Fabric Filter.

Authority for Requirement: DNR Construction Permit 04-A-998-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37
Stack Opening, (inches, dia.): 12.375 X 15
Exhaust Flow Rate (scfm): 4500
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal

The following equipment is vented through this stack:

Emission Unit	Raw Material	Capacity	Control Equipment
Train #2 Milling (EU P30b)			
Train #2 Hammermill #1	Corn	42 tons per hour	Baghouse (SFX-151)
Train #2 Mill Hopper Screw Conveyor	Corn	112 tons per hour	Baghouse (SFX-151) and Baghouse (SFX-152)
Train #2 Mill Leg Elevator	Corn	112 tons per hour	
Train #2 Milled Corn Drag Conveyor	Corn	112 tons per hour	

Authority for Requirement: DNR Construction Permit 04-A-998-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-S40c

Associated Equipment

Emission Unit	Raw Material	Capacity	Control Equipment
Fermentation Process (EU P40)	Beer	1600 gpm	CO2 Scrubber (C40c)
Slurry Blender (Train #1)	Mash	725 gpm	
Fermenter #1	Beer	730,000 gallons	
Fermenter #2	Beer	730,000 gallons	
Fermenter #3	Beer	730,000 gallons	
Fermenter #4	Beer	730,000 gallons	
Fermenter #5	Beer	730,000 gallons	
Fermenter #6	Beer	730,000 gallons	
Fermenter #7	Beer	730,000 gallons	
Beer Well	Beer	985,000 gallons	
Regen Tank (Train #2)	Beer	600 gallons	
Vacuum Receiver Tank (Train #2)	Mash	150 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.

Emission Limits for Scrubber Recycle Operating Scenario and Scrubber Non-Recycle Operating Scenario

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: DNR Construction Permit 11-A-179-S6
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 15.80 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Acetaldehyde
Emission Limit(s): 0.95 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Individual HAP
Emission Limit(s): 0.54 lb/hr[2]
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Total HAP
Emission Limit(s): 1.52 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

[1] An exceedance of the indicator opacity of "*No Visible Emissions (NVE)*" will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] The specific Individual HAP are acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of the individual HAPs.

<u>Emission Limits during Scrubber (CE C40c) Bypass Operating Scenario</u>

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: DNR Construction Permit 11-A-179-S6
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.25 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 1.25 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 1,580 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Acetaldehyde
Emission Limit(s): 9.5 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Individual HAP
Emission Limit(s): 5.4 lb/hr[2]
Authority for Requirement: DNR Construction Permit 11-A-179-S6

Pollutant: Total HAP
Emission Limit(s): 15.2 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-179-S6

[1] An exceedance of the indicator opacity of "*No Visible Emissions (NVE)*" will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

[2] The specific Individual HAP are acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of the individual HAPs.

Operational Requirements & Associated Recordkeeping

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

FERMENTATION PROCESS OPERATING SCENARIOS:

A. The owner or operator may operate the fermentation process under one of the following scenarios:
   i. The Scrubber Recycle Operating Scenario is defined as scrubber (CE C40c) operation where the recycled water flow rate is at or greater than 90 percent of the recycled water flow rate observed during the most recent stack test that demonstrated compliance with the VOC and HAP emission limits listed in Permit Condition 1.A.
   ii. The Scrubber Non-Recycle Operating Scenario is defined as scrubber (CE C40c) operation where the recycled water flow rate is below 90 percent of the recycled water flow rate observed during the most recent stack test that demonstrated compliance with the VOC and HAP emission limits listed in Permit Condition 1.A.
   iii. The Scrubber Bypass Operating Scenario is defined as the operation where the scrubber (CE C40c) is shut down while the fermentation process continues. Monitoring of pressure drop, scrubbing liquid flow rate, recycled water flow rate, and additive feed rate is not required under this scenario.
   iv. The Reduced Rate Operating Scenario is defined as scrubber (CE C40c) operation where the beer feed rate is at or below the rate established during the most recent stack testing conducted operating under alternate water flow and additive rates that demonstrate compliance with the VOC and HAP emission limits listed in Permit Condition 1.A.

SCRUBBER (CE C40c) OPERATION REQUIREMENTS

B. For each month of operation, the facility shall operate the scrubber according to the parameters (scrubber liquid flow rate, additive feed rate and scrubbing liquid temperature) that it established during the seasonal performance testing required in Construction Permit Condition 2 to demonstrate compliance with the permitted emission limits of Construction Permit Condition 1. Monitoring the scrubbing liquid temperature is not required during winter operating conditions.

Permitted Monthly Scrubber Operating Parameters as Allowed by Season Tested

Season Tested	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Summer (testing shall be conducted in June, July or August)	X	X	X	X	X	X	X	X	X	X	X	X
Winter (testing allowed in any month from October through April	X	X	X	X						X	X	X

C. The scrubber shall have a minimum scrubber liquid flow rate equal to or greater than the average liquid flow rate, at the inlet to the wet scrubber, as measured during the most recent performance test (per each non-bypass operating scenario) for the applicable calendar month that demonstrated compliance with all applicable emission limits. The average liquid flow rate shall be based on a 3-hour block averaging period.

i. The owner or operator shall record the scrubber liquid (water) flow rate on a continuous basis.

ii. The owner or operator shall calculate and record the liquid flow rate based on a 3-hour block average.

iii. If the flow rate deviates below the minimum flow rate required (i.e., the average liquid flow rate observed during the applicable seasonal performance test), then the facility shall record the time, date and actions taken to correct the situation and when the flow rate is back above the minimum flow rate required.

iv. The facility shall record the permitted scrubbing liquid flow rate it is utilizing for each month as determined during the most recent seasonal performance test that it is using to demonstrate compliance.

D. The owner or operator shall record date, time, and current scenario (Scrubber Recycle Operating Scenario, Scrubber Non-Recycle Operating Scenario, Scrubber Bypass Operating Scenario, or Reduced Rate Operating Scenario) under which the fermentation process is operating each time the fermentation process switches to a different scenario.

i. The owner or operator shall record the recycled water flow rate on a continuous basis for the non-bypass operating scenarios.

ii. The owner or operator shall calculate and record the recycled water flow rate based on a 3-hour block average for the non-bypass operating scenarios.

iii. If the recycled water flow rate is at or above 90% of the average recycled water flow rate observed during the most recent stack test that demonstrated compliance, the owner or operator shall set the scrubbing liquid flow rate, the additive feed rate, and the recycled water flow rate based on the rates used during the most recent stack test that demonstrated compliance while the fermentation process operated under the **Scrubber Recycle Operating Scenario**.

iv. If the recycled water flow rate is below 90% of the average recycled water flow rate observed during the most recent stack test that demonstrated compliance, the owner

or operator shall set the scrubbing liquid flow rate, the additive feed rate, and the recycled water flow rate based on the rates used during the most recent stack test that demonstrated compliance while the fermentation process operated under the **Scrubber Non-Recycle Operating Scenario.**

v. **The Scrubber Bypass Operating Scenario** is limited to a maximum of 12 hours per twelve month rolling period.

vi. The owner or operator shall record monthly

a) the number of hours of operation the fermentation scrubber (CE C40c) is bypassed, and

b) the twelve month rolling total hours of bypass operation.

E. Any additive added to the scrubber liquid during a compliance test (per each operating scenario) to enhance the efficiency of the scrubber shall be added, for that month, at a rate greater than or equal to the rate recorded during the applicable seasonal operating performance test that demonstrated compliance with all applicable emission limitations. The additive feed rate shall be based on a 3-hour block averaging period.

i. The owner or operator shall record the rate of additive added (additive feed rate) to the scrubber liquid on a continuous basis.

ii. The owner or operator shall calculate and record the additive rate based on a 3-hour block average.

iii. If the additive feed rate deviates below the feed rate required (i.e., average additive feed rate observed during the applicable seasonal performance test), then the facility shall record the time, date and actions taken to correct the situation and when the additive feed rate is back above the minimum rate required.

iv. The facility shall record the permitted additive feed rate it is utilizing for each month as determined during the most recent seasonal performance test that it is using to demonstrate compliance.

F. If a chiller is used to cool the scrubber liquid (water) during a compliance test to enhance the efficiency of the scrubber the temperature of the water shall not be greater than 5^{o}F above the average temperature recorded during the applicable seasonal operating performance test that demonstrated compliance with all applicable emission limitations, based on a 3-hour block average.

i. The owner or operator shall collect and record the water temperature, at a minimum of once every 15 minutes. The owner or operator shall calculate and record the average water temperature based on a 3-hour block average.

ii. If the scrubbing water temperature exceeds the water temperature observed during the most recent seasonal performance test (that demonstrated compliance) by greater than 5^{o}F, record the time, date and actions taken to correct the situation and when the parameter is less 5^{o}F above the permitted average water temperature for that seasonal operating scenario.

iii. The facility shall record the permitted scrubber liquid temperature it is utilizing for each month as determined during the most recent seasonal performance test that it is using to demonstrate compliance.

G. The scrubber shall maintain an average pressure drop across the wet scrubber that is between 2 and 12 inches water column based on a 3-hour block averaging period. The facility shall establish an alarm setting for the purpose of initiating corrective action based on a pressure drop across the wet scrubber of less than 2 inches water column or a pressure drop across the

wet scrubber of greater than 12 inches water column.

i. The owner or operator shall record the scrubber pressure drop on a continuous basis.
ii. On those days when there is an alarm for the pressure drop reaching less than 2 inches water column or greater than 12 inches water column, calculate and record the average pressure drop across the scrubber based on a 3-hour block average. This requirement shall not apply on the days that the scrubber is not in operation.
iii. If the pressure drop deviates outside the range required, then record the time, date and actions taken to correct the situation and when the pressure drop is back in the average pressure drop range required.

H. The requirements in Permit Conditions 5.B. – 5.G. shall not apply on days that the scrubber (CE C40c) or the equipment the scrubber controls is not in operation.

I. Maintain onsite a copy of the previous performance tests for each scrubber seasonal operating scenario detailing scrubber pressure drop, scrubber liquid flow rate, recycled water flow rate and additive feed rate (per operating scenario) measured during each performance test, which demonstrated compliance with Permit Condition 1.A.

J. The owner or operator shall inspect and maintain the CO_2 Scrubber (CE C40c) according to the manufacturer's specifications and instructions. The owner or operator shall maintain a log of all inspections and maintenance activities performed on the CO_2 Scrubber (CE C40c). At a minimum, this log shall include:

v. The date any inspection and/or maintenance was performed on the control equipment;
vi. Any issues identified during the inspection;
vii. Any issues addressed during the maintenance activities and the date each issue was resolved; and,

Identification of the staff person performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 11-A-179-S6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 75
Stack Opening, (inches, dia.): 29.25
Exhaust Flow Rate (scfm): 12,000
6,950 (Reduced Rate Operating Scenario)
Exhaust Temperature (°F): 65
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-179-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

Stack Testing:

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
VOC[2]	Stack Testing[1] Recordkeeping[11]	See Footnotes 4, 5, 6, 7, 8, 9, 10	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
HAP[3]	Stack Testing[1] Recordkeeping[11]	See Footnotes 4, 5, 6, 7, 8, 9, 10	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

[1] Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario. This includes the recycled water flow rate in the scrubber (CE C40c).

[2] VOC compliance may be determined using the sum of the Method 320 or Method 18 results

[3] Acetaldehyde, acrolein, formaldehyde and methanol shall be tested for specifically. With the exception of acetaldehyde, acrolein, formaldehyde and methanol, any HAP whose emissions are below the detection limit shall be assumed to be zero.

[4] Initial performance testing shall be conducted for each seasonal scrubber operating scenario (summer and winter). The initial test for the Reduced Rate Operating Scenario was conducted on December 15, 2020. The next test for the Reduced Rate Operating Scenario is due by August 31, 2021.

[5] If the owner or operator opts to switch to the Scrubber Recycle Operating Scenario and Scrubber Non-Recycle Operating Scenario from the Reduced Rate Operating Scenario, an initial test shall be conducted within 60 days after achieving the maximum production rate and no later than 180 days after initial startup of the water recycle line. Initial testing shall be performed separately for each of the following operating scenarios: Scrubber Recycle Operating Scenario and Scrubber Non-Recycle Operating Scenario (see Permit Condition 5.A. for a description of each of these scenarios).

[6] Reduced-rate: If the owner or operator opts to comply only with the operating parameters established for the Scrubber Recycle Operating Scenario and Scrubber Non-Recycle Operating Scenario (normal production rate) testing (i.e., the owner or operator decides they no longer want to perform "reduced-rate" testing and operate at a "reduced-rate"), the owner or operator shall amend this permit to remove the "reduced-rate" testing and the applicable "reduced-rate" operating rate requirements.

[7] Seasonal (winter): If the owner or operator opts to comply only with the operating parameters established during the June, July, or August (summer) testing (i.e., the owner or operator decides they no longer want to perform winter testing and operate at winter rates), the owner or operator shall amend this permit to remove the winter testing and the applicable seasonal operating rate requirements.

[8] If the owner or operator opts to operate at only the Reduced Rate Operating Scenario (i.e., the owner or operator decides they no longer want to operate at maximum production capacity), the owner or operator shall amend this permit to remove the normal operating capacity testing and limit the production capacity of the plant.

[9] After the initial performance test for each normal operating scenario (Scrubber Recycle and Scrubber Non-Recycle, or Reduced Rate), establishing the summer operating parameters, the facility shall annually conduct stack testing for the qualifying seasonal period covering the months of May through September (summer), as described in Permit Condition 5.B. Periodic testing shall be

performed separately for each of the following scenarios: Scrubber Recycle Operating Scenario and Scrubber Non-Recycle Operating Scenario, or Reduced Rate Operating Scenario. Stack testing shall be conducted during the months of June, July, or August for this period. The facility shall use those tests that demonstrate compliance with the permitted emission limits in Permit Condition 1 to establish the scrubber liquid flow rate, additive feed rate and, scrubbing water temperature (if a chiller is used to control scrubbing water temperature) for each month of operation, as detailed in Permit Condition 5, per scenario.

[10] After the initial performance test for each normal operating scenario (Scrubber Recycle and Scrubber Non-Recycle, or Reduced Rate) establishing the winter operating parameters, the facility shall conduct stack testing for the qualifying seasonal period covering the months of October through April (winter) once every 36 months, as described in Permit Condition 5.B. Periodic testing shall be performed separately for each of the following scenarios: Scrubber Recycle Operating Scenario and Scrubber Non-Recycle Operating Scenario, or Reduced Rate Operating Scenario.

[11] Hours of operation on a 12-month rolling total, for scrubber bypass operating scenario only.

Authority for Requirement - DNR Construction Permit 11-A-179-S6

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)

Compliance Assurance Monitoring Plan for

Valero Renewable Fuels Company, LLC dba Valero Lakota Plant

EP S40c – Packed Bed Wet Scrubber

I. Background

A. Emissions Unit

Description: Fermentation Process
Fermenter #1-3 (EU P40)
Fermenter #4-6 (EU P40b)
Train #2 Regen Tank and Vacuum Receiver Tank (EU P10d)

Facility: Valero Renewable Fuels Company, LLC dba Valero Lakota Plant
Lakota, Iowa

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	Construction Permit # 11-A-179-S6
VOC Emission Limit or Standard:	15.80 lbs/hr VOC
HAP Emission Limits:	0.95 lb/hr Acetaldehyde 0.54 lb/hr Individual HAP 1.52 lb/hr Total HAP
Current Monitoring Requirements:	Annual Summer Stack Testing (Scrubber Recycle and Scrubber Non-Recycle Scenarios) 36-Month Winter Stack Testing (Scrubber Recycle and Scrubber Non-Recycle Scenarios) Continuously monitor differential pressure drop Continuously monitor additive feed rate and type of additive used

C. Control Technology

Packed Bed Wet Scrubber

II. Packed Bed Wet Scrubber (C40c) Monitoring Approach

A. Indicator

Water flow rate to the scrubber will be used as an indicator.

B. Measurement Approach

The water flow rate will be measured using a flow meter.

C. Indicator Range

An excursion is defined as a 3-hour block average scrubber water flow rate recording less than the average rate recorded during the most recent stack test. Excursions trigger an investigation of the occurrence, corrective action and reporting requirements.

D. QIP (Quality Improvement Plan) Threshold (Optional)

The QIP threshold is triggered then there are excursions more than 5% of the operation time in a semi-annual reporting period (January 1 to December 31), excluding periods of startup, shutdown and malfunction. A deviation shall be reported in the semi-annual report when the QIP threshold is triggered.

E. Performance Criteria

Data representativeness:	The water flow rate meter measures the inlet water flow rate to the scrubber. Water flow rates less than the average recorded during the most recent stack test indicates a potential decrease in VOC removal efficiency of the scrubber.
Verification of operational status:	The water flow rate was installed, calibrated, and is operated in accordance with manufacturer's recommendations.
QA/QC practices and criteria	1. The water flow rate meter will be calibrated per manufacturer's recommendations. 2. The scrubber will be cleaned and inspected per manufacturer's recommendations.
Monitoring and data collection frequency:	The scrubber fresh and recycle water flow rate will be measured continuously using a data acquisition system and recorded at a minimum of once every 15 minutes.
Averaging period:	A 3-hour block average during process operation will be calculated and recorded.

III. Justification

A. Background

VOC emissions from the Fermentation process (EU P40 and EU P40b) and the Train #2 Regen Tank and Vacuum Receiver Tank (P10d) are controlled using a packed bed wet scrubber with single pass water flow. The exhaust from the scrubber is routed to atmosphere.

B. Rationale for Selection of Performance Indicator

To comply with the applicable emission limit, a minimum water flow rate must be applied to the scrubber to absorb a given amount of VOC in the gas stream, given the size of the tower and height of the packed bed. The liquid to gas (L/G) ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, sufficient mass transfer of the pollutant from the gas phase to the liquid phase may not occur. Results from stack testing are used as a minimum liquid flow required to maintain the proper

L/G ratio at the maximum gas flow and vapor loading through the scrubber. Maintaining this minimum liquid flow, even during periods of reduced air flow, will help ensure that the ideal L/G ratio is achieved at all times.

C. Rationale for Selection of Indicator Level

The minimum water flow rate indicator level was chosen based on stack testing results.

Emission Point ID Number: EP-SFX810

Associated Equipment

Associated Emission Unit ID Numbers: EU-P60
Emissions Control Equipment ID Number: CE-FX810
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P60
Emission Unit Description: DDGS Loadout
Raw Material/Fuel: DDGS
Rated Capacity: 281 ton/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: DNR Construction Permit 02-A-830-S3
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.215 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-830-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.215 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-830-S3
567 IAC 23.4(7)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37.25
Stack Opening, (inches, dia.): 11.5
Exhaust Flow Rate (acfm): 2500
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-830-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX825

Associated Equipment

Associated Emission Unit ID Numbers: EU-P60
Emissions Control Equipment ID Number: CE-FX825
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P60
Emission Unit Description: DDGS Loadout
Raw Material/Fuel: DDGS
Rated Capacity: 281 ton/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: DNR Construction Permit 02-A-831-S2
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-831-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-831-S2
567 IAC 23.4(7)

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

Operating Limits

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. The control equipment shall be inspected and maintained according to manufacturer's recommendations.

Authority for Requirement: DNR Construction Permit 02-A-831-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 33
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 1000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-831-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-S70

Associated Equipment

Associated Emission Unit ID Numbers: EU-P70
Emissions Control Equipment ID Number: CE-C70
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-P70
Emission Unit Description: Train #1 DDGS Cooling Cyclone
Raw Material/Fuel: DDGS
Rated Capacity: 20 ton/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%
Authority for Requirement: DNR Construction Permit 01-A-526-S14
567 IAC 23.3(2) "d"

(1)An exceedance of the indicator opacity of "No Visible Emissions" will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.90 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-526-S14

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 1.90 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-526-S14
567 IAC 23.4(7)
Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.94 lb/hr
Authority for Requirement: DNR Construction Permit 01-A-526-S14

Pollutant: Acetaldehyde
Emission Limit(s): 0.35 lb/hr(3)
Authority for Requirement: DNR Construction Permit 01-A-526-S14

Pollutant: Individual HAP
Emission Limit(s): 0.75 lb/hr(2)(3)
Authority for Requirement: DNR Construction Permit 01-A-526-S14

Pollutant: Total HAP
Emission Limit(s): 1.52 lb/hr[3]
Authority for Requirement: DNR Construction Permit 01-A-526-S14

[2]The specific Individual HAP are acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of the individual HAPs.
[3] Emission limit listed is the sum of the emission rates for EP S10 and EP S70, combined.

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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 inspect and maintain the control equipment according to manufacturer's specifications.

B. The owner or operator shall conduct an inspection of the emission units and the associated control equipment, Baghouse (CE C70), at a minimum of once per year and correct/repair any issues discovered during the inspection. The owner or operator shall maintain a log of all inspections and maintenance activities performed on the emission units and the associated control equipment. This log shall include, but is not necessarily limited to:
    i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
    ii. Any issues identified during the inspection and the date each issue was resolved;
    iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and,
    iv. Identification of the staff person performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 01-A-526-S14

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 45
Stack Opening, (inches, dia.): 30
Exhaust Flow Rate (scfm): 19,500
Exhaust Temperature (°F): 85
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 01-A-526-S14

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.

Stack Testing:

Compliance Demonstration Table

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
VOC	Stack Test(1)	Once every 3 years	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Acetaldehyde	Stack Test(3)(4)	Once every 12 months(5)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Individual HAP(2)	Stack Test(3)(4)	Once every 12 months(5)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Total HAP	Stack Test(3)(4)	Once every 12 months(5)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320

(1) Stack testing shall be conducted once every three years with a minimum of six (6) months between testing. If a stack test exceeds 90% of appropriate emission limit, then the facility shall conduct testing once every twelve months until four (4) consecutive tests are less than 90% of the appropriate emission limit. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario.

(2) Acrolein, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, formaldehyde and methanol, any HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario.

(3) The stack testing for these emission units venting through EP S70 shall be conducted simultaneously with the stack testing for the emission units venting through EP S10. The tested emission rates shall be summed together to determine compliance with the applicable emission limit in Permit Condition 1.

(4) The facility shall either conduct representative annual stack testing for the Train #1 sources (EP S70 and EP S10) and Train #2 sources (EP S70b and EP S10c) or conduct annual stack testing on the Train #1 sources and Train #2 sources. In both cases, the required testing shall have a minimum of six (6) months between each test.

(5) Should the owner or operator decide to conduct representative compliance testing, the compliance status determined from that compliance test shall be considered representative for the other emission source group. The owner or operator shall alternate the testing of these emission sources (Train #1 and Train #2), so that each point will be tested once every other calendar year (i.e., alternate years for conducting compliance tests).

Authority for Requirement - DNR Construction Permit 01-A-526-S14

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.

The data pertaining to the plan shall be 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: EP-S70b

Associated Equipment

Associated Emission Unit ID Numbers: EU-P70b
Emissions Control Equipment ID Number: CE-C70b
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P70b
Emission Unit Description: Train #2 DDGS Cooling Cyclone
Raw Material/Fuel: DDGS
Rated Capacity: 20 ton/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: DNR Construction Permit 05-A-227-S10
567 IAC 23.3(2)"d"

[(1)]An exceedance of the indicator opacity of "No Visible Emissions" will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.50 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-227-S10

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 1.50 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-227-S10
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.94 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-227-S10

Pollutant: Acetaldehyde
Emission Limit(s): 0.82 lb/hr[(3)]
Authority for Requirement: DNR Construction Permit 05-A-227-S10

Pollutant: Individual HAPs[(2)(3)]
Emission Limit(s): 0.82 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-227-S10

Pollutant: Total HAP
Emission Limit(s): 1.85 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-227-S10

(2) Emission limit established in Project 18-071 to maintain synthetic minor status for 112(g) and/or any applicable NESHAP. The specific Individual HAP are acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of the individual HAPs.
(3) Emission limit listed is the sum of the emission rates for EP S10c and EP S70b, combined.

Operating Requirements with Associated Monitoring and Recordkeeping

Unless specified by a federal regulation, 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 inspect and maintain the control equipment according to manufacturer's specifications.

B. The owner or operator shall conduct an inspection of the emission units and the associated control equipment, Baghouse (CE C70b), at a minimum of once per year and correct/repair any issues discovered during the inspection. The owner or operator shall maintain a log of all inspections and maintenance activities performed on the emission units and the associated control equipment. This log shall include, but is not necessarily limited to:
    v. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
    vi. Any issues identified during the inspection and the date each issue was resolved;
    vii. Any issues addressed during the maintenance activities and the date each issue was resolved; and,
    viii. Identification of the staff person performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 05-A-227-S10

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 45
Stack Opening, (inches, dia.): 41
Exhaust Flow Rate (scfm): 25,800
Exhaust Temperature (°F): 95
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 05-A-227-S10

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

Stack Testing:

Compliance Demonstration Table

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
VOC	Stack Test(1)	Once every 3 years(6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Acetaldehyde	Stack Test(3)(4)	Once every 12 months(5,6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Individual HAP(2)	Stack Test(3)(4)	Once every 12 months(5,6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Total HAP	Stack Test(3)(4)	Once every 12 months(5,6)	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320

(1) Stack testing shall be conducted once every three years with a minimum of six (6) months between testing. If a stack test exceeds 90% of appropriate emission limit, then the facility shall conduct testing once every twelve months until four (4) consecutive tests are less than 90% of the appropriate emission limit. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario.

(2) Acrolein, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, formaldehyde and methanol, any HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario.

(3) The stack testing for these emission units venting through EP S70b shall be conducted simultaneously with the stack testing for the emission units venting through EP S10c. The tested emission rates shall be summed together to determine compliance with the applicable emission limit in Permit Condition 1.

(4) The facility shall either conduct representative annual stack testing for the Train #1 sources (EP S70 and EP S10) and Train #2 sources (EP S70b and EP S10c) or conduct annual stack testing on the Train #1 sources and Train #2 sources. In both cases, the required testing shall have a minimum of six (6) months between each test.

(5) Should the owner or operator decide to conduct representative compliance testing, the compliance status determined from that compliance test shall be considered representative for the other emission source group. The owner or operator shall alternate the testing of these emission sources (Train #1 and Train #2), so that each point will be tested once every other calendar year (i.e., alternate years for conducting compliance tests).
(6) Upon issuance of this permit renewal, the facility will conduct the required stack testing within 90 days following the re-start of the equipment controlled by S70b

Authority for Requirement - DNR Construction Permit 05-A-227-S10

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.

The data pertaining to the plan shall be 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: EP-S80a, EP-S80b

Associated Equipment

Associated Emission Unit ID Numbers: EU-P80a, EU-P80b
Emissions Control Equipment ID Number: CE-P80a, CE-P80b
Emissions Control Equipment Description: Mist Eliminators
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-S80a	EU-P80a	Cooling Tower	Cooling Water	1,600,000 gal/hr(1)
EP-S80b	EU-P80b			

(1)Maximum water flowrate for each Cooling Tower

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permit 04-A-1003-S1, 04-A-1004-S1
567 IAC 23.3(2) "d"

(1) An exceedance of the indicator opacity 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_{10})
Emission Limit(s): 1.34 lb/hr (2)
Authority for Requirement: DNR Construction Permit 04-A-1003-S1, 04-A-1004-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 1.34 lb/hr (2)
Authority for Requirement: DNR Construction Permit 04-A-1003-S1, 04-A-1004-S1
567 IAC 23.3(2) "a"

(2) Limit established to keep the facility synthetic minor source for PSD. The limit is based on drift loss and total dissolved solids (TDS) limit of 2,000 parts per million by weight (2,000 mg/l).

Operational Limits & Requirements

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

Operating Limits

A. The Total Dissolved Solids (TDS) concentration in the cooling water shall not exceed 2,000 parts per million by weight (2,000 mg/L) for any single sampling event.

B. Biocide or additive used in cooling water shall not contain any VOCs or HAPs.

C. Maintain Cooling Towers according to manufacturer specifications and maintenance schedule.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

The owner/operator shall maintain the following records:

A. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration in the cooling water associated with each Cooling Tower on a quarterly basis expressed as parts per million by weight (mg/L). Sampling shall occur four times per calendar year with a minimum of one month between sampling events.

B. Maintain onsite a copy of Material Safety Data Sheet (MSDS) of any biocide or additive used in cooling water detailing VOC and HAP content (if any).

C. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of each Cooling Tower.

Authority for Requirement: DNR Construction Permit 04-A-1003-S1, 04-A-1004-S

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Cooling Tower P80a
Stack Height, (ft, from the ground): 30
Stack Opening, (inches, dia.): 216
Exhaust Flow Rate (scfm): 511,364
Exhaust Temperature (°F): 90
Discharge Style: Vertical

Cooling Tower P80b
Stack Height, (ft, from the ground): 34
Stack Opening, (inches, dia.): 312
Exhaust Flow Rate (scfm): 545,455
Exhaust Temperature (°F): 90
Discharge Style: Vertical
Authority for Requirement: DNR Construction Permit 04-A-1003-S1, 04-A-1004-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

Testing Requirements:

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – State	Yes	TDS Sampling	Quarterly (4 times per calendar year)
PM_{10}	Yes	TDS Sampling	Quarterly (4 times per calendar year)

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-T61, EP-T62

Associated Equipment

Associated Emission Unit ID Numbers: EU-T61, EU-T62
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-T61	EU-T61	Final Product Storage Tank	Denatured and Undenatured Ethanol	750,000 gallons capacity
EP-T62	EU-T62			750,000 gallons capacity

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.26 tons/yr[2]
Authority for Requirement: DNR Construction Permits 01-A-527-S1, 01-A-528-S1

Pollutant: Single HAP
Emission Limit(s): 0.01 tons/yr[1,2]
Authority for Requirement: DNR Construction Permits 01-A-527-S1, 01-A-528-S1

Pollutant: Total HAP
Emission Limit(s): 0.01 tons/yr[1]
Authority for Requirement: DNR Construction Permits 01-A-527-S1, 01-A-528-S1

[1] The emission limit is based on the worst-case emission scenario of the maximum quantity of denatured and undenatured ethanol loaded per year. See condition 5 for compliance demonstration with the applicable limit.
[2] The highest Single HAP is n-Hexane.

Operational Requirements With Associated Recordkeeping Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

A. The owner or operator may store denatured or undenatured ethanol in this tank.
B. The owner or operator shall follow the applicable standards of Subpart Kb, 40 CFR § 60.112b(a)(1), and inspect as required in 40 CFR § 60.113b(a).
    i. The owner or operator shall keep records as required in 40 CFR § 60.115b(a) and 40 CFR § 60.116b.

ii. In accordance with 40 CFR § 60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept for the life of the source.

C. The owner or operator is limited to a maximum production/loadout (loadout by truck or rail) of 127,000,000 gallons of ethanol or denatured ethanol per rolling 12-month period at Valero Renewable Fuels Co, LLC (Facility ID: 55-09-003). On a monthly basis, the owner or operator shall:
   i. Record the amount of ethanol or denatured ethanol produced/loaded out, in gallons, at this facility during the previous month; And
   ii. Calculate and record the amount of ethanol or denatured ethanol produced/loaded out, in gallons, at this facility during the previous 12 month period.

Authority for Requirement: DNR Construction Permits 01-A-527-S1, 01-A-528-S1

NSPS and NESHAP Applicability

These emission points are subject to the requirements of NSPS Subpart A – General Provisions and Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

Authority for Requirement: DNR Construction Permit 01-A-527-S1, 01-A-528-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 52
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): Displacement
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 01-A-527-S1, 01-A-528-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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-T63, EP-T65

Associated Equipment

Associated Emission Unit ID Numbers: EU-T63, EU-T65
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-T63	EU-T63	Ethanol Process Tank	200 Proof Ethanol	100,000 gallons capacity
EP-T65	EU-T65		190 Proof Ethanol	100,000 gallons capacity

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.

Emission limits are not required at this time.

Operational Limits & Requirements
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. The owner or operator shall not allow ethanol to be directly loaded out for distribution from the 200 and 190 proof process tanks.

Authority for Requirement: DNR Construction Permit 01-A-529-S1, 01-A-531-S2

NSPS and NESHAP Applicability

These emission points are subject to the requirements of NSPS Subpart A – General Provisions and Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. For this affected facility, a process unit is any components assembled to produce industrial grade ethanol.

Authority for Requirement: DNR Construction Permit 01-A-529-S1, 01-A-531-S2

Emission Point Characteristics
Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient
Discharge Style: Vent
Authority for Requirement: DNR Construction Permit 01-A-529-S1, 01-A-531-S2

The temperature and flow rate 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 design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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-T64

Associated Equipment

Associated Emission Unit ID Numbers: EU-T64
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-T64
Emission Unit Description: Denaturant or Intermediate Ethanol Storage Tank
Raw Material/Fuel: Denaturant
Rated Capacity: 100,000 gallons capacity

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): 1.72 tons/yr[1]
Authority for Requirement: DNR Construction Permit 01-A-530-S2

Pollutant: Single HAP
Emission Limit(s): 0.43 tons/yr[1,2]
Authority for Requirement: DNR Construction Permit 01-A-530-S2

Pollutant: Total HAP
Emission Limit(s): 0.77 tons/yr[1]
Authority for Requirement: DNR Construction Permit 01-A-530-S2

[1] The emission limit is based on the worst-case emission scenario of the maximum quantity of denaturant and intermediate ethanol loaded per year. See condition 5 for compliance demonstration with the applicable limit.
[2] The highest Single HAP is n-Hexane.

Operational Limits & 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 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 owner or operator may store denaturant or intermediate ethanol in this tank.
B. The owner or operator shall follow the applicable standards of Subpart Kb, 40 CFR § 60.112b(a)(1), and inspect as required in 40 CFR § 60.113b(a).
    i. The owner or operator shall keep records as required in 40 CFR § 60.115b(a) and

40 CFR § 60.116b.

ii. In accordance with 40 CFR § 60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept for the life of the source.

C. The owner or operator is limited to a maximum production/loadout (loadout by truck or rail) of 127,000,000 gallons of ethanol or denatured ethanol per rolling 12-month period at Valero Renewable Fuels Co, LLC (Facility ID: 55-09-003). On a monthly basis, the owner or operator shall:

i. Record the amount of ethanol or denatured ethanol produced/loaded out, in gallons, at this facility during the previous month; And

ii. Calculate and record the amount of ethanol or denatured ethanol produced/loaded out, in gallons, at this facility during the previous 12 month period.

D. The owner or operator is limited to a maximum throughput of 3,110,230 gallons of denaturant per rolling 12-month period at Valero Renewable Fuels Co, LLC (Facility ID: 55-09-003). On a monthly basis, the owner or operator shall:

i. Record the amount of denaturant processed, in gallons, at this facility during the previous month; And

ii. Calculate and record the amount of denaturant processed, in gallons, at this facility during the previous 12 month period.

Authority for Requirement: 567 IAC 23.1(2) "ddd
40 CFR 60 Subpart Kb
DNR Construction Permit 01-A-530-S2

NSPS and NESHAP Applicability

This emission point is subject to NSPS Subpart A – General Provisions and Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced After July 23, 1984.

Authority for Requirement: DNR Construction Permit 01-A-530-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): Displacement
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 01-A-530-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall

submit a request 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-T66

Associated Equipment

Associated Emission Unit ID Numbers: EU-T66
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-T66
Emission Unit Description: Final Product Storage Tank
Raw Material/Fuel: Denatured and Undenatured Ethanol
Rated Capacity: 1,000,000 gallons capacity

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): 0.33 tons/yr[1]
Authority for Requirement: DNR Construction Permit 04-A-1005-S2

Pollutant: Single HAP
Emission Limit(s): 0.01 tons/yr[1,2]
Authority for Requirement: DNR Construction Permit 04-A-1005-S2

Pollutant: Total HAP
Emission Limit(s): 0.01 tons/yr[1]
Authority for Requirement: DNR Construction Permit 04-A-1005-S2

[1] The emission limit is based on the worst-case emission scenario of the maximum quantity of denaturant and intermediate ethanol loaded per year. See condition 5 for compliance demonstration with the applicable limit.
[2] The highest Single HAP is n-Hexane.

Operational Limits & 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:

A. The owner or operator may store denatured or undenatured ethanol in this tank.
B. The owner or operator shall follow the applicable standards of Subpart Kb, 40 CFR § 60.112b(a)(1), and inspect as required in 40 CFR § 60.113b(a).
    i. The owner or operator shall keep records as required in 40 CFR § 60.115b(a) and 40 CFR § 60.116b.
    ii. In accordance with 40 CFR § 60.116b(b), the owner or operator shall keep readily

accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept for the life of the source.

C. The owner or operator is limited to a maximum production/loadout (loadout by truck or rail) of 127,000,000 gallons of ethanol or denatured ethanol per rolling 12-month period at Valero Renewable Fuels Co, LLC (Facility ID: 55-09-003). On a monthly basis, the owner or operator shall:
   i. Record the amount of ethanol or denatured ethanol produced/loaded out, in gallons, at this facility during the previous month; And
   ii. Calculate and record the amount of ethanol or denatured ethanol produced/loaded out, in gallons, at this facility during the previous 12 month period.

Authority for Requirement: 567 IAC 23.1(2) "ddd
40 CFR 60 Subpart Kb
DNR Construction Permit 04-A-1005-S2

NSPS and NESHAP Applicability

This emission point is subject to NSPS Subpart A – General Provisions and Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced After July 23, 1984.

Authority for Requirement: DNR Construction Permit 04-A-1005-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 54
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (scfm): Displacement
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 04-A-1005-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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-SFX130

Associated Equipment

Associated Emission Unit ID Numbers: EU-T130
Emissions Control Equipment ID Number: CE-FX130
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-T130
Emission Unit Description: Grain Silo
Raw Material/Fuel: Grain
Rated Capacity: Maximum Capacity 237,500 bushels

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 03-A-1372-S4
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1372-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1372-S4
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 158.75
Stack Opening, (inches): 5.6×7
Exhaust Flow Rate (scfm): 1000
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 03-A-1372-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall

submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX131, EP-SFX141

Associated Equipment

Associated Emission Unit ID Numbers: EU-T131, EU-T141
Emissions Control Equipment ID Number: CE-FX131, CE-FX141
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-SFX131	EU-T131	Grain Silo	Grain	Max. 500,000 bushels
EP-SFX141	EU-T141			Max. 500,000 bushels

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 04-A-1001-S2, 04-A-1002-S2
567 IAC 23.3(2) "d"

(1)An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-1001-S2, 04-A-1002-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-1001-S2, 04-A-1002-S2
567 IAC 23.4(7)

Emission Point Characteristics
Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 135
Stack Opening, (inches): 8×8
Exhaust Flow Rate (scfm): 1000
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 04-A-1001-S2, 04-A-1002-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-SFX140

Associated Equipment

Associated Emission Unit ID Numbers: EU-T140
Emissions Control Equipment ID Number: CE-FX140
Emissions Control Equipment Description: Fabric Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-T140
Emission Unit Description: Grain Silo
Raw Material/Fuel: Grain
Rated Capacity: Maximum Capacity 237,500 bushels

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 04-A-340-S2
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of 10% will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-340-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-340-S2
567 IAC 23.4(7)

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

Operating Limits

A. The control equipment shall be inspected and maintained according to manufacturer's recommendations.

Reporting and Recordkeeping
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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 04-A-340-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 158.75
Stack Opening, (inches): 5.6×7
Exhaust Flow Rate (scfm): 1000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 04-A-340-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

The data pertaining to the plan shall be 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: EP-S50

Associated Equipment

Associated Emission Unit ID Numbers: EU-F50
Emissions Control Equipment ID Number: CE-C50 (truck loadout)
Emissions Control Equipment Description: Vapor Combustion Unit with vapor recovery system (3.2 MMBtu/hr)

Emission Unit vented through this Emission Point: EU-F50
Emission Unit Description: Truck & Rail Loadout
Raw Material/Fuel: Natural Gas
Rated Capacity: Truck Loadout: 600 gpm
Each Rail Loadout: 1000 gpm
One rail loadout rack and one truck loadout rack

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 02-A-832-S7
567 IAC 23.3(2) "d"

[(1)]An exceedance of the indicator opacity of no visible emissions will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-832-S7

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-832-S7
567 IAC 23.3(2) "a"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 27.0 ton/yr[2]
Authority for Requirement: DNR Construction Permit 02-A-832-S7

Pollutant: Acetaldehyde
Emission Limit(s): 0.09 ton/yr[2]
Authority for Requirement: DNR Construction Permit 02-A-832-S7

Pollutant: Total HAP
Emission Limit(s): 0.54 ton/yr[2]
Authority for Requirement: DNR Construction Permit 02-A-832-S7

[2] The emission limit is based on the worst-case emission scenario of the maximum quantity of denatured and undenatured ethanol loaded per year. See condition 5 for compliance demonstration with the applicable limit.

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 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 total amount of ethanol product (i.e., denatured ethanol or undenatured ethanol) transported through the truck loading and rail loading shall not exceed 127,000,000 gallons per twelve-month rolling period. On a monthly basis, the owner or operator shall:
   i. Record the total amount of ethanol product (i.e., denatured ethanol or undenatured ethanol) shipped through the truck & rail loadout during the previous month; and
   ii. Calculate and record the rolling 12-month total amount of ethanol product (i.e., denatured ethanol or undenatured ethanol) loaded out, in gallons, by rail or truck.

B. The owner or operator is limited to a maximum throughput of 3,110,230 gallons of denaturant per rolling 12-month period at Valero Renewable Fuels Co, LLC (Facility ID: 55-09-003). On a monthly basis, the owner or operator shall:
   i. Record the amount of denaturant processed, in gallons, at this facility during the previous month; And
   ii. Calculate and record the amount of denaturant processed, in gallons, at this facility during the previous 12 month period.

C. Switch-loading is not allowed at the Rail Loadout. (NOTE: Switch loading occurs when ethanol is loaded into railcars previously containing gasoline).

D. The vapor recovery system (VRS) Vapor Combustion Unit shall be in operation during all times of final product loading to trucks (NOTE: The Truck Loadout is controlled with a VRS & Vapor Combustion Unit. The Rail Loadout is not controlled with a VRS & Vapor Combustion Unit).

E. The Vapor Combustion Unit shall be operated per the requirements of NSPS Subpart A - §60.18.

F. The owner or operator shall operate and maintain the Vapor Combustion Unit (CE C50) according to the manufacturer's specifications and maintenance schedule. The facility shall maintain a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:
   i. The date and time any inspection and/or maintenance was performed on the control equipment;
   ii. Any issues identified during the inspection and the date each issue was resolved; and,
   iii. Any issues identified during the maintenance activities and the date each issue was resolved.

Authority for Requirement: DNR Construction Permit 02-A-832-S7

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 3280
Exhaust Temperature (°F): 950
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-832-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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** ☐

Compliance Assurance Monitoring Plan for Valero Renewable Fuels Company, LLC dba Valero Lakota Plant

EP-S50 – Truck Loadout Vapor Combustion Unit

I. Background

A. Emissions Unit
Description: Truck Ethanol Loadout (EU -F50)

Facility: Valero Renewable Fuels Company, LLC dba Valero Lakota Plant

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.: Construction Permit # 02-A-832-S7
VOC Emission Limit: 27.0 tons/year VOC

Current Monitoring Requirements: Facility Operation and Maintenance Plan

C. Control Technology
Thermal Oxidization by Flaring

II. Ethanol Loadout Vapor Combustion Unit (CE C50) Monitoring Approach

A. Indicator
Visual confirmation that a flame is present during ethanol loadout operations will be used as the performance indicator.

B. Measurement Approach
The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1.

Table 1. Monitoring Approach

	Indicator
I. Indicator	Visual confirmation of the presence of a flame.
Measurement Approach	The presence of a flame will be monitored and recorded once per day that ethanol is loaded out to trucks.
II. Indicator Range	The facility utilizes automatic systems and safety devices to verify that a flame is present to ensure the control of emissions. The visual confirmation of flame presence will be the indicator and no range is required.

	Indicator
Corrective Action	Each excursion triggers an inspection, corrective action, and a reporting requirement.
QIP Threshold	Six or more excursions (visual confirmation of no flame present) in a reporting period.
III. Performance Criteria	
A. Data Representativeness	Visual confirmation of flame presence will be monitored and performed by a qualified operator.
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	Maintain, and operate any required instrumentation in accordance with manufacturer's recommendation.
D. Monitoring Frequency and Data Collection Procedures	Visual confirmation of flame presence will be conducted once per day during ethanol loadout to trucks, if loading operations are performed.
Averaging period	Not applicable.
E. Record Keeping	Maintain for a period of 2 years records of electronic media and corrective actions taken in response to excursions.
F. Reporting	Number, duration, and cause of any excursion and the corrective action taken.
Frequency	Semiannually, if required

III. Justification

A. Background

VOC emissions from Truck Ethanol Loadout (EU F50) are controlled by a Vapor Combustion Unit.

B. Rationale for Selection of Performance Indicator

The use of a Vapor Combustion Unit at ethanol facilities is typically considered best available control technology (BACT) for ethanol loading operations. Since the vapors from the transport vessel are flammable, the presence of a flame in the Vapor Combustion Unit results in combustion of the vapors and the destruction of VOC. Therefore, confirmation that a flame is present during loading operations is recommended to achieve the desired VOC control.

C. Rationale for Selection of Indicator Level

The indicator was selected to allow a simple and effective procedure for compliance tracking purposes. When an excursion occurs corrective action will be initiated based upon the observed operating parameters. All excursions will be documented and reported. The selected QIP threshold for Vapor Combustion Unit operations is 6 excursions during the semi-annual reporting period. If the QIP threshold is exceeded in a semi-annual reporting period, a QIP will be developed and implemented.

Emission Point ID Number: EP-F60

Associated Equipment

Associated Emission Unit ID Numbers: EU-F60
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-F60
Emission Unit Description: DDGS Auxiliary Loadout
Raw Material/Fuel: DDGS
Rated Capacity: Maximum Capacity 40,000 ton/yr

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 05-A-802-S1
567 IAC 23.3(2) "d"

(1) An exceedance of the indicator opacity of no visible emissions will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.15 lb/hr; 0.57 ton/yr
Authority for Requirement: DNR Construction Permit 05-A-802-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 2.15 lb/hr; 0.57 ton/yr
Authority for Requirement: DNR Construction Permit 05-A-802-S1
567 IAC 23.3(2) "a"

Pollutant: Single HAP
Emission Limit(s): 9.4 ton/yr (2)
Authority for Requirement: DNR Construction Permit 05-A-802-S1

Pollutant: Total HAP
Emission Limit(s): 24.4 ton/yr (3)
Authority for Requirement: DNR Construction Permit 05-A-802-S1

(2), (3) Plant-wide limit imposed to keep the facility synthetic minor for any applicable NESHAP.

Operational Limits & Requirements

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

Operating Limits

A. The total amount of DDGS loaded out through the Auxiliary DDGS Loadout shall not exceed 40,000 tons of DDGS per 12-month rolling period.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. Record monthly, the total amount of DDGS loaded out through the Auxiliary DDGS Loadout each month. Calculate and record 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 05-A-802-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: EP-F90

Associated Equipment

Associated Emission Unit ID Numbers: EU-F90
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Leak Detection and Repair (LDAR)
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-F90
Emission Unit Description: VOC Emissions from Equipment Leaks
Raw Material/Fuel: VOC Leaks
Rated Capacity: NA

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): 16.0 ton/yr [(1)]
Authority for Requirement: DNR Construction Permit 05-A-803-S2
[(1)] The TPY emission limit is the predicted maximum fugitive LDAR controlled emissions from 949 valves, 42 pumps, 26 pressure relief valves, 314 connectors.

Pollutant: Acetaldehyde
Emission Limit(s): 0.08 ton/yr [(2)]
Authority for Requirement: DNR Construction Permit 05-A-803-S2

Pollutant: Total HAP
Emission Limit(s): 0.18 ton/yr [(2)]
Authority for Requirement: DNR Construction Permit 05-A-803-S2

[(2)] The emission limit is established to limit the HAP emissions below Title V thresholds.

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

Operating Limits

A. The owner or operator shall follow the applicable standards of NSPS Subpart VVa, 40 CFR 60.480a through 40 CFR 60.489a.
B. The component count shall be documented as to the number and types of components used. Components include, but are not limited to, valves, pumps, compressor seals, flanges, etc.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner or operator shall keep records as required in 40 CFR 60.486a, and reports as required in 40 CFR 60.487a.

B. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart VVa- *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*, specifically §60.486a and §60.487a.

C. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-*General Provisions* §§60.1 through 60.19.

D. Calculate and record VOC emissions based on the documented component count. Update the VOC emission calculations as the component count varies. Emission factors shall be based in EPA document 453/R-95-017 "Protocol for Equipment Leak Emission Estimates.

Authority for Requirement: DNR Construction Permit 05-A-803-S2

NSPS and NESHAP Applicability

Green Plains Holdings, Lakota is subject to the requirements and conditions of New Source Performance Standards (NSPS) Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 as specified in 40 CFR Part 60 §60.480a

The facility is subject to the requirements and conditions of NSPS Subpart A-General Provisions.
Authority for Requirement: DNR Construction Permit 05-A-803-S2

Monitoring Requirements

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

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
VOC	Yes	Emission Calculations & NSPS VVa	As specified in NSPS VVa Leak Detection Program. Frequency varies with component type (daily, weekly, monthly, etc.)
Single HAP	Yes	Emission Calculations & NSPS VVa	As specified in NSPS VVa Leak Detection Program. Frequency varies with component type (daily, weekly, monthly, etc.)
Total HAP	Yes	Emission Calculations & NSPS VVa	As specified in NSPS VVa Leak Detection Program. Frequency varies with component type (daily, weekly, monthly, etc.)

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-F100

Associated Equipment

Associated Emission Unit ID Numbers: EU-F100
Emissions Control Equipment ID Number: CE F100
Emissions Control Equipment Description: Sweeping/Washing
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-F100
Emission Unit Description: Truck Traffic
Raw Material/Fuel: NA
Rated Capacity: NA

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): No VE [1]
Authority for Requirement: DNR Construction Permit 05-A-805-S7
567 IAC 23.3(2) "c"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 7.24 tons/yr
Authority for Requirement: DNR Construction Permit 05-A-805-S7

Pollutant: Particulate Matter (PM)
Emission Limit(s): 27.92 tons/yr
Authority for Requirement: DNR Construction Permit 05-A-805-S7

[1] The owner or operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond lot line of the property.

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 DNR. Records shall be legible and maintained in an orderly manner.

A. All haul roads within the facility shall be paved with the exception of the road segment leading to and from the temporary grain piles.

B. Truck traffic on the haul road shall not exceed 10 mph. The speed limit shall be posted on the haul road.

C. Any spills on the road shall be cleaned up immediately.

D. The owner or operator shall update monthly the twelve-month rolling total of PM and PM10

emissions by adding up the calculated monthly emissions for the previous twelve months. The plant shall notify DNR immediately if the twelve-month rolling total exceeds 27.92 tons PM or 7.24 tons of PM10.

E. The Owner or operator shall maintain a log of each silt load/silt content sampling event that contains the following:

i. The date of silt load sampling event;
ii. The location of the sample taken;
iii. The measured silt content in grams;
iv. Sample area used for silt load sampling in meters; and,
v. The operator's initials.

Paved Roads:

F. Truck traffic emissions on the paved road shall be controlled by water flushing and sweeping Monday, Wednesday and Friday except as noted in Conditions (i) though (iv) below. The water spray rate shall be a minimum of 0.23 gallons per square yard.

i. If water flushing followed by sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during the daylight operating hours) will be less than 35° F (1.7° C) only sweeping is required. Water flushing and/or sweeping is not required for days of inclement weather.

ii. Paved road flushing and sweeping need not occur when a rain gauge located at the site indicates that at least 0.2 inches of precipitation (water equivalent) has occurred within the preceding 24-hr time period. However, paved road sweeping shall resume within 24-hours after the precipitation even has ended.

iii. Paved road flushing and sweeping need not occur when the facility experiences no haul road traffic on that calendar day.

i. Water flushing need not occur provided that the paved haul road emissions do not exceed 11.3 tons PM for the last twelve months. This shall be calculated using the formulas in Section L. Provided emissions as calculated in Section L remain below 11.3 tons for the last twelve months only Monday, Wednesday and Friday sweeping is required. In the event that the emissions exceed 11.3 tons for the last twelve months the plant shall be required to commence water flushing with sweeping until PM emissions fall below 11.3 tons for the last twelve months.

G. Silt load performance testing shall be completed annually during the second calendar quarter as specified by 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). Testing shall be completed prior to water flushing and/or sweeping it either is required for that day.

H. The owner/operator shall record the number of trucks that load/unload material on a monthly basis. Based on the number of trucks the total Vehicle Miles Traveled (VMT) shall be calculated for that month.

I. Record the frequency of sweeping preformed on the haul roads. If the roads are not swept due to weather, a written record must be kept on site outlining the conditions.

J. Performance testing on the haul road surface silt loading shall be annually during the second calendar. For each performance test, silt loading sampling shall be done for at least 3 different locations. Performance testing shall be completed prior to water flushing and/or sweeping, if required for that day.

K. The plant shall maintain a log for the haul roads that show the following:

i. The silt content of the road for that month based on testing;
ii. The date of the performance testing;
iii. The vehicle miles traveled (VMT) for that month;
iv. Each Monday, Wednesday and Friday record whether or not water flushing and sweeping was accomplished. For days w/o water flushing and /or sweeping record the circumstances (i.e. weather condition, equipment malfunction);
v. The amount of water applied, if required, and the areas treated;
vi. The operator's initials.

L. The owner or operator shall calculate and record monthly haul road emissions according to the following formulas. Which uses the equations from AP-42 Section 13.2.1, the empirical constants, and assumes a mean vehicle weight of 27.7 tons. (NOTE: silt load testing is required annual during the second calendar quarter. The "sL" value determined during silt load testing shall be used for each successive month that testing is not required. For example, the tested sL value for April would be used in the equations for May and June etc.).

$$E_{PM} = \frac{0.011(sL)^{0.91} * W^{1.02} * VMT}{2000}$$

Where E = tons PM per month

sL= road surface silt loading (g/m2) for each quarterly performance test

VMT = vehicle miles traveled (monthly)

W= mean vehicle weight, assume 27.7 tons

$$E_{PM_{10}} = \frac{0.0022(sL)^{0.91} * W^{1.02} * VMT}{2000}$$

Where E = tons PM per month

sL= road surface silt loading (g/m2) for each quarterly performance test

VMT = vehicle miles traveled (monthly)

W= mean vehicle weight, assume 27.7 tons

Unpaved Roads:

M. The unpaved road segment shall only be used for activities related to moving grain to and from the temporary grain piles or for other use on a short-term basis provided the information required for the calculations in Section O are recorded.

N. Silt content sampling of the unpaved road surface as specified by 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) shall be conducted at least once each calendar year during which grain is delivered to or removed from the temporary grain piles. This sampling shall be performed during the period of time of grain delivery to or removal from the temporary grain piles. If grain delivery to or removal from the temporary storage piles occurs during more than 3 months in a calendar year, one additional silt content sample shall be taken for every three additional months of grain delivery or removal activities that occur during that calendar year. After a minimum of 4 samples are analyzed, if the variability between the samples is less than 25%, then no additional sampling is required. If the variability of the samples is greater than 25%, then sampling shall be continued until a total of 8 samples have been obtained. After 8 samples have been obtained and analyzed, no additional sampling would be required.

O. The owner or operator shall calculate and record the monthly haul road emissions according to the following formulas, which uses the equations from AP-42 Section 13.2.2, the empirical constants, and assumes a mean vehicle weight of 27.7 tons. (NOTE: The "s" value determined during the current operating season shall be used. If multiple samples are taken during the same season the most recent value shall be used. After testing required above is completed, the average silt content from all samples shall be used in this calculation).

$$E_{PM} = \frac{13.3 * (s/12)0.7] * \text{VMT} * 0.71}{2000}$$

Where E = tons PM per month

sL = road surface silt content (%) for each performance test

VMT = Vehicle miles traveled

$$E_{PM_{10}} = \frac{4.07 * (s/12)0.9] * VMT * 0.71}{2000}$$

Where E = tons PM_{10} per month

sL = road surface silt content (%) for each performance test

VMT = Vehicle miles traveled

Authority for Requirement: DNR Construction Permit 05-A-805-S7

Emission Point Characteristics

Emissions from this unit are fugitive emissions generated by vehicle traffic on roadways inside the facility.

Authority for Requirement: DNR Construction Permit 05-A-805-S7

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-G1916

Associated Equipment

Associated Emission Unit ID Numbers: EU-G1916
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-G1916
Emission Unit Description: Emergency Diesel Generator
Raw Material/Fuel: Diesel
Rated Capacity: 269 hp; Maximum 500 hr/yr

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): 0.15 g/HP-hr
Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2) "yyy"

Pollutant: Nitrogen Oxides (NO_x) and non-Methane Hydrocarbons (NMHC)
Emission Limit(s): 3.00 g/HP-hr
Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2) "yyy"

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 2.6 g/HP-hr
Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2) "yyy"

Operational Limits & Requirements

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

Operating Limits

A. This emission unit is limited to 500 hours of operation per 12-month rolling period.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. Record the operating hours of the Emergency Generator on a monthly basis and calculate the twelve-month rolling total.

NSPS and NESHAP Applicability

NSPS:

This emission point is subject to NSPS Subpart A – General Provisions and NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Authority for Requirement: 567 IAC 23.1(2) "yyy"

Emission Standards (for engines with displacement (L/cyl) < 10):
According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (l/cyl)	Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM	Opacity	Rule Ref
Disp. < 10	kW < 8 (HP < 11)	2007	7.5 (5.6)	8.0 (6.0)	0.80 (0.60)	(1)	(2)
		2008+			0.40 (0.30)		(3)
	8 ≤ kW < 19 (11 ≤ HP < 25)	2007		6.6 (4.9)	0.80 (0.60)		(2)
		2008+			0.40 (0.30)		(3)
	19 ≤ kW < 37 (25 ≤ HP < 50)	2007		5.5 (4.1)	0.60 (0.45)		(2)
		2008+			0.30 (0.22)		(3)
	37 ≤ kW < 75 (50 ≤ HP < 100)	2007	7.5 (5.6)	5.0 (3.7)	0.40 (0.30)		(2)
		2008+	4.7 (3.5)				
	75 ≤ kW < 130 (100 ≤ HP < 175)	2007+	4.0 (3.0)	5.0 (3.7)	0.30 (0.22)		
	130 ≤ kW < 225 (175 ≤ HP < 302)			3.5 (2.6)	0.20 (0.15)		
	225 ≤ kW < 450 (302 ≤ HP < 604)						
	450 ≤ kW < 560 (604 ≤ HP < 751)						
	560 < kW ≤ 2237 (751 < HP ≤ 3000)		6.4 (4.8)				
	2237 < kW (3000 < HP)	2007 - 2010	HC: 1.3 (1.0) NOx: 9.2 (6.9)	11.4 (8.5)	0.54 (0.40	-	(4)
		2011+	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)	(1)	(2)

(1) Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.
(2) 40 CFR 89.112 and 40 CFR 89.113.
(3) Table 2 to Subpart IIII and 40 CFR 1039.105.
(4) Table 1 to Subpart IIII.

Emission Standards (for engines with 10 ≤ Displacement (l/cyl) < 30):
According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (liters/cylinder)	Maximum Engine Power	Model Year	HC + NOx	CO	PM	Rule Ref
10 ≤ Disp. < 15	All power levels	2007 - 2012	7.8 (5.8)	5.0 (3.7)	0.27 (0.20)	(1)
	kW < 2000 (HP < 2682)	2013+	6.2 (4.6)		0.14 (0.10)	(2)
	2000 ≤ kW < 3700 (2682 ≤ HP < 4962)		7.8 (5.8)			
	3700 ≤ kW (4962 ≤ HP)				0.27 (0.20)	(1)
15 ≤ Disp. < 20	kW < 3300 (HP < 4425)	2007 - 2012	8.7 (6.5)	5.0 (3.7)	0.5 (0.37)	(1)
	3300 ≤ kW (4425 ≤ HP)		9.8 (7.3)			
	All power levels	2013	9.8 (7.3)			
	kW < 2000 (HP < 2682)	2014+	7.0 (5.2)		0.34 (0.25)	(2)
	2000 ≤ kW (2682 ≤ HP)		9.8 (7.3)		0.5 (0.37)	(1)
20 ≤ Disp. < 25	All power levels	2007 - 2013	9.8 (7.3)	5.0 (3.7)	0.5 (0.37)	(1)
	kW < 2000 (HP < 2682)	2014+			0.27 (0.20)	(2)
	2000 ≤ kW (2682 ≤ HP)				0.5 (0.37)	(1)
25 ≤ Disp. < 30	All power levels	2007 - 2013	11.0 (8.2)	5.0 (3.7)	0.5 (0.37)	(1)
	kW < 2000 (HP < 2682)	2014+	9.8 (7.3)		0.27 (0.20)	(2)
	2000 ≤ kW (2682 ≤ HP)		11.0 (8.2)		0.5 (0.37)	(1)

(1) 40 CFR 94.8.
(2) 40 CFR 1042.101.

Fuel Requirements:
You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 80.510(b).

Compliance Requirements:
1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
    a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;

b) Changing only those emission-related settings that are permitted by the manufacturer; and
c) Meeting the requirements of 40 CFR 89, 94 and/or 1068, as they apply to you.

2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).
3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance 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 the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You 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 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
HP < 100	Within 1 year of non-permitted action [(1)]	Not required
100 ≤ HP ≤ 500	Within 1 year of engine startup, or non-permitted action [(1)]	Not required
500 < HP	Within 1 year of engine startup, or non-permitted action [(1)]	Every 8,760 hours or 3 years, whichever comes first

[(1)] Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

Operating and Recordkeeping Requirements

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 40.4209(a)) and, starting with the model years in the following table, you must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. 40 CFR 40.4214(b).

Engine power	Starting model year
19 ≤ KW < 56 (25 ≤ HP < 75)	2013
56 ≤ KW < 130 (75 ≤ HP < 175)	2012
130 ≤ KW (175 ≤ HP)	2011

2. There is no time limit on use for emergency situations. 40 CFR 60.4211(f)(1).

3. The engine may be operated for the purpose of maintenance checks and readiness testing, emergency demand response, and deviation of voltage or frequency for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or non-emergency demand response or 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. See 40 CFR 60.4211(f)(3) for more information.
5. If your emergency engine has a maximum engine power of more than 100 HP and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) or operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), you must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). See 40 CFR 60.4214(d) for more information.

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-P1916

Associated Equipment

Associated Emission Unit ID Numbers: EU-P1916
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P1916
Emission Unit Description: Emergency Fire Pump
Raw Material/Fuel: Diesel
Rated Capacity: 252 hp; Maximum 500 hr/yr

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): 0.40 g/HP-hr
Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2) "yyy"

Pollutant: Nitrogen Oxides (NO_x) & non-Methane Hydrocarbons (NMHC)
Emission Limit(s): 7.8 g/HP-hr
Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2) "yyy"

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 2.6 g/HP-hr
Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2) "yyy"

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

Operating Limits

A. This emission unit is limited to 500 hours of operation per 12-month rolling period.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. Record the operating hours of the Fire Pump on a monthly basis and calculate the twelve-month rolling total.

NSPS and NESHAP Applicability

NSPS:

This emission point is subject to NSPS Subpart A – General Provisions and NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Authority for Requirement: 567 IAC 23.1(2) "yyy"

Emission Standards (for engines with displacement (L/cyl) < 10):
According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (l/cyl)	Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM	Opacity	Rule Ref
Disp. < 10	kW < 8 (HP < 11)	2007	7.5 (5.6)	8.0 (6.0)	0.80 (0.60)	(1)	(2)
		2008+			0.40 (0.30)		(3)
	8 ≤ kW < 19 (11 ≤ HP < 25)	2007		6.6 (4.9)	0.80 (0.60)		(2)
		2008+			0.40 (0.30)		(3)
	19 ≤ kW < 37 (25 ≤ HP < 50)	2007		5.5 (4.1)	0.60 (0.45)		(2)
		2008+			0.30 (0.22)		(3)
	37 ≤ kW < 75 (50 ≤ HP < 100)	2007	7.5 (5.6)	5.0 (3.7)	0.40 (0.30)		(2)
		2008+	4.7 (3.5)				
	75 ≤ kW < 130 (100 ≤ HP < 175)	2007+	4.0 (3.0)	5.0 (3.7)	0.30 (0.22)		
	130 ≤ kW < 225 (175 ≤ HP < 302)			3.5 (2.6)	0.20 (0.15)		
	225 ≤ kW < 450 (302 ≤ HP < 604)						
	450 ≤ kW < 560 (604 ≤ HP < 751)						
	560 < kW ≤ 2237 (751 < HP ≤ 3000)		6.4 (4.8)				
	2237 < kW (3000 < HP)	2007 - 2010	HC: 1.3 (1.0) NOx: 9.2 (6.9)	11.4 (8.5)	0.54 (0.40	-	(4)
		2011+	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)	(1)	(2)

(1) Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.
(2) 40 CFR 89.112 and 40 CFR 89.113.
(3) Table 2 to Subpart IIII and 40 CFR 1039.105.
(4) Table 1 to Subpart IIII.

Emission Standards (for engines with 10 ≤ Displacement (l/cyl) < 30):
According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (liters/cylinder)	Maximum Engine Power	Model Year	HC + NOx	CO	PM	Rule Ref
10 ≤ Disp. < 15	All power levels	2007 - 2012	7.8 (5.8)	5.0 (3.7)	0.27 (0.20)	(1)
	kW < 2000 (HP < 2682)	2013+	6.2 (4.6)		0.14 (0.10)	(2)
	2000 ≤ kW < 3700 (2682 ≤ HP < 4962)		7.8 (5.8)			
	3700 ≤ kW (4962 ≤ HP)				0.27 (0.20)	(1)
15 ≤ Disp. < 20	kW < 3300 (HP < 4425)	2007 - 2012	8.7 (6.5)	5.0 (3.7)	0.5 (0.37)	(1)
	3300 ≤ kW (4425 ≤ HP)		9.8 (7.3)			
	All power levels	2013	9.8 (7.3)			
	kW < 2000 (HP < 2682)	2014+	7.0 (5.2)		0.34 (0.25)	(2)
	2000 ≤ kW (2682 ≤ HP)		9.8 (7.3)		0.5 (0.37)	(1)
20 ≤ Disp. < 25	All power levels	2007 - 2013	9.8 (7.3)	5.0 (3.7)	0.5 (0.37)	(1)
	kW < 2000 (HP < 2682)	2014+			0.27 (0.20)	(2)
	2000 ≤ kW (2682 ≤ HP)				0.5 (0.37)	(1)
25 ≤ Disp. < 30	All power levels	2007 - 2013	11.0 (8.2)	5.0 (3.7)	0.5 (0.37)	(1)
	kW < 2000 (HP < 2682)	2014+	9.8 (7.3)		0.27 (0.20)	(2)
	2000 ≤ kW (2682 ≤ HP)		11.0 (8.2)		0.5 (0.37)	(1)

(1) 40 CFR 94.8.
(2) 40 CFR 1042.101.

Fuel Requirements:
You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 80.510(b).

Compliance Requirements:
4. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
    a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
    b) Changing only those emission-related settings that are permitted by the manufacturer; and
    c) Meeting the requirements of 40 CFR 89, 94 and/or 1068, as they apply to you.
5. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).

6. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance 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 the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You 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 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
HP < 100	Within 1 year of non-permitted action [(1)]	Not required
100 ≤ HP ≤ 500	Within 1 year of engine startup, or non-permitted action [(1)]	Not required
500 < HP	Within 1 year of engine startup, or non-permitted action [(1)]	Every 8,760 hours or 3 years, whichever comes first

[(1)] Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

Operating and Recordkeeping Requirements

6. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 40.4209(a)) and, starting with the model years in the following table, you must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. 40 CFR 40.4214(b).

Engine power	Starting model year
19 ≤ KW < 56 (25 ≤ HP < 75)	2013
56 ≤ KW < 130 (75 ≤ HP < 175)	2012
130 ≤ KW (175 ≤ HP)	2011

7. There is no time limit on use for emergency situations. 40 CFR 60.4211(f)(1).
8. The engine may be operated for the purpose of maintenance checks and readiness testing, emergency demand response, and deviation of voltage or frequency for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
9. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or non-emergency demand response or 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. See 40 CFR 60.4211(f)(3) for more information.

10. If your emergency engine has a maximum engine power of more than 100 HP and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii) or operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), you must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). See 40 CFR 60.4214(d) for more information.

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-S12

Associated Equipment

Associated Emission Unit ID Numbers: EU-S12
Emissions Control Equipment ID Number: CE-S12
Emissions Control Equipment Description: Low NO_x Burner
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-S12
Emission Unit Description: Natural Gas Boiler
Raw Material/Fuel: Natural Gas
Rated Capacity: 75.3 MMBtu/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"

(1) An exceedance of the indicator opacity 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 10 (PM_{10})
Emission Limit(s): 0.68 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-321

Pollutant: Particulate Matter- State (PM)
Emission Limit(s): 0.68 lb/hr; 0.6 lb/MMBtu
Authority for Requirement: DNR Construction Permit 15-A-321
567 IAC 23.3"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-321
567 IAC 23.3(3) "e"

Operational Limits & Requirements

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

Operating Limits

Operating limits for this emission unit shall be:

A. This emission unit shall burn natural gas only as the fuel.
B. The control equipment shall be maintained per manufacturer's recommendations.

Reporting and Recordkeeping

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 DNR. Records shall be legible and maintained in an orderly manner.

A. The owner/operator shall maintain records of the fuel used in the emission unit.
B. The owner/operator shall maintain records of maintenance performed on the control equipment.

Authority for Requirement: DNR Construction Permit 15-A-321

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 65
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 14,100
Exhaust Temperature (°F): 305
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-321

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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: S10c

Associated Equipment

Emission Unit	Raw Material	Capacity	Control Equipment
DDGS Dryer C	Natural Gas	90 MMBtu/hr	Regenerative Thermal Oxidizer, RTO (C10c)
Distillation Process (EU P10b)			Regenerative Thermal Oxidizer, RTO (C10c)
Beer Column	Beer	725 gpm	
Molecular Sieve Bottles Train #2 (#1 - #2)	Ethanol	120 gpm	
Centrifuges	Centrifuge Feed	730 gpm	
Thin Stillage Evaporators	Thin Stillage	250 gpm	
Molecular Sieve Bottles Train #1 (#4 - #6) (secondary)	Ethanol	120 gpm	From Train 1 Centrate Blower (B-550) Primary control using Thermal Oxidizer (C10) Optional, Secondary control using Regenerative Thermal Oxidizer, RTO (C10c)
Slurry Tank #1 (secondary)	Mash	17,500 gallons	
Yeast Tank #1 (secondary)	Yeast	17,500 gallons	
Regen Tank (Train #1) (secondary)	Beer	600 gallons	
Centrate Tank #1(secondary)	Centrifuge Feed	1,000 gallons	
CIP Tank Train #1 (secondary)	Ethanol	17,500 gallons	
Centrate Tank #2	Centrifuge Feed	730 gpm	From Train 2 Centrate Blower (B-2550) Primary control using Regenerative Thermal Oxidizer (C10c) Optional, Secondary control using Thermal Oxidizer (C10)
Centrifuge Drag Conveyor Train #2	Centrifuge Feed	730 gpm	
Slurry Tank #2	Mash	20,055 gallons	From Yeast Prop Blower (B-2370) Primary control using Regenerative Thermal Oxidizer (C10c) Optional, Secondary control using Thermal Oxidizer (C10)
CIP Tank Train #2	Ethanol	20,055 gallons	
Yeast Tank #2	Yeast	20,055 gallons	
SMT Tank	Mash	14,000 gallons	From SMT Blower Primary control using RTO (C10c) Optional, Secondary control using Thermal Oxidizer (C10)

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-176-S1

[(1)] An exceedance of the indicator opacity of "10%" will require the owner/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 DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM_{10}
Emission Limit(s): 4.47 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-176-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 4.47 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permit 17-A-176-S1

Pollutant: NO_x
Emission Limit(s): 13.8 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-176-S1

Pollutant: SO_2
Emission Limit(s): 6.23 lb/hr, 500 ppm_v
Authority for Requirement: 567 IAC 23.3(3)
DNR Construction Permit 17-A-176-S1

Pollutant: CO
Emission Limit(s): 9.36 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-176-S1

Pollutant: VOC
Emission Limit(s): 6.50 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-176-S1

Pollutant: Acetaldehyde
Emission Limit(s): 0.82 lb/hr[(3)]
Authority for Requirement: DNR Construction Permit 17-A-176-S1

Pollutant: Individual HAPs[(2)(3)]
Emission Limit(s): 0.82 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-176-S1

Pollutant: Total HAPs
Emission Limit(s): 1.85 lb/hr[3]
Authority for Requirement: DNR Construction Permit 17-A-176-S1

[2] The specific Individual HAP are acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of the individual HAPs.
[3] Emission limit listed is the sum of the emission rates for EP S10c and EP S70b, combined.

Operational Limits with Associated Recordkeeping

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

A. The regenerative thermal oxidizer (RTO) shall maintain a temperature (3-hour average) during operation no less than 50 degrees Fahrenheit below the average temperature of the oxidizer recorded during the most recent performance test which demonstrated compliance with the emission limits.
   i. The regenerative thermal oxidizer (RTO) shall be operated at all times DDGS dryers C or the distillation equipment listed in Permit Condition 2 that are controlled only by the RTO, are in operation
   ii. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the regenerative thermal oxidizer (RTO). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per a written facility-specific operation and maintenance plan.
   iii. The owner or operator shall keep hourly records of the operating temperature of the RTO, and record all three hour periods (during actual operation) during which the average temperature of the RTO is more than 50 degrees Fahrenheit (50^{o}F) below the average temperature of the RTO during most recent performance test which demonstrated compliance with the emission limits.
   iv. This requirement shall not apply on the days the RTO, or the equipment the RTO controls, are not in operation.

B. The dryer and RTO shall combust only natural gas and/or process off-gasses.

C. The owner or operator shall keep records of the frequency and amount of time the thermal oxidizer malfunctions and estimate the emissions emitted during these malfunctions.

D. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

E. The owner or operator shall conduct an inspection of the emission units and the associated control equipment, at a minimum of once per year and correct/repair any issues discovered during the inspection. The owner or operator shall maintain a log of all inspections and maintenance activities performed on the emission units and the associated control equipment. This log shall include, but is not necessarily limited to:

i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
ii. Any issues identified during the inspection and the date each issue was resolved;
iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and,
iv. Identification of the staff person performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 17-A-176-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 125
Stack Opening, (inches, dia.): 84
Exhaust Flow Rate (scfm): 59,700
Exhaust Temperature (°F): 275
Discharge Style: Vertical unobstructed
Authority for Requirement: DNR Construction Permit 17-A-176-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

Pollutant	Compliance Methodology	Frequency[7]	Test Run Time	Test Method
NOx	Stack Test[1]	Once every 12 months	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	Stack Test[3]	Once every 12 months	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Acetaldehyde	Stack Test[4][5]	Once every 12 months[6]	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Individual HAP[2]	Stack Test[4][5]	Once every 12 months[6]	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
Total HAP	Stack Test[4][5]	Once every 12 months[6]	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320

[1] Stack testing is required for NO_X when the facility conducts the required VOC compliance testing.
[2] Acrolein, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, formaldehyde and methanol, any HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst-case scenario.
[3] The facility shall either conduct representative annual stack testing for the DDGS Dryers (EP S10 and EP S10c) or conduct annual stack testing on the both emission points (EP S10 and EP S10c). In both cases, the required testing shall have a minimum of six (6) months between each test. Should the owner or operator decide to conduct representative compliance testing, the

compliance status determined from that compliance test shall be considered representative for the other emission point. The owner or operator shall alternate the testing of these emission sources (EP S10 and EP S10c), so that each point will be tested once every other calendar year (i.e., alternate years for conducting compliance tests).
(4) The stack testing for these emission units venting through EP S70b shall be conducted simultaneously with the stack testing for the emission units venting through EP S10c. The tested emission rates shall be summed together to determine compliance with the applicable emission limit in Permit Condition 1.
(5) The facility shall either conduct representative annual stack testing for the Train #1 sources (EP S70 and EP S10) and Train #2 sources (EP S70b and EP S10c) or conduct annual stack testing on the Train #1 sources and Train #2 sources. In both cases, the required testing shall have a minimum of six (6) months between each test.
(6) Should the owner or operator decide to conduct representative compliance testing, the compliance status determined from that compliance test shall be considered representative for the other emission source group. The owner or operator shall alternate the testing of these emission sources (Train #1 and Train #2), so that each point will be tested once every other calendar year (i.e., alternate years for conducting compliance tests).
(7) Upon issuance of this permit renewal, the facility will conduct the required stack testing within 90 days following the re-start of the equipment controlled by S10c

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

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.

The data pertaining to the plan shall be 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)

Compliance Assurance Monitoring Plan for Valero Renewable Fuels Company, LLC dba Valero Lakota Plant

EP S10c – Train 2 Regenerative Thermal Oxidizer

I. Background

A. Emissions Unit

Description: DDGS Dryer 2 (EU P10c)
Distillation Process (EU P10d)

Facility: Valero Renewable Fuels Company, LLC dba Valero Lakota Plant

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	Construction Permit # 17-A-176-S1
PM Emission Limits:	4.47 lb/hr/0.1 gr/dscf
PM_{10} Emission Limit:	4.47 lb/hr
VOC Emission Limit:	6.50 lbs/hr
HAP Emission Limits:	0.82 lb/hr[(1)] Acetaldehyde
	0.82 lb/hr[(1)] Individual HAP
	1.85 lb/hr[(1)] Total HAP

[(1)] Emission limit listed is the sum of the emission rates for EP S10c and EP S70b, combined.

Current Monitoring Requirements: Annual stack testing
Maintain hourly records of combustion chamber temperature

C. Control Technology

Regenerative Thermal Oxidizer (RTO)

II. Regenerative Thermal Oxidizer (C10c) Monitoring Approach

A. Indicator

Combustion chamber temperature and an annual internal inspection will be used as indicators.

B. Measurement Approach

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1.

Table 1. Monitoring Approach

	Indicator No. 1	Indicator No. 2
I. Indicator	Combustion Chamber Temperature.	Work Practice/Inspection.

	Indicator No. 1	Indicator No. 2
Measurement Approach	The temperature measured in the combustion chamber by the continuous temperature monitor (thermocouple).	Inspection and maintenance of the burner to ensure structural integrity and ensure proper operation.
II. Indicator Range	An excursion is defined as 3-hour rolling average temperature readings 50° F less than the average temperature recorded during the most recent compliance performance test.	An excursion is defined as failure to perform annual inspection or any finding that the structural integrity of the burner has been jeopardized and it no longer operates as designed.
Corrective Action	Each excursion triggers an inspection, corrective action, and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action, and a reporting requirement.
QIP Threshold	An accumulation of excursions below the indicator range exceeding 5 percent of operating time for a reporting period excluding periods of startup, shutdown and malfunction.	Not applicable.
III. Performance Criteria		
A. Data Representativeness	The sensor is located in the incinerator combustion chamber as an integral part of the incinerator design. The minimum tolerance of the thermocouple is ± 4 degrees F or ± 0.75% (of the temperature measured in degrees Celsius), whichever is greater.	Not applicable.
B. Verification of Operational Status	Temperatures recorded electronically	Inspection records.
C. QA/QC Practices and Criteria	Operate instrumentation in accordance with manufacturer's recommendation. The accuracy of the thermocouple will be checked weekly using redundant thermocouples to verify the two temperatures agree within 30 degrees F.	Not applicable.
D. Monitoring Frequency	The combustion temperature is measured continuously.	Annual inspection of the burner.
Data Collection Procedures	Record chamber temperature continuously on electronic media.	Record results of inspections.
Averaging period	Three (3) hour rolling average.	Not applicable.
E. Record Keeping	Maintain for a period of 2 years records of electronic media and corrective actions taken in response to excursions.	Maintain for a period of 2 years records of inspections and corrective actions taken in response to excursions.
F. Reporting	Number, duration, and cause of any excursion and the corrective action taken.	Number, duration, and cause of any excursion and the corrective action taken.

	Indicator No. 1	Indicator No. 2
Frequency	Semiannually, if required.	Semiannually, if required.

III. Justification

A. Background

VOC emissions from Train 2 DDGS Dryer 2 (P10c) and Distillation Process (P10d) are controlled by the RTO.

B. Rationale for Selection of Performance Indicator

The control efficiency achieved by a regenerative thermal oxidizer is a function of the combustion chamber temperature. It is expected that by maintaining the operating temperature at or above the minimum chamber temperature, the required level of VOC control efficiency can be expected to be achieved.

The work practice of an annual inspection and tuning of the incinerator burner was selected because an inspection verifies equipment integrity and periodic tuning will maintain proper burner operation and efficiency.

C. Rationale for Selection of Indicator Level

The minimum operating temperature of the RTO is based on the average temperature recorded during the most recent VOC performance testing that demonstrated compliance with permit limits.

Emission Point ID Number: EP-GT01

Associated Equipment

Associated Emission Unit ID Numbers: EU-GT01

Emission Unit vented through this Emission Point: EU-GT01
Emission Unit Description: Gasoline Storage Tank
Raw Material/Fuel: Gasoline
Rated Capacity: 250 Gallons

Applicable Requirements

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

This emission point is subject to 40 CFR 63 Subpart CCCCCC National Emissions Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. According to 40 CFR 63.11112(d), this storage tank, located at an area source, is an existing storage tank as it was constructed prior to November 9. 2016.

Authority for Requirement: 40 CFR 63 Subpart CCCCCC

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. *567 IAC 22.110(1)*

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 Section 114 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) 725-9545

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 Street SE
Cedar Rapids, IA 52401
(319) 892-6000

V. Appendices

A. 40 CFR Part 60 Subpart A – General Provisions
http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr60_main_02.tpl

B. 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
http://www.ecfr.gov/cgi-bin/text-idx?SID=2793856ec64f17bec8398e0ef611f807&node=sp40.7.60.d_0b&rgn=div6

C. 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
http://www.tceq.texas.gov/permitting/air/rules/federal/60/dchp.html

D. 40 CFR Part 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced After July 23, 1984
http://www.ecfr.gov/cgi-bin/text-idx?SID=2793856ec64f17bec8398e0ef611f807&node=sp40.7.60.k_0b&rgn=div6

E. 40 CFR Part 60 Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006.
http://tceq.state.tx.us/permitting/air/rules/federal/60/vvahp.html

F. 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
http://www.ecfr.gov/cgi-bin/text-idx?SID=2793856ec64f17bec8398e0ef611f807&node=sp40.7.60.iiii&rgn=div6