Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: John Deere Product Engineering Center
Facility Location: 6725 Cedar Heights Drive, Cedar Falls, IA 50613
Air Quality Operating Permit Number: 05-TV-004R3-M001
Expiration Date: 10/6/2026

Permit Renewal Application Deadline: 4/6/2026

EIQ Number: 92-5615
Facility File Number: 07-01-087

Responsible Official
Name: Mr. Russell Jerome
Title: Manager, Ag Component & Subsystems PV&V
Mailing Address: P.O. Box 8000, Waterloo, IA 50704
Phone #: (319) 292-8569

Permit Contact Person for the Facility
Name: Mr. Anthony Goettsch
Title: Senior Regulatory Specialist, Air
Mailing Address: P.O. Box 8000, Waterloo, IA 50704
Phone #: (319) 292-4026

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 24, and is issued subject to the terms and conditions contained in this permit. Two Title V Permits have been issued for the John Deere Product Engineering Center and the John Deere Engine Works (which are considered one stationary source). This permit is for the John Deere Product Engineering Center. A separate permit has been issued for John Deere Engine Works.

For the Director of the Department of Natural Resources

Marnie Stein

11/13/2024

Marnie Stein, Supervisor of Air Operating Permits Section — Date

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Abbreviations

acfm.....actual cubic feet per minute
BACT.....Best Available Control Technology
CE .....control equipment
CEM.....continuous emission monitor
CFR.....Code of Federal Regulation
^{o}F.....degrees Fahrenheit
EP.....emission point
EU .....emission unit
EIQ.....emissions inventory questionnaire
ft^3/hr .....cubic foot per hour
gal/hr .....gallons per hour
gr./dscf .....grains per dry standard cubic foot
hp.....horsepower
IAC.....Iowa Administrative Code
IDNR.....Iowa Department of Natural Resources
MMBTU/hr.....million British Thermal Unit per hour
MMcf/hr.....million cubic feet per hour
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS.....new source performance standard
ppmv .....parts per million by volume
lbs./gal.....pounds per gallon
lb./hr.....pounds per hour
lb./MMBtu .....pounds per million British thermal units
PSD .....Prevention of Significant Deterioration
SCC.....Source Classification Codes
scfm.....standard cubic feet per minute
SIC .....Standard Industrial Classification
tpy .....tons per year
ton/yr. .....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: John Deere Product Engineering Center
Permit Number: 05-TV-004R3-M001

Facility Description: Farm Machinery and Equipment (SIC 3523)

Equipment List

A. Engine Test Cells

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	IDNR Construction Permit
1A06	1A06	Tilt Table Engine Test Cell	16-A-057-S5
1A06-BB	1A06	Tilt Table Engine Test Cell	18-A-038-S4
2A01	2A01	P&E Engine Test Cell	04-A-721-P4
2A01-BB	2A01	Crankcase Ventilation	18-A-664-P2
2A02	2A02	P&E Engine Test Cell	04-A-722-P5
2A02-BB	2A02	Crankcase Ventilation	18-A-665-P3
2A03a	2A03	P&E Engine Test Cell	06-A-712-S4
2A03b	2A03	P&E Engine Test Cell	05-A-595-S5
2A03-BB	2A03	Crankcase Ventilation	18-A-039-S3
2A04a	2A04	P&E Engine Test Cell	06-A-713-S3
2A04b	2A04	P&E Engine Test Cell	05-A-596-S4
2A04-BB	2A04	Crankcase Ventilation	18-A-040-S2
2A06	2A06	P&E Engine Test Cell	18-A-623-S2
2A06-BB	2A06	Crankcase Ventilation	18-A-624-S2
2A07a	2A07	P&E Engine Test Cell	18-A-625-S5
2A07b	2A07	P&E Engine Test Cell	18-A-626-S5
2A07-BB	2A07	Crankcase Ventilation	18-A-627-S5
2A08a	2A08	P&E Engine Test Cell	06-A-714-S5
2A08b	2A08	P&E Engine Test Cell	06-A-715-S5
2A08-BB	2A08	Crankcase Ventilation	18-A-628-S4
2A09	2A09	P&E Engine Test Cell	18-A-629-S2
2A09-BB	2A09	Crankcase Ventilation	18-A-630-S2
2A10	2A10	P&E Engine Test Cell	18-A-631-S2
2A10-BB	2A10	Crankcase Ventilation	18-A-632-S2
2AN01 (2A12)	2AN01 (2A12)	P&E Engine Test Cell	04-A-725-P5
2AN01 (2A12)-BB	2AN01 (2A12)	Crankcase Ventilation	18-A-676-P2

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	IDNR Construction Permit
2AN03 (2A13)	2AN03 (2A13)	P&E Engine Test Cell	04-A-728-P5
2AN03 (2A13)-BB	2AN03 (2A12)	Crankcase Ventilation	18-A-677-P2
2AN08 (2AX12)	2AN08 (2AX12)	P&E Engine Test Cell	04-A-729-P5
2AN08 (2AX12-BB	2AN8 (2AX12)	Crankcase Ventilation	18-A-678-P2
2AN10 (2AX11)a	2AN10 (2AX11)	P&E Engine Test Cell	04-A-731-P5
2AN10 (2AX11)b	2AN10 (2AX11)	P&E Engine Test Cell	04-A-732-P4
2AN10 (2AX11)-BB	2AN10 (2AX11)	Crankcase Ventilation	18-A-679-P2
2AN11 (2AX10)	2AN11 (2AX10)	P&E Engine Test Cell	04-A-734-P5
2AN11 (2AX10)-BB	2AN11 (2AX10)	Crankcase Ventilation	18-A-680-P3
2AN13 (2AX9)	2AN13 (2AX9)	P&E Engine Test Cell	04-A-736-P4
2AN13 (2AX9)-BB	2AN13 (2AX9)	Crankcase Ventilation	18-A-681-P4
2AX01	AX01	P&E Engine Test Cell	04-A-775-S4
2AX01-BB	AX01	Crankcase Ventilation	18-A-633-S2
2AX02	AX02	P&E Engine Test Cell	04-A-776-S4
2AX02-BB	AX02	Crankcase Ventilation	18-A-634-S2
2AX03	2AX03	P&E Engine Test Cell	04-A-777-S4
2AX03-BB	2AX03	Crankcase Ventilation	18-A-635-S2
2AX04	2AX04	P&E Engine Test Cell	04-A-778-S4
2AX04-BB	2AX04	Crankcase Ventilation	18-A-636-S2
2AX05	2AX05	P&E Engine Test Cell	04-A-779-S4
2AX05-BB	2AX05	Crankcase Ventilation	18-A-637-S2
2AX06	2AX06	P&E Engine Test Cell	04-A-780-S4
2AX06-BB	2AX06	Crankcase Ventilation	18-A-638-S2
2AX07	2AX07	P&E Engine Test Cell	04-A-781-S7
2AX07-BB	2AX07	Crankcase Ventilation	18-A-639-S5
2AX08	2AX08	P&E Engine Test Cell	04-A-782-S6
2AX08-BB	2AX08	Crankcase Ventilation	18-A-640-S4
2N02	2N02	P&E Engine Test Cell	18-A-644-S2
2N02-BB	2N02	Crankcase Ventilation	18-A-645-S2
2N03	2N03	P&E Engine Test Cell	18-A-646-S2
2N03-BB	2N03	Crankcase Ventilation	18-A-647-S2

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	IDNR Construction Permit
2N04	2N04	P&E Engine Test Cell	18-A-648-S2
2N04-BB	2N04	Crankcase Ventilation	18-A-649-S2
2N05	2N05	P&E Engine Test Cell	07-A-487-S6
2N05-BB	2N05	Crankcase Ventilation	18-A-650-S4
2N06	2N06	P&E Engine Test Cell	11-A-403-S3
2N06-BB	2N06	Crankcase Ventilation	18-A-652-S2
2B01	2B01	P&E Engine Test Cell	04-A-738-P4
2B01-BB	2B01	Crankcase Ventilation	18-A-682-P2
2N07	2N07	Sound Room Engine Test Cell	18-A-653-S5
2N07-BB	2N07	Crankcase Ventilation	18-A-654-S5
2N08	2N08	Cold Room Engine Test Cell	18-A-692-S4
2N10a	2N10	Cold Room Engine Test Cell	18-A-693-S4
2N10b	2N10	Cold Room Engine Test Cell	18-A-694-S4
2N10c	2N10	Cold Room Engine Test Cell	18-A-695-S4
2N10d	2N10	Cold Room Engine Test Cell	18-A-696-S4
2NX15	2NX15	Gen Set Engine Test Cell	04-A-767-P4
2NX15-BB	2NX15	Gen Set Engine Test Cell	18-A-686-P2
2E01	2E01	PV&V Engine Test Cell	04-A-788-S6
2E02	2E02	PV&V Engine Test Cell	04-A-789-S4
2E03	2E03	PV&V Engine Test Cell	04-A-790-S4
2E04	2E04	PV&V Engine Test Cell	04-A-791-S4
2EW01	2EW01	PV&V Engine Test Cell	04-A-746-P4
2EW02	2EW02	PV&V Engine Test Cell	04-A-747-P5
2EW03	2EW03	PV&V Engine Test Cell	04-A-748-P5
2EW04	2EW04	PV&V Engine Test Cell	04-A-749-P5
2EW05	2EW05	PV&V Engine Test Cell	04-A-750-P4
2EW06	2EW06	PV&V Engine Test Cell	04-A-751-P5
2EW07	2EW07	PV&V Engine Test Cell	04-A-752-P5
2EW09	2EW09	PV&V Engine Test Cell	04-A-795-S5
2EW10	2EW10	PV&V Engine Test Cell	04-A-754-P4
2EW11	2EW11	PV&V Engine Test Cell	04-A-755-P4
2EW13	2EW13	PV&V Engine Test Cell	04-A-757-P4
2EW14	2EW14	PV&V Engine Test Cell	04-A-758-P5
2EW15	2EW15	PV&V Engine Test Cell	04-A-759-P5
2EW16	2EW16	PV&V Engine Test Cell	04-A-760-P4
2EW17	2EW17	PV&V Engine Test Cell	07-A-485-S3
2EW17-BB	2EW17	Crankcase Ventilation	18-A-641-S2
2EW18	2EW18	PV&V Engine Test Cell	07-A-486-S3
2EW18-BB	2EW18	Crankcase Ventilation	18-A-642-S2

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	IDNR Construction Permit
2EW19	2EW19	PV&V Engine Test Cell	08-A-522-S3
2EW19-BB	2EW19	Crankcase Ventilation	18-A-643-S2
2B3	2B3	Drivetrain Test Cell	18-A-655-S2
2B3-BB	2B3	Crankcase Ventilation	18-A-656-S2
2B4	2B4	Drivetrain Test Cell	18-A-657-S2
2B4-BB	2B4-BB	Crankcase Ventilation	18-A-658-S2
2BX4	2BX4	Drivetrain Test Cell	04-A-785-S4
2BX4-BB	2BX4	Crankcase Ventilation	18-A-660-S2
2BX6	2BX6	Drivetrain Test Cell	04-A-786-S6
2BX6-BB	2BX6	Crankcase Ventilation	18-A-661-S3
2BX8	2BX8	Drivetrain Test Cell	04-A-785-S4
2BX8-BB	2BX8	Crankcase Ventilation	18-A-662-S3
2C4	2C4	Drivetrain Test Cell w/ Open Crankcase	18-A-689-S2
2C5	2C5	Drivetrain Test Cell w/ Open Crankcase	18-A-690-S2
2C8	2C8	Drivetrain Test Cell w/ Open Crankcase	18-A-691-S2
2CX1	2CX1	Drivetrain Test Cell w/ Open Crankcase	04-A-742-P5
2CX2	2CX2	Drivetrain Test Cell w/ Open Crankcase	04-A-739-P7
2CX3	2CX3	Drivetrain Test Cell w/ Open Crankcase	04-A-744-P6
5NB1	5NB1	Drivetrain Test Cell	12-A-521-S5
5NB1-BB	5NB1	Crankcase Ventilation	18-A-663-S4
5NB3	5NB3	Drivetrain Test Cell	04-A-768-P7
5NB3-BB	5NB3	Crankcase Ventilation	18-A-683-P4
5NB4	5NB4	Drivetrain Test Cell	04-A-769-P6
5NB4-BB	5NB4	Crankcase Ventilation	18-A-684-P4
5NB6	5NB6	Drivetrain Test Cell	04-A-770-P6
5NB6-BB	5NB6	Crankcase Ventilation	18-A-685-P4

B. Oil Mist Eliminators

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
2EWME1	CE 2EWME1	Mist Eliminator	97-A-790-P7
2EWME2	CE 2EWME2	Mist Eliminator	97-A-791-P8

C. Boilers

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
3A	3A	Boiler 15	91-A-171-S3
3B	3B	Boiler 16	91-A-172-S4
3C	3C	Boiler 17	94-A-188-S4

D. Fuel Tanks

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
T1	T1	Diesel Tank 1	99-A-793-S1
T2	T2	Diesel Tank 2	99-A-794-S1
T3	T3	Diesel Tank 3	99-A-795-S1
G1	G1	Gasoline Storage Tank (1,000 gallons)	N/A

E. Generators and Engines

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
Courtyard 2 Generator (1)	Courtyard 2 Generator	Emergency Diesel Generator (617 hp)	N/A
FP	FP	Fire Pump Engine (144 hp)	N/A

F. Paint Booth

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
5N	5N	Paint Booth	80-A-008-S2

(1) Emission Units qualify for Small Unit Exemption under 567 IAC 22.1(2)"w". Records shall be kept in accordance with 567 IAC 22.1(2)"w"(3).

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
2S16	2S16 Heated Parts Washer
3D Printing	3D Printers
CS1	Coolant Storage Tank – Bldg 17
CS2	Coolant Storage Tank – 2EW
CS3	Coolant Storage Tank – Chiller Loop
D2	Diesel Tank (1,000 gal)
D3	Tractor Pad Diesel Tank (1,000 gal)
D4	Fire Pump Diesel Tank (200 gal)
D5	Emergency Generator Diesel Tank (774 gal)
D6	Drawbar Track Diesel Tank (500 gal)
D7	Portable Fuel Trailer (470 gal)
E1	Ethanol Fuel Tank (1,000)
Fugitive 1	Misc. Coating, Cleaners, & Adhesives
Fugitive 2	Aerosol Usage
NG	Natural Gas Units >10 MMBtu/hr
OT1	Oil Tank (698 gal)
PC	Steel Plasma Cutter
T4	Diesel Fuel Tank (20,000 gal)
T5	Diesel Fuel Tank (10,000 gal)
TH1	Torpedo Heater (0.21 MMBtu/hr)
TH2	Torpedo Heater (0.15 MMBtu/hr)
TH3	Torpedo Heater (0.18 MMBtu/hr)

II. Plant-Wide Conditions

Facility Name: John Deere Product Engineering Center
Permit Number: 05-TV-004R3-M001

Permit conditions are established in accord with 567 Iowa Administrative Code rule 24.108

Permit Duration

The term of this permit is: Five (5) years
Commencing on: 10/7/2021
Ending on: 10/6/2026

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 24.110 - 24.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 24.115.

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 - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored 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 roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

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

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

Plant-Wide Operational Limits & Requirements

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

Operating Limits:

1. The combined total amount of diesel fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) shall not exceed 7,150,000 gallons per year [twelve (12) month rolling total].

Authority for Requirement: DNR Construction Permits 04-A-722-P5, 18-A-665-P3, 04-A-739-P6, 04-A-744-P5, 04-A-748-P5, 04-A-749-P5, 04-A-758-P5, 04-A-759-P5, 97-A-790-P5, 97-A-791-P8, 04-A-768-P7, 18-A-683-P4, 04-A-769-P6, 18-A-684-P4, 04-A-770-P6, 18-A-685-P4, 16-A-057-S516-A-057-S5, 18-A-038-S4, 18-A-625-S5, 18-A-626-S5,

18-A-627-S5, 06-A-714-S3, 06-A-715-S5, 18-A-628-S4, 04-A-781-S7, 18-A-639-S5, 04-A-782-S6, 18-A-639-S3, 04-A-786-S4, 04-A-785-S4, 18-A-662-S3, 07-A-487-S6, 18-A-650-S4, 18-A- 653-S3, 18-A-654-S5, 18-A-693-S4, 18-A-694-S4, 18-A-695-S4, 18-A-696-S4, 12-A- 521-S3, 18-A-663-S4

2. The combined total amount of natural gas used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) shall not exceed 264.2 million cubic feet (MMCF) per year [twelve (12) month rolling total].

Authority for Requirement: DNR Construction Permits 20-A-008, 18-A-289-S1, 14-A-483-S3 (These are Engine Works construction permits that contain a limit that includes PEC)

Reporting & Record keeping:

The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. The owner or operator shall record the following:
    a. The combined total amount of natural gas used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) for each month of operation.
    b. The twelve (12) month rolling combined total amount of natural gas used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) for each month of operation.

Authority for Requirement: DNR Construction Permits 20-A-008, 18-A-289-S1, 14-A-483-S3 (These are Engine Works construction permits that contain a limit that includes PEC)

2. The owner or operator shall keep a log detailing the following fuel usage:
    a. The combined amount of fuel used (gallons) in all engine test cells at the facility (Plant Number 07-01-087) for each month of operation, and
    b. The combined rolling twelve (12) month total of fuel used (gal/yr) in all engine test cells at the facility (Plant Number 07-01-087) for each month of operation.

Authority for Requirement: DNR Construction Permits 04-A-722-P5, 18-A-665-P3, 04-A-739-P6, 04-A-744-P5, 04-A-748-P5, 04-A-749-P5, 04-A-758-P5, 04-A-759-P4, 97-A-790-P7, 97-A-791-P8, 04-A-768-P7, 18-A-683-P4, 04-A-769-P6, 18-A-684-P3, 04-A-770-P6, 18-A-685-P4, 16-A-057-S516-A-057-S5, 18-A-038-S4, 18-A-625-S5, 18-A-626-S5, 18-A-627-S5, 06-A-714-S5, 06-A-715-S5, 18-A-628-S4, 04-A- 781-S5, 18-A-639-S5, 04-A-782-S6, 18-A-639-S5, 04-A-786-S4, 04-A-785-S4, 18-A-662-S3, 07-A-487-S6, 18-A-650-S4, 18-A-653-S5, 18-A-

654-S5, 18-A- 693-S2, 18-A-694-S4, 18-A-695-S4, 18-A-696-S4, 12-A-521-S3, 18-A-663-S4

Administrative Consent Order Requirements

1. Within 30 days of the date the order being signed by the Director, Deere & Company shall provide to DNR a list of personnel responsible for communication with DNR regarding each one of the numbered paragraphs below; and

2. Deere & Company shall reply to all DNR construction permit application requests for information within 60 days; and

3. Deere & Company shall provide amended air quality construction permit applications within 30 days of a written request from DNR; and

4. Deere & Company shall provide prompt verbal and written notice to DNR of the discovery of air quality violations not accounted for in this order. For the purposes of this paragraph, prompt verbal notice means notice to the DNR Air Quality Bureau Compliance and Monitoring Supervisor within eight hours of, or at the start of the first working day following the discovery, and prompt written notice shall mean written notice to the DNR Air Quality Bureau Compliance and Monitoring Supervisor within seven days of the discovery; and

5. Within 90 days of the date of this Order, Deere & Company shall adjust its Title V Compliance Certification Reviews process and shall submit to DNR a detailed description of the improvements made to its review process, which shall include a schedule for periodic review of the process; and

6. Within 60 days of the date this Order is signed by the Director, Deere & Company shall adjust Emission Inventory Questionnaires submitted for the past five years, and shall make changes and corrections, as necessary; and

7. Deere & Company shall install, continuously maintain, and fully implement an Environmental Management System (EMS) equivalent to ISO (International Organization for Standardization) 14001 :2004, as amended by ISO 14001:2004/Cor.1:2015 or the newest version agreed upon between DNR and Deere & Company. Changes shall be made to any current EMS so that it meets these requirements. The EMS shall be fully implemented and in operation no later than July 1, 2019. Deere & Company intends to seek third-party certification of the EMS and will notify DNR within 30 days of receiving certification. The purpose of the EMS shall be to establish a formal and continuous system at PEC for planning and implementation of steps to achieve, maintain, and improve environmental compliance; monitoring compliance with federal and state environmental requirements; and promptly correcting any deficiencies or violations. The EMS shall include the proposal of changes and improvements specifically designed to resolve the environmental violations that have occurred at PEC to date. The EMS shall include a procedure to transfer information to incoming personnel; and

8. Deere & Company shall submit to DNR, within 60 days of the date of this Order, a plan and schedule to conduct environmental compliance training for all personnel at PEC, including the type of training, and the length and frequency of training sessions. For purposes of this Order, "all personnel" shall mean environmental staff; all engineers employed at the facility; all operators of equipment that has the potential to create emission to the outside atmosphere from the facility; all professional staff who deal with engines and engine testing; all staff, including clerical staff, involved in any recordkeeping; and supervisors and managers responsible for the operations at PEC. The training shall be conducted annually and shall include, but shall not be limited to: an overview of Deere & Company's environmental permits issued to PEC and John Deere Engine Works, and the requirements contained therein; compliance reporting requirements applicable to PEC; and the requirements for the construction of new and modification of existing emission points and emission units. The training shall address air quality, water quality and land quality environmental compliance as applicable to PEC. The training shall be specifically designed to resolve environmental compliance issues that have arisen or may arise. Each annual training shall incorporate audit findings from the preceding year.

Authority for Requirement: Administrative Consent Order No. 2018-AQ-26

NSPS and NESHAP Requirements

40 CFR Part 60 Subpart A Requirements
This facility is an affected source and these *General Provisions* apply to the facility. The affected units are 3A, 3B, 3C, Courtyard 2, and FP.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR Part 60 Subpart A
567 IAC 23.1(2)

40 CFR Part 60 Subpart Dc Requirements
This facility is subject to Standards of Performance for *Small Industrial Commercial Institutional Steam Generating Units.* The affected units are 3A, 3B, and 3C.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR Part 60 Subpart Db
567 IAC 23.1(2)"lll"

40 CFR Part 60 Subpart IIII Requirements
This facility is subject to Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines.* The affected units are Courtyard 2, and FP.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2)"yyy"

40 CFR Part 63 Subpart A Requirements
This facility is an affected source and these *General Provisions* apply to the facility. The affected units are Courtyard 2, FP, and G1.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR Part 63 Subpart A
567 IAC 23.1(4)

40 CFR Part 63 Subpart ZZZZ Requirements
This facility is subject to the National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines*. The affected units are Courtyard 2, FP, PSD Test Cell emission units 2CX1, 2CX2, 2CX3, 5NB3, 5NB4, 5NB6, and Non-PSD Test Cell emission units 2B3, 2B4, 2BX4,2BX6,2BX8,2C4,2C5,2C8,5NB1.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR Part 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

40 CFR Part 63 Subpart CCCCCC Requirements
This facility is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category: *Gasoline Dispensing Facilities*. The affected unit is G1.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR Part 63 Subpart CCCCCC
567 IAC 23.1(4)"ec"

III. Emission Point-Specific Conditions

Facility Name: John Deere Product Engineering Center
Permit Number: 05-TV-004R3-M001

Emission Point ID Number: See Table: Test Cells & Associated Equipment

Associated Equipment
Associated Emission Unit ID Numbers: See Table: Test Cells & Associated Equipment

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Maximum Rated Capacity[1]	
			Engine	Dynamometer
1A06	1A06	Tilt Table Engine Test Cell	18 L, 10 gal/hr	N/A
1A06-BB	1A06	Tilt Table Engine Test Cell	18 L, 10 gal/hr	N/A
2A01	2A01	P&E Engine Test Cell	15 L, 39 gal/hr	750 hp
2A01-BB	2A01	Crankcase Ventilation	15 L, 39 gal/hr	750 hp
2A02	2A02	P&E Engine Test Cell	15 L, 39 gal/hr	750 hp
2A02-BB	2A02	Crankcase Ventilation	15 L, 39 gal/hr	750 hp
2A03a	2A03	P&E Engine Test Cell	18 L, 55 gal/hr	1,347 hp
2A03b	2A03	P&E Engine Test Cell	18 L, 55 gal/hr	1,347 hp
2A03-BB	2A03	Crankcase Ventilation	18 L, 55 gal/hr	1,347 hp
2A04a	2A04	P&E Engine Test Cell	9 L, 24 gal/hr	460 hp
2A04b	2A04	P&E Engine Test Cell	9 L, 24 gal/hr	460 hp
2A04-BB	2A04	Crankcase Ventilation	9 L, 24 gal/hr	460 hp
2A06	2A06	P&E Engine Test Cell	15 L, 39 gal/hr	675 hp
2A06-BB	2A06	Crankcase Ventilation	15 L, 39 gal/hr	675 hp
2A07a	2A07	P&E Engine Test Cell	4.5 L, 12 gal/hr	190 hp
2A07b	2A07	P&E Engine Test Cell	4.5 L, 12 gal/hr	190 hp
2A07-BB	2A07	Crankcase Ventilation	4.5 L, 12 gal/hr	190 hp
2A08a	2A08	P&E Engine Test Cell	18 L, 55 gal/hr	850 hp
2A08b	2A08	P&E Engine Test Cell	18 L, 55 gal/hr	850 hp
2A08-BB	2A08	Crankcase Ventilation	18 L, 55 gal/hr	850 hp
2A09	2A09	P&E Engine Test Cell	15 L, 39 gal/hr	845 hp
2A09-BB	2A09	Crankcase Ventilation	15 L, 39 gal/hr	845 hp
2A10	2A10	P&E Engine Test Cell	15 L, 39 gal/hr	675 hp
2A10-BB	2A10	Crankcase Ventilation	15 L, 39 gal/hr	675 hp
2AN01 (2A12)	2AN01 (2A12)	P&E Engine Test Cell	9 L, 24 gal/hr	460 hp
2AN01 (2A12)-BB	2AN01 (2A12)	Crankcase Ventilation	9 L, 24 gal/hr	460 hp

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Maximum Rated Capacity[1]	
			Engine	Dynamometer
2AN03 (2A13)	2AN03 (2A13)	P&E Engine Test Cell	6.8 L, 18 gal/hr	330 hp
2AN03 (2A13)-BB	2AN03 (2A12)	Crankcase Ventilation	6.8 L, 18 gal/hr	330 hp
2AN08 (2AX12)	2AN08 (2AX12)	P&E Engine Test Cell	9 L, 24 gal/hr	460 hp
2AN08 (2AX12)-BB	2AN8 (2AX12)	Crankcase Ventilation	9 L, 24 gal/hr	460 hp
2AN10 (2AX11)a	2AN10 (2AX11)	P&E Engine Test Cell	6.8 L, 18 gal/hr	330 hp
2AN10 (2AX11)b	2AN10 (2AX11)	P&E Engine Test Cell	6.8 L, 18 gal/hr	330 hp
2AN10 (2AX11)-BB	2AN10 (2AX11)	Crankcase Ventilation	6.8 L, 18 gal/hr	330 hp
2AN11 (2AX10)	2AN11 (2AX10)	P&E Engine Test Cell	15 L, 55 gal/hr	1000 hp
2AN11 (2AX10)-BB	2AN11 (2AX10)	Crankcase Ventilation	15 L, 55 gal/hr	1000 hp
2AN13 (2AX9)	2AN13 (2AX9)	P&E Engine Test Cell	15 L, 39 gal/hr	675 hp
2AN13 (2AX9)-BB	2AN13 (2AX9)	Crankcase Ventilation	15 L, 39 gal/hr	675 hp
2AX01	AX01	P&E Engine Test Cell	9 L, 24 gal/hr	460 hp
2AX01-BB	AX01	Crankcase Ventilation	9 L, 24 gal/hr	460 hp
2AX02	AX02	P&E Engine Test Cell	15 L, 39 gal/hr	850 hp
2AX02-BB	AX02	Crankcase Ventilation	15 L, 39 gal/hr	850 hp
2AX03	2AX03	P&E Engine Test Cell	15 L, 8.6 gal/hr	175 hp
2AX03-BB	2AX03	Crankcase Ventilation	15 L, 8.6 gal/hr	175 hp
2AX04	2AX04	P&E Engine Test Cell	15 L, 8.6 gal/hr	150 hp
2AX04-BB	2AX04	Crankcase Ventilation	15 L, 8.6 gal/hr	150 hp
2AX05	2AX05	P&E Engine Test Cell	15 L, 39 gal/hr	750 hp
2AX05-BB	2AX05	Crankcase Ventilation	15 L, 39 gal/hr	750 hp
2AX06	2AX06	P&E Engine Test Cell	9 L, 24 gal/hr	460 hp
2AX06-BB	2AX06	Crankcase Ventilation	9 L, 24 gal/hr	460 hp
2AX07	2AX07	P&E Engine Test Cell	18 L, 55 gal/hr	1200 hp
2AX07-BB	2AX07	Crankcase Ventilation	18 L, 55 gal/hr	1200 hp
2AX08	2AX08	P&E Engine Test Cell	18 L, 55 gal/hr	1200 hp
2AX08-BB	2AX08	Crankcase Ventilation	18 L, 55 gal/hr	1200 hp
2N02	2N02	P&E Engine Test Cell	9 L, 24 gal/hr	500 hp
2N02-BB	2N02	Crankcase Ventilation	9 L, 24 gal/hr	500 hp
2N03	2N03	P&E Engine Test Cell	15 L, 39 gal/hr	845 hp
2N03-BB	2N03	Crankcase Ventilation	15 L, 39 gal/hr	845 hp
2N04	2N04	P&E Engine Test Cell	9 L, 24 gal/hr	500 hp
2N04-BB	2N04	Crankcase Ventilation	9 L, 24 gal/hr	500 hp
2N05	2N05	P&E Engine Test Cell	18 L, 55 gal/hr	1345 hp
2N05-BB	2N05	Crankcase Ventilation	18 L, 55 gal/hr	1345 hp
2N06	2N06	P&E Engine Test Cell	15 L, 39 gal/hr	845 hp
2N06-BB	2N06	Crankcase Ventilation	15 L, 39 gal/hr	845 hp
2B01	2B01	P&E Engine Test Cell	15 L, 39 gal/hr	750 hp
2B01-BB	2B01	Crankcase Ventilation	15 L, 39 gal/hr	750 hp

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Maximum Rated Capacity[1]	
			Engine	Dynamometer
2N07	2N07	Sound Room Engine Test Cell	18 L, 55 gal/hr	1200 hp
2N07-BB	2N07	Crankcase Ventilation	18 L, 55 gal/hr	1200 hp
2N08	2N08	Cold Room Engine Test Cell	18 L, 55gal/hr	380 hp
2N10a	2N10	Cold Room Engine Test Cell	18 L, 55 gal/hr	380 hp
2N10b	2N10	Cold Room Engine Test Cell	18 L, 55 gal/hr	380 hp
2N10c	2N10	Cold Room Engine Test Cell	18 L, 55 gal/hr	380 hp
2N10d	2N10	Cold Room Engine Test Cell	18 L, 55 gal/hr	380 hp
2NX15	2NX15	Gen Set Engine Test Cell	15 L, 39 gal/hr	1006 hp
2NX15-BB	2NX15	Gen Set Engine Test Cell	15 L, 39 gal/hr	1006 hp
2E01	2E01	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2E02	2E02	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2E03	2E03	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2E04	2E04	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2EW01	2EW01	PV&V Engine Test Cell	15 L, 39 gal/hr	2000 hp
2EW02	2EW02	PV&V Engine Test Cell	18 L, 55 gal/hr	2000 hp
2EW03	2EW03	PV&V Engine Test Cell	18 L, 55 gal/hr	1200 hp
2EW04	2EW04	PV&V Engine Test Cell	18 L, 55 gal/hr	2000 hp
2EW05	2EW05	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2EW06	2EW06	PV&V Engine Test Cell	15 L, 39 gal/hr	500 hp
2EW07	2EW07	PV&V Engine Test Cell	15 L, 39 gal/hr	500 hp
2EW09	2EW09	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2EW10	2EW10	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2EW11	2EW11	PV&V Engine Test Cell	15 L, 39 gal/hr	1000 hp
2EW13	2EW13	PV&V Engine Test Cell	15 L, 39 gal/hr	1600 hp
2EW14	2EW14	PV&V Engine Test Cell	18 L, 55 gal/hr	1600 hp
2EW15	2EW15	PV&V Engine Test Cell	18 L, 55 gal/hr	1600 hp
2EW16	2EW16	PV&V Engine Test Cell	15 L, 39 gal/hr	1600 hp
2EW17	2EW17	PV&V Engine Test Cell	15 L, 39 gal/hr	500 hp
2EW17-BB	2EW17	Crankcase Ventilation	15 L, 39 gal/hr	500 hp
2EW18	2EW18	PV&V Engine Test Cell	15 L, 39 gal/hr	500 hp
2EW18-BB	2EW18	Crankcase Ventilation	15 L, 39 gal/hr	500 hp
2EW19	2EW19	PV&V Engine Test Cell	15 L, 39 gal/hr	500 hp
2EW19-BB	2EW19	Crankcase Ventilation	15 L, 39 gal/hr	500 hp
2B3	2B3	Drivetrain Test Cell	15 L, 39 gal/hr	1400 hp
2B3-BB	2B3	Crankcase Ventilation	15 L, 39 gal/hr	1400 hp
2B4	2B4	Drivetrain Test Cell	15 L, 39 gal/hr	1400 hp
2B4-BB	2B4-BB	Crankcase Ventilation	15 L, 39 gal/hr	1400 hp
2BX4	2BX4	Drivetrain Test Cell	15 L, 39 gal/hr	1400 hp
2BX4-BB	2BX4	Crankcase Ventilation	15 L, 39 gal/hr	1400 hp

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Maximum Rated Capacity[1]	
			Engine	Dynamometer
2BX6	2BX6	Drivetrain Test Cell	18 L, 55 gal/hr	2400 hp
2BX6-BB	2BX6	Crankcase Ventilation	18 L, 55 gal/hr	2400 hp
2BX8	2BX8	Drivetrain Test Cell	18 L, 55 gal/hr	2400 hp
2BX8-BB	2BX8	Crankcase Ventilation	18 L, 55 gal/hr	2400 hp
2C4	2C4	Drivetrain Test Cell w/ Open Crankcase	15 L, 39 gal/hr	1130 hp
2C5	2C5	Drivetrain Test Cell w/ Open Crankcase	15 L, 39 gal/hr	1400 hp
2C8	2C8	Drivetrain Test Cell w/ Open Crankcase	15 L, 39 gal/hr	2400 hp
2CX1	2CX1	Drivetrain Test Cell w/ Open Crankcase	15 L, 39 gal/hr	1330 hp
2CX2	2CX2	Drivetrain Test Cell w/ Open Crankcase	18 L, 55 gal/hr	2300 hp
2CX3	2CX3	Drivetrain Test Cell w/ Open Crankcase	18 L, 55 gal/hr	1330 hp
5NB1	5NB1	Drivetrain Test Cell	18 L, 55 gal/hr	2300 hp
5NB1-BB	5NB1	Crankcase Ventilation	18 L, 55 gal/hr	2300 hp
5NB3	5NB3	Drivetrain Test Cell	18 L, 55 gal/hr	2300 hp
5NB3-BB	5NB3	Crankcase Ventilation	18 L, 55 gal/hr	2300 hp
5NB4	5NB4	Drivetrain Test Cell	18 L, 55 gal/hr	2300 hp
5NB4-BB	5NB4	Crankcase Ventilation	18 L, 55 gal/hr	2300 hp
5NB6	5NB6	Drivetrain Test Cell	18 L, 55 gal/hr	2300 hp
5NB6-BB	5NB6	Crankcase Ventilation	18 L, 55 gal/hr	2300 hp

[(1)]The maximum rated capacity (MRC) of the engine is the largest engine that can be tested in the test cell, the maximum hourly fuel consumption rate of the largest engine, and the maximum dynamometer horse power of the test cell.

Table: Test Cells Emission Limits

EP	EU	Opacity[1, 2]	PM[3] (gr/dscf)	PM_{10}[3,4] (lb/hr)	SO_2[3] (lb/MMBtu)	NOx[3] lb/hr	CO[3] (lb/hr)	Iowa DNR Construction Permit # (Authority for Requirement)
1A06	1A06	40%	0.1	0.12	2.5	5.91	3.25	16-A-057-S5
1A06-BB	1A06	40%	0.1	0.004	2.5	0.03	0.02	18-A-038-S4
2A01	2A01	40%	0.1	0.499	2.5	24.7	13.6	04-A-721-P4
2A01-BB	2A01	40%	0.1	0.015	2.5	0.123	0.095	18-A-664-P2
2A02	2A02	40%	0.1	0.499	2.5	24.7	13.6	04-A-722-P5
2A02-BB	2A02	40%	0.1	0.015	2.5	0.123	0.095	18-A-665-P3
2A03a	2A03	40%	0.1	0.90	2.5	44.3	24.4	06-A-712-S4
2A03b	2A03	40%	0.1	0.90	2.5	44.3	24.4	05-A-595-S5
2A03-BB	2A03	40%	0.1	0.027	2.5	0.221	0.171	18-A-039-S3
2A04a	2A04	40%	0.1	0.306	2.5	15.1	8.32	06-A-713-S3
2A04b	2A04	40%	0.1	0.306	2.5	15.1	8.32	05-A-596-S4
2A04-BB	2A04	40%	0.1	0.0092	2.5	0.076	0.058	18-A-040-S2
2A06	2A06	40%	0.1	0.45	2.5	22.2	12.2	18-A-623-S2
2A06-BB	2A06	40%	0.1	0.014	2.5	0.111	0.086	18-A-624-S2
2A07a	2A07	40%	0.1	0.127	2.5	6.25	3.44	18-A-625-S5
2A07b	2A07	40%	0.1	0.127	2.5	6.25	3.44	18-A-626-S5
2A07-BB	2A07	40%	0.1	0.0038	2.5	0.031	0.024	18-A-627-S5
2A08a	2A08	40%	0.1	0.566	2.5	28.0	15.4	06-A-714-S5
2A08b	2A08	40%	0.1	0.566	2.5	28.0	15.4	06-A-715-S5
2A08-BB	2A08	40%	0.1	0.017	2.5	0.14	0.11	18-A-628-S4
2A09	2A09	40%	0.1	0.565	2.5	27.8	15.3	18-A-629-S2
2A09-BB	2A09	40%	0.1	0.017	2.5	0.139	0.107	18-A-630-S2
2A10	2A10	40%	0.1	0.450	2.5	22.2	12.2	18-A-631-S2
2A10-BB	2A10	40%	0.1	0.14	2.5	0.111	0.086	18-A-632-S2

EP	EU	Opacity[1, 2]	PM[3] gr/dscf	PM_{10}[3,4] (lb/hr)	SO_2[3] (lb/MMBtu)	NOx[3] lb/hr	CO[3] (lb/hr)	Iowa DNR Construction Permit # (Authority for Requirement)
2AN01 (2A12)	2AN01 (2A12)	40%	0.1	0.306	2.5	15.12	8.32	04-A-725-P5
2AN01 (2A12)-BB	2AN01 (2A12)	40%	0.1	0.009	2.5	0.076	0.058	18-A-676-P2
2AN03 (2A13)	2AN03 (2A13)	40%	0.1	0.22	2.5	10.9	5.97	04-A-728-P5
2AN03 (2A13)-BB	2AN03 (2A12)	40%	0.1	0.07	2.5	0.054	0.042	18-A-677-P2
2AN08 (2AX12)	2AN08 (2AX12)	40%	0.1	0.306	2.5	15.12	8.32	04-A-729-P5
2AN08(2 AX12-BB	2AN8 (2AX12)	40%	0.1	0.009	2.5	0.076	0.058	18-A-678-P2
2AN10 (2AX11)a	2AN10 (2AX11)	40%	0.1	0.22	2.5	10.9	5.97	04-A-731-P5
2AN10 (2AX11)b	2AN10 (2AX11)	40%	0.1	0.22	2.5	10.9	5.97	04-A-732-P4
2AN10(2 AX11)-BB	2AN10 (2AX11)	40%	0.1	0.009	2.5	0.076	0.058	18-A-679-P2
2AN11 (2AX10)	2AN11 (2AX10)	40%	0.1	0.666	2.5	32.9	18.1	04-A-734-P5
2AN11 (2AX10)-BB	2AN11 (2AX10)	40%	0.1	0.02	2.5	0.164	0.127	18-A-680-P3
2AN13 (2AX9)	2AN13 (2AX9)	40%	0.1	0.449	2.5	22.2	12.2	04-A-736-P4
2AN13 (2AX9)-BB	2AN13 (2AX9)	40%	0.1	0.014	2.5	0.111	0.086	18-A-680-P3
2AX01	AX01	40%	0.1	0.306	2.5	15.1	8.32	04-A-775-S4
2AX01-BB	AX01	40%	0.1	0.009	2.5	0.076	0.058	18-A-633-S2
2AX02	AX02	40%	0.1	0.566	2.5	28.0	15.4	04-A-776-S4
2AX02-BB	AX02	40%	0.1	0.017	2.5	0.140	0.108	18-A-634-S2
2AX03	2AX03	40%	0.1	0.117	2.5	5.75	3.16	04-A-777-S4
2AX03-BB	2AX03	40%	0.1	0.0035	2.5	0.029	0.022	18-A-635-S2

EP	EU	Opacity[1, 2]	PM[3] gr/dscf	PM_{10}[3,4] (lb/hr)	SO_2[3] (lb/MMBtu)	NOx[3] lb/hr	CO[3] (lb/hr)	Iowa DNR Construction Permit # (Authority for Requirement)
2AX04	2AX04	40%	0.1	0.10	2.5	4.93	2.71	04-A-778-S4
2AX04-BB	2AX04	40%	0.1	0.003	2.5	0.025	0.019	18-A-636-S2
2AX05	2AX05	40%	0.1	0.50	2.5	24.7	13.6	04-A-779-S4
2AX05-BB	2AX05	40%	0.1	0.015	2.5	0.123	0.095	18-A-637-S2
2AX06	2AX06	40%	0.1	0.306	2.5	15.1	8.32	04-A-780-S4
2AX06-BB	2AX06	40%	0.1	0.009	2.5	0.076	0.095	18-A-638-S2
2AX07	2AX07	40%	0.1	0.80	2.5	39.49	21.72	04-A-781-S7
2AX07-BB	2AX07	40%	0.1	0.02	2.5	0.20	0.15	18-A-639-S5
2AX08	2AX08	40%	0.1	0.80	2.5	39.4	21.7	04-A-782-S6
2AX08-BB	2AX08	40%	0.1	0.024	2.5	0.20	0.15	18-A-640-S4
2N02	2N02	40%	0.1	0.333	2.5	16.4	9.04	18-A-644-S2
2N02-BB	2N02	40%	0.1	0.01	2.5	0.082	0.063	18-A-645-S2
2N03	2N03	40%	0.1	0.563	2.5	27.8	15.3	18-A-646-S2
2N03-BB	2N03	40%	0.1	0.017	2.5	0.139	0.107	18-A-647-S2
2N04	2N04	40%	0.1	0.333	2.5	16.4	9.04	18-A-648-S2
2N04-BB	2N04	40%	0.1	0.01	2.5	0.082	0.063	18-A-649-S2
2N05	2N05	40%	0.1	0.895	2.5	44.2	24.3	07-A-487-S6
2N05-BB	2N05	40%	0.1	0.024	2.5	0.22	0.17	18-A-650-S4
2N06	2N06	40%	0.1	0.563	2.5	27.8	15.3	11-A-403-S3
2N06-BB	2N06	40%	0.1	0.017	2.5	0.139	0.107	18-A-652-S2
2B01	2B01	40%	0.1	0.499	2.5	24.7	13.6	04-A-738-P4
2B01-BB	2B01	40%	0.1	0.015	2.5	0.123	0.095	18-A-682-P2
2N07	2N07	40%	0.1	0.798	2.5	39.4	21.7	18-A-653-S5
2N07-BB	2N07	40%	0.1	0.024	2.5	0.197	0.152	18-A-654-S5
2N08	2N08	40%	0.1	0.253	2.5	12.5	6.87	18-A-692-S4
2N10a	2N10	40%	0.1	0.253	2.5	12.5	6.87	18-A-693-S4
2N10b	2N10	40%	0.1	0.253	2.5	12.5	6.87	18-A-694-S4

EP	EU	Opacity[1, 2]	PM[3] gr/dscf	PM_{10}[3,4] (lb/hr)	SO_2[3] (lb/MMBtu)	NOx[3] lb/hr	CO[3] (lb/hr)	Iowa DNR Construction Permit # (Authority for Requirement)
2N10c	2N10	40%	0.1	0.253	2.5	12.5	6.87	18-A-695-S4
2N10d	2N10	40%	0.1	0.253	2.5	12.5	6.87	18-A-696-S4
2NX15	2NX15	40%	0.1	0.67	2.5	33.1	18.2	04-A-767-P4
2NX15-BB	2NX15	40%	0.1	0.02	2.5	0.165	0.127	18-A-686-P2
2E01	2E01	40%	0.1	0.333	2.5	16.4	1.64	04-A-788-S6
2E02	2E02	40%	0.1	0.333	2.5	16.4	1.64	04-A-789-S4
2E03	2E03	40%	0.1	0.333	2.5	16.4	1.64	04-A-790-S4
2E04	2E04	40%	0.1	0.333	2.5	16.4	1.64	04-A-791-S4
2EW01	2EW01	40%	0.1	0.666	2.5	32.9	3.29	04-A-746-P4
2EW02	2EW02	40%	0.1	0.666	2.5	32.9	3.29	04-A-747-P5
2EW03	2EW03	40%	0.1	0.80	2.5	39.42	3.94	04-A-748-P5
2EW04	2EW04	40%	0.1	0.667	2.5	32.9	3.29	04-A-749-P5
2EW05	2EW05	40%	0.1	0.666	2.5	32.9	3.29	04-A-750-P4
2EW06	2EW06	40%	0.1	0.333	2.5	16.4	1.64	04-A-751-P5
2EW07	2EW07	40%	0.1	0.333	2.5	16.4	1.64	04-A-752-P5
2EW09	2EW09	40%	0.1	0.666	2.5	32.9	3.29	04-A-795-S5
2EW10	2EW10	40%	0.1	0.666	2.5	32.9	3.29	04-A-754-P4
2EW11	2EW11	40%	0.1	0.666	2.5	32.9	3.29	04-A-755-P4
2EW13	2EW13	40%	0.1	1.07	2.5	52.6	5.26	04-A-757-P4
2EW14	2EW14	40%	0.1	1.07	2.5	52.6	5.26	04-A-758-P5
2EW15	2EW15	40%	0.1	1.07	2.5	52.6	5.26	04-A-759-P5
2EW16	2EW16	40%	0.1	1.07	2.5	52.6	5.26	04-A-760-P4
2EW17	2EW17	40%	0.1	0.333	2.5	16.4	1.64	07-A-485-S3
2EW17-BB	2EW17	40%	0.1	0.01	2.5	0.082	0.012	18-A-641-S2
2EW18	2EW18	40%	0.1	0.333	2.5	16.4	1.64	07-A-486-S3
2EW18-BB	2EW18	40%	0.1	0.01	2.5	0.082	0.012	18-A-642-S2

EP	EU	Opacity[1, 2]	PM[3] gr/dscf	PM_{10}[3,4] (lb/hr)	SO_2[3] (lb/MMBtu)	NOx[3] lb/hr	CO[3] (lb/hr)	Iowa DNR Construction Permit # (Authority for Requirement)
2EW19	2EW19	40%	0.1	0.333	2.5	16.4	1.64	08-A-522-S3
2EW19-BB	2EW19	40%	0.1	0.01	2.5	0.082	0.012	18-A-643-S2
2B3	2B3	40%	0.1	0.932	2.5	18.4	4.60	18-A-655-S2
2B3-BB	2B3	40%	0.1	0.028	2.5	0.092	0.032	18-A-656-S2
2B4	2B4	40%	0.1	0.932	2.5	18.4	4.60	18-A-657-S2
2B4-BB	2B4-BB	40%	0.1	0.028	2.5	0.092	0.032	18-A-658-S2
2BX4	2BX4	40%	0.1	0.932	2.5	18.4	4.6	04-A-785-S4
2BX4-BB	2BX4	40%	0.1	0.028	2.5	0.092	0.032	18-A-660-S2
2BX6	2BX6	40%	0.1	0.599	2.5	11.8	7.88	04-A-786-S6
2BX6-BB	2BX6	40%	0.1	0.018	2.5	0.059	0.055	18-A-661-S3
2BX8	2BX8	40%	0.1	0.533	2.5	10.5	7.88	04-A-785-S4
2BX8-BB	2BX8	40%	0.1	0.016	2.5	0.053	0.055	18-A-662-S3
2C4	2C4	40%	0.1	0.752	2.5	14.9	3.72	18-A-689-S2
2C5	2C5	40%	0.1	0.932	2.5	18.4	4.60	18-A-690-S2
2C8	2C8	40%	0.1	1.60	2.5	31.6	7.89	18-A-691-S2
2CX1	2CX1	40%	0.1	0.886	2.5	17.5	4.37	04-A-742-P5
2CX2	2CX2	40%	0.1	1.07	2.5	21.0	5.26	04-A-739-P7
2CX3	2CX3	40%	0.1	0.886	2.5	17.5	4.37	04-A-788-S6
5NB1	5NB1	40%	0.1	1.07	2.5	21.0	5.26	12-A-521-S5
5NB1-BB	5NB1	40%	0.1	0.032	2.5	0.105	0.037	18-A-663-S4
5NB3	5NB3	40%	0.1	1.07	2.5	21.0	5.26	04-A-768-P7
5NB3-BB	5NB3	40%	0.1	0.032	2.5	0.105	0.037	18-A-683-P4
5NB4	5NB4	40%	0.1	1.07	2.5	21.0	5.26	04-A-769-P6
5NB4-BB	5NB4	40%	0.1	0.032	2.5	0.105	0.037	18-A-684-P4
5NB6	5NB6	40%	0.1	1.07	2.5	21.0	5.26	04-A-770-P6
5NB6-BB	5NB6	40%	0.1	0.032	2.5	0.105	0.037	18-A-685-P4

[1] The emission limit is based on a six (6) minute average.

[2] 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).
(3)The emission limit is expressed as the average of three (3) stack test runs.

Additional Authority for Requirements

Pollutant: Opacity
Emission Limits: 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"b"

BACT Limit

Pollutant: Nitrogen Oxides ($NO_{x)}$
Emission Limits: 21.2 ton/month(1), 151 ton/yr(1)
Authority for Requirement: DNR Construction Permits Referenced in Table: Test Cells Emission Limits that are denoted with a "-P".

(1) This emission limit is the total allowed for all PSD Test Cells and their associated crankcase ventilation stacks at the facility (Plant Number 07-01-087) which are those permits denoted with a "–P" (Example: 04-A-XXX-P).
(2) The emission limit is expressed as a monthly cap that is not required to include periods of startup, shutdown, or malfunction (SSM).
(3) The emission limit is based on a twelve (12) month rolling total that includes all periods of operation.

Test Cell Bubble Limits

Pollutant: Nitrogen Oxides (NO_x)
Emission Limits: 322.0(4) lb/hr(1), 222.8(3) ton/yr(2)
Authority for Requirement: Table: Test Cells Emission Limits

(1)The emission limit is expressed as the average of three (3) stack test runs.
(2)The emission limit is based on a twelve (12) month rolling total.
(3)Emission limit is total combined emissions for all engine test cells at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091). The limit was established to make the combination of Product Engineering Center and Engine Works a synthetic minor source for the Prevention of Significant Deterioration (PSD) program.
(4)This emission limit was established to ensure the 18L project (IDNR PNs 18-375, 18-488, 19-221, 19-408, and 20-280) did not result in a significant emission rate of 9.13 lb/hr. It was established to avoid dispersion modeling review of NOx. This emission limit covers EUs

1A06, 2A08, 2AX07, 2AX08, 2EW03, 2EW04, 2EW14, 2EW15, 2N05, 2N07, 2N08, and 2N10.

Operating Limits 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 engines tested in these emission units are limited to firing on diesel fuel or biodiesel (up to B100).
B. The engines tested in these emission units are limited to engines manufactured or built after January 1, 2001. The owner or operator shall maintain a record/log of the manufacture/build date for all engines tested at the site.
C. The sulfur content of any fuel combusted in the engines used in these emission units shall not exceed 15 parts per million (ppm) by weight (wt) except for limited use of a "sulfur dopant" where the fuel combusted shall not exceed 12,000 ppm. The owner or operator shall keep a log detailing the date, the type of fuel used, and the sulfur content of the fuel combusted.
D. The owner or operator shall not use more than 165 gallons of sulfur dopant per rolling twelve (12) month period at the facility (Plant Number 07-01-087). The sulfur content of the sulfur dopant used shall not exceed 0.75 pounds of sulfur per pound of additive (lb of S/lb of additive). The owner or operator shall keep the following records regarding the sulfur dopant:
   (1) A copy of the Safety Data Sheet (SDS) of any sulfur dopant used,
   (2) The date and amount of sulfur dopant is used,
   (3) Identification of the engine test cell where the sulfur dopant was used,
   (4) A monthly total of the amount of sulfur dopant used at the facility (Plant Number 07-01-087), and
   (5) A rolling twelve (12) month total of sulfur dopant used at the facility (Plant Number 07-01-087) for each month of operation.
E. The engines tested shall meet a particulate (filterable and condensable combined) emission factor of 0.013 lb/gal. The owner or operator shall follow the compliance methodology detailed in Footnote 2 of Condition 2 (Compliance Demonstration) of this permit for determining compliance.
F. The combined total amount of fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) shall not exceed 7,150,000 gallons per year [twelve (12) month rolling total]. The owner or operator shall record the following:
   a. The combined total amount of fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) for each month of operation.
   b. The twelve (12) month rolling combined total amount of fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) for each month of operation.
G. The engines tested shall meet a CO emission factor of 0.0645 lb/gal for PSD synthetic minor tracking requirements. The owner or operator shall follow the compliance

methodology detailed in Footnote 7 of Condition 2 (Compliance Demonstration) of this permit for determining compliance.

H. The owner or operator shall record the following information to demonstrate compliance with the annual NOx limit (222.8 tons/yr):
   a. The combined total monthly amount of NOx recorded from the test cells with sensors at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).
   b. The combined total monthly NOx emissions from test cells without sensors at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).
   c. The combined total rolling twelve (12) month total NOx emissions from John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).

Additional Operating Limit for EU 2CX1, EU 2CX2, EU 2CX3, EU 5NB3, EU 5NB4, EU 5NB6, EU 2B3, EU 2B4, EU 2BX4, EU 2BX6, EU 2BX8, EU 2C4, EU 2C5, EU 2C8, and EU 5NB1:

1. The owner or operator shall comply with all applicable requirements of NESHAP Subpart ZZZZ

Additional Operating Limit for EP (2AX11)a and EP (2AX11)b:

1. The emissions from EU 2AN10 shall not vent through EP 2AN10 (2AX11)a and 2AN10 (2AX11)b simultaneously.

Additional Operating Limit for EU 2CX2, EU 5NB1, EU 5NB3, EU 5NB4, and EU 5NB6:

1. The maximum power output of the following emission units: EU 2CX2, EU 5NB1, EU 5NB3, EU 5NB4, and 5NB6 shall not exceed 1,600 hp each.

Additional Operating Limit for EU 2EW01, EU 2EW02, EU 2EW04:

1. The throughput of the following emission units: EU 2EW01, EU 2EW02, EU 2EW04 shall not exceed 1,000 hp each.

Additional Operating Limit for EU 2E01, EU 2E02, EU 2E03, EU 2E04:

1. The throughput of these emission units shall not exceed 500 hp (each).

Additional Operating Limits for emission units EU 2A03, EU 2A04, EU 2A07, EU 2A08:

1. The emissions from EU 2A03 shall not vent through EP 2A03a and EP 2A03b simultaneously.
2. The emissions from EU 2A04 shall not vent through EP 2A04a and EP 2A04b simultaneously.
3. The emissions from EU 2A07 shall not vent through EP 2A07a and EP 2A07b simultaneously.
4. The emissions from EU 2A08 shall not vent through EP 2A08a and EP 2A08b simultaneously.

Additional Operating Limits for emission unit EU 2N08 & EU 2N10:

1. The emission units (EU 2N08 & EU 2N10) shall not exceed ten (10) gallons of fuel consumed per hour.
2. Only one stack from EPs 2N10a, 2N10b, 2N10c, and 2N10d shall be used at any one time to vent emissions from EU 2N10.

Additional Reporting & Recordkeeping Requirement for EU 2A03(1)

A. The owner or operator shall rescind the construction permits for EP's 2A05, 2A05-BB, and 2EW08, (Construction Permits 18-A-041-S2, 18-A-042-S2, and 04-A-753-P4) within 90 days of the date of the start of operation of P&E Engine Test Cell 2A03. During this 90-day period, P&E Engine Test Cell 2A05 and PV&V Engine Test Cell 2EW08 shall not operate simultaneously with P&E Engine Test Cell 2A03.

(1) Permits 18-A-041-S2, 18-A-042-S2, and 04-A-753-P4 were rescinded August 7, 2024

Additional Reporting & Recordkeeping Requirement for EUs 1A06, 2A08, 2AX07, 2AX08, 2EW03, 2EW04, 2EW14, 2EW15, 2N05, 2N07, 2N08 and 2N10:

1. The owner or operator shall demonstrate compliance with the hourly test cell NOx bubble limit (322.0 pounds/hour):
   a. Recording the combined (summation) hourly NOx emissions, as determined by the NOx sensors, for all the test cells (18L Test Cells) equipped with NOx sensors in the hourly bubble limit (1A06, 2A08, 2AX07, 2AX08, 2EW03, 2EW04, 2EW14, 2EW15, 2N05, and 2N07).
   b. For the test cells not equipped with NOx sensors (2N08 an 2N10), the hourly emissions shall be calculated using the monitored gallons of fuel consumed and the fuel-based NOx emission factor (lb/gal).
   c. For each hour of operation, the facility shall electronically calculate and record the combined hourly NOx emissions.

Additional Reporting & Recordkeeping Requirement for EU 2CX2, EU 5NB1, EU 5NB3, EU 5NB4, and EU 5NB6:

1. The owner or operator shall continuously monitor the brake horsepower when the emission units are in operation.
2. The owner or operator shall calculate and record the brake horsepower on an hourly average basis (1-hour average).

Additional Reporting & Recordkeeping Requirement for EU 2N08 and EU 2N10:

1. The owner or operator shall record the following for each hour of operation for EU 2N08 and EU 2N10:
   a. The total gallons of diesel fuel consumed per hour.

Additional Reporting & Recordkeeping Requirement for EU 2EW01, EU 2EW02, EU 2EW04, , , EU 2E01, EU 2E02, EU 2E03, EU 2E04:

1. The owner or operator shall measure and record the brake horsepower when these emission units are in operation.

Additional Reporting & Recordkeeping Requirement for EU 2CX1, EU 2CX2, EU 2CX3, EU 5NB3, EU 5NB4, EU 5NB6 EU 2B3, EU 2B4, EU 2BX4, EU 2BX6, EU 2BX8, EU 2C4, EU 2C5, EU 2C8, and EU 5NB1:

1. For each engine used in emission units EU 2CX1, EU 2CX2, EU 2CX3, EU 5NB3, EU 5NB4, EU 5NB6, EU 2B3, EU 2B4, EU 2BX4, EU 2BX6, EU 2BX8, EU 2C4, EU 2C5, EU 2C8, and EU 5NB1, the owner or operator shall keep a log detailing the following:
    a. The engine identification.
    b. The date the engines was manufactured or built.
    c. The NSPS Subpart IIII applicability.
        i. If the engine is subject to NSPS Subpart IIII, the owner or operator shall maintain a copy of the Certificate of Conformity.
        ii. If the engine is exempt from NSPS Subpart IIII in accordance with 40 CFR §60.4200(d), then:
            1. For engines manufactured by John Deere or one of its subsidiaries, the owner or operator shall:
                a. Maintain a basis for the exemption from NSPS Subpart IIII
                b. Maintain a copy of EPA's memorandum of exemption granting the exemption, if applicable
                c. Maintain a list of requirements for the engine to be exempt from NSPS IIII
                d. Comply with the requirements for the engine to be exempt from NSPS Subpart IIII
            2. For engines not manufactured by John Deere or one of its subsidiaries and John Deere requested an exempt label, John Deere shall:
                a. Maintain a basis for the exemption from NSPS Subpart IIII
                b. Maintain a copy of EPA's memorandum of exemption granting the exemption, if applicable
                c. Maintain a list of requirements for the engine to be exempt from NSPS IIII
                d. Comply with the requirements for the engine to be exempt from NSPS Subpart IIII
            3. For engines not manufactured by John Deere or one of its subsidiaries and John Deere did not request the exempt label, John Deere shall ensure an exemption label meeting the applicable requirements of 40 CFR §89.906, 40 CFR §1068.210, and 40 CFR §1068.215 is affixed to the engine.
        iii. A list of all applicable NESHAP Subpart ZZZZ requirements (i.e. emission limits, compliance testing, initial compliance requirements, continuous compliance requirements, monitoring, recordkeeping, notifications, and reports).

Authority for Requirements: DNR Construction Permits DNR Construction Permits Referenced in Table Test Cells Emission Limits

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Table: Test Cells Emission Point Characteristics			Stack Characteristics				
EP	**EU**	**Construction Permit #**	**Stack Height (feet, above ground)**	**Discharge Style**	**Stack Opening (inches, dia.)**	**Exhaust Temp. (°F)**	**Exhaust Flowrate (scfm)**
1A06	1A06	16-A-057-S5	40	Unobstructed Vertical	14	730	750
1A06-BB	1A06	18-A-038-S4	39.5	Unobstructed Vertical	6	100	5
2A01	2A01	04-A-721-P4	33	Unobstructed Vertical	14	880	1,500
2A01-BB	2A01	18-A-664-P2	35	Unobstructed Vertical	6	100	5
2A02	2A02	04-A-722-P5	33	Unobstructed Vertical	14	880	1,500
2A02-BB	2A02	18-A-665-P3	35	Unobstructed Vertical	6	100	5
2A03a	2A03	06-A-712-S4	41	Unobstructed Vertical	22	375	8,000
2A03b	2A03	05-A-595-S5	41	Unobstructed Vertical	14	570	1,700
2A03-BB	2A03	18-A-039-S3	41	Unobstructed Vertical	6	100	5
2A04a	2A04	06-A-713-S3	41	Unobstructed Vertical	20	375	4,000
2A04b	2A04	05-A-596-S4	41	Unobstructed Vertical	14	570	850
2A04-BB	2A04	18-A-040-S2	41	Unobstructed Vertical	6	100	5
2A06	2A06	18-A-623-S2	38	Unobstructed Vertical	14	835	1,400
2A06-BB	2A06	18-A-624-S2	38	Unobstructed Vertical	6	100	5
2A07a	2A07	18-A-625-S5	41.7	Unobstructed Vertical	10	375	1,200
2A07b	2A07	18-A-626-S5	41.7	Unobstructed Vertical	14	570	850
2A07-BB	2A07	18-A-627-S5	41.7	Unobstructed Vertical	6	100	5
2A08a	2A08	06-A-714-S5	41	Unobstructed Vertical	22	375	8,000
2A08b	2A08	06-A-715-S5	41	Unobstructed Vertical	14	570	830
2A08-BB	2A08	18-A-628-S4	41	Unobstructed Vertical	6	100	5
2A09	2A09	18-A-629-S2	33	Unobstructed Vertical	14	935	1,800
2A09-BB	2A09	18-A-630-S2	33	Unobstructed Vertical	6	100	5
2A10	2A10	18-A-631-S2	33	Unobstructed Vertical	14	835	1,400
2A10-BB	2A10	18-A-632-S2	33	Unobstructed Vertical	6	100	5
2AN01 (2A12)	2AN01 (2A12)	04-A-725-P5	33	Unobstructed Vertical	14	710	800
2AN01 (2A12)-BB	2AN01 (2A12)	18-A-676-P2	33	Unobstructed Vertical	6	100	5
2AN03 (2A13)	2AN03 (2A13)	04-A-728-P5	33	Unobstructed Vertical	14	630	500

Table: Test Cells Emission Point Characteristics

			Stack Characteristics				
EP	**EU**	**Construction Permit #**	**Stack Height (feet, above ground)**	**Discharge Style**	**Stack Opening (inches, dia.)**	**Exhaust Temp. (ºF)**	**Exhaust Flowrate (scfm)**
2AN03 (2A13)-BB	2AN03 (2A12)	18-A-677-P2	33	Unobstructed Vertical	6	100	5
2AN08 (2AX12)	2AN08 (2AX12)	04-A-729-P5	33	Unobstructed Vertical	14	710	800
2AN08(2AX12-BB	2AN8 (2AX12)	18-A-678-P2	36	Unobstructed Vertical	6	100	5
2AN10 (2AX11) a	2AN10 (2AX11)	04-A-731-P5	33	Unobstructed Vertical	12	375	3,000
2AN10 (2AX11) b	2AN10 (2AX11)	04-A-732-P4	33	Unobstructed Vertical	8	570	850
2AN10(2AX11)-BB	2AN10 (2AX11)	18-A-679-P2	33	Unobstructed Vertical	6	100	5
2AN11 (2AX10)	2AN11 (2AX10)	04-A-734-P5	33	Unobstructed Vertical	14	1,030	1,700
2AN11 (2AX10)-BB	2AN11 (2AX10)	18-A-680-P3	30	Unobstructed Vertical	6	100	5
2AN13 (2AX9)	2AN13 (2AX9)	04-A-736-P4	33	Unobstructed Vertical	14	1,030	1,700
2AN13 (2AX9)-BB	2AN13 (2AX9)	18-A-680-P3	32	Unobstructed Vertical	6	100	5
2AX01	AX01	04-A-775-S4	33	Unobstructed Vertical	12	710	800
2AX01-BB	AX01	18-A-633-S2	34	Unobstructed Vertical	6	100	5
2AX02	AX02	04-A-776-S4	33	Unobstructed Vertical	14	940	1,650
2AX02-BB	AX02	18-A-634-S2	33.5	Unobstructed Vertical	6	100	5
2AX03	2AX03	04-A-777-S4	33	Unobstructed Vertical	14	545	300
2AX03-BB	2AX03	18-A-635-S2	33	Unobstructed Vertical	6	100	5
2AX04	2AX04	04-A-778-S4	32	Unobstructed Vertical	8	520	300

Table: Test Cells Emission Point Characteristics

				Stack Characteristics			
EP	**EU**	**Construction Permit #**	**Stack Height (feet, above ground)**	**Discharge Style**	**Stack Opening (inches, dia.)**	**Exhaust Temp. (ºF)**	**Exhaust Flowrate (scfm)**
2AX04-BB	2AX04	18-A-636-S2	34	Unobstructed Vertical	6	100	5
2AX05	2AX05	04-A-779-S4	33	Unobstructed Vertical	14	880	1,500
2AX05-BB	2AX05	18-A-637-S2	36	Unobstructed Vertical	6	100	5
2AX06	2AX06	04-A-780-S4	33	Unobstructed Vertical	14	705	800
2AX06-BB	2AX06	18-A-638-S2	35	Unobstructed Vertical	6	100	5
2AX07	2AX07	04-A-781-S7	33	Unobstructed Vertical	14	1,030	1,700
2AX07-BB	2AX07	18-A-639-S5	33	Unobstructed Vertical	6	100	5
2AX08	2AX08	04-A-782-S6	33	Unobstructed Vertical	14	1,150	1,700
2AX08-BB	2AX08	18-A-640-S4	34	Unobstructed Vertical	6	100	5
2N02	2N02	18-A-644-S2	33	Unobstructed Vertical	14	730	1,150
2N02-BB	2N02	18-A-645-S2	32	Unobstructed Vertical	6	100	5
2N03	2N03	18-A-646-S2	32	Unobstructed Vertical	14	935	1,650
2N03-BB	2N03	18-A-647-S2	32	Unobstructed Vertical	6	100	5
2N04	2N04	18-A-648-S2	33	Unobstructed Vertical	14	730	1,150
2N04-BB	2N04	18-A-649-S2	31	Unobstructed Vertical	6	100	5
2N05	2N05	07-A-487-S6	33	Unobstructed Vertical	14	1,230	1,700
2N05-BB	2N05	18-A-650-S4	31	Unobstructed Vertical	6	100	5
2N06	2N06	11-A-403-S3	33	Unobstructed Vertical	14	935	1,650
2N06-BB	2N06	18-A-652-S2	33	Unobstructed Vertical	6	100	5
2B01	2B01	04-A-738-P4	33	Unobstructed Vertical	14	880	1,500
2B01-BB	2B01	18-A-682-P2	35	Unobstructed Vertical	6	100	5
2N07	2N07	18-A-653-S5	33	Unobstructed Vertical	12	1,150	1,700
2N07-BB	2N07	18-A-654-S5	33	Unobstructed Vertical	6	100	5
2N08	2N08	18-A-692-S4	33	Unobstructed Vertical	26	150	8,700
2N10a	2N10	18-A-693-S4	33	Unobstructed Vertical	12	150	8,700
2N10b	2N10	18-A-694-S4	33	Unobstructed Vertical	26	150	8,700
2N10c	2N10	18-A-695-S4	33	Unobstructed Vertical	26	150	8,700
2N10d	2N10	18-A-696-S4	33	Unobstructed Vertical	26	150	8,700
2NX15	2NX15	04-A-767-P4	33	Unobstructed Vertical	14	1,230	1,700
2NX15-BB	2NX15	18-A-686-P2	30	Unobstructed Vertical	6	100	5
2E01	2E01	04-A-788-S6	33	Unobstructed Vertical	12	730	1,150
2E02	2E02	04-A-789-S4	33	Unobstructed Vertical	12	730	1,150
2E03	2E03	04-A-790-S4	33	Unobstructed Vertical	12	730	1,150

Table: Test Cells Emission Point Characteristics

				Stack Characteristics			
EP	**EU**	**Construction Permit #**	**Stack Height (feet, above ground)**	**Discharge Style**	**Stack Opening (inches, dia.)**	**Exhaust Temp. (ºF)**	**Exhaust Flowrate (scfm)**
2E04	2E04	04-A-791-S4	33	Unobstructed Vertical	12	730	1,150
2EW01	2EW01	04-A-746-P4	38	Unobstructed Vertical	12	1,030	1,750
2EW02	2EW02	04-A-747-P5	38	Unobstructed Vertical	12	1,030	1,750
2EW03	2EW03	04-A-748-P5	38	Unobstructed Vertical	12	1,150	1,700
2EW04	2EW04	04-A-749-P5	38	Unobstructed Vertical	12	1,030	1,750
2EW05	2EW05	04-A-750-P4	38	Unobstructed Vertical	12	1,050	1,700
2EW06	2EW06	04-A-751-P5	38	Unobstructed Vertical	12	730	1,150
2EW07	2EW07	04-A-752-P5	38	Unobstructed Vertical	12	730	1,150
2EW09	2EW09	04-A-795-S5	33	Unobstructed Vertical	12	1000	1,750
2EW10	2EW10	04-A-754-P4	33	Unobstructed Vertical	12	1,050	1,700
2EW11	2EW11	04-A-755-P4	33	Unobstructed Vertical	12	1,050	1,700
2EW13	2EW13	04-A-757-P4	33	Unobstructed Vertical	12	1,250	1,700
2EW14	2EW14	04-A-758-P5	33	Unobstructed Vertical	12	1,030	1,750
2EW15	2EW15	04-A-759-P5	33	Unobstructed Vertical	12	1,250	1,700
2EW16	2EW16	04-A-760-P4	33	Unobstructed Vertical	12	1,250	1,700
2EW17	2EW17	07-A-485-S3	33	Unobstructed Vertical	12	730	1,150
2EW17-BB	2EW17	18-A-641-S2	33	Unobstructed Vertical	6	100	5
2EW18	2EW18	07-A-486-S3	33	Unobstructed Vertical	12	730	1,150
2EW18-BB	2EW18	18-A-642-S2	33	Unobstructed Vertical	6	100	5
2EW19	2EW19	08-A-522-S3	33	Unobstructed Vertical	12	730	1,150
2EW19-BB	2EW19	18-A-643-S2	33	Unobstructed Vertical	6	100	5
2B3	2B3	18-A-655-S2	33	Unobstructed Vertical	8	1,230	1,700
2B3-BB	2B3	18-A-656-S2	35	Unobstructed Vertical	6	100	5
2B4	2B4	18-A-657-S2	33	Unobstructed Vertical	8	1,230	1,700
2B4-BB	2B4-BB	18-A-658-S2	35	Unobstructed Vertical	6	100	5
2BX4	2BX4	04-A-785-S4	33	Unobstructed Vertical	16	910	1,600
2BX4-BB	2BX4	18-A-660-S2	31	Unobstructed Vertical	6	100	5
2BX6	2BX6	04-A-786-S6	33	Unobstructed Vertical	14	970	1,700
2BX6-BB	2BX6	18-A-661-S3	31	Unobstructed Vertical	6	100	5
2BX8	2BX8	04-A-785-S4	33	Unobstructed Vertical	14	970	1,700
2BX8-BB	2BX8	18-A-662-S3	31	Unobstructed Vertical	6	100	5
2C4	2C4	18-A-689-S2	33	Unobstructed Vertical	8	1,100	1,700
2C5	2C5	18-A-690-S2	33	Unobstructed Vertical	8	1,250	1,700
2C8	2C8	18-A-691-S2	33	Unobstructed Vertical	10	1,250	1,700
2CX1	2CX1	04-A-742-P5	40	Unobstructed Vertical	14	1,250	1,700

Table: Test Cells Emission Point Characteristics

			Stack Characteristics				
EP	**EU**	**Construction Permit #**	**Stack Height (feet, above ground)**	**Discharge Style**	**Stack Opening (inches, dia.)**	**Exhaust Temp. (ºF)**	**Exhaust Flowrate (scfm)**
2CX2	2CX2	04-A-739-P7	40	Unobstructed Vertical	12	1,250	1,700
2CX3	2CX3	04-A-788-S6	40	Unobstructed Vertical	14	1250	1,700
5NB1	5NB1	12-A-521-S5	41	Unobstructed Vertical	14	1,230	1,700
5NB1-BB	5NB1	18-A-663-S4	37	Unobstructed Vertical	6	100	5
5NB3	5NB3	04-A-768-P7	41	Unobstructed Vertical	14	1,230	1,700
5NB3-BB	5NB3	18-A-683-P4	41	Unobstructed Vertical	6	100	5
5NB4	5NB4	04-A-769-P6	41	Unobstructed Vertical	14	1,230	1,700
5NB4-BB	5NB4	18-A-684-P4	41	Unobstructed Vertical	6	100	5
5NB6	5NB6	04-A-770-P6	41	Unobstructed Vertical	14	1,230	1,700
5NB6-BB	5NB6	18-A-685-P4	41	Unobstructed Vertical	6	100	5

Authority for Requirement: DNR Construction Permits Referenced in Table Test Cells Emission Point Characteristics

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

Table: Test Cells Compliance Demonstration

Pollutant	Compliance Methodology[1]	Frequency	Test Run Time	Test Method
PM - State	Stack Testing	Every 3 years[(2)]	1 Hour	40 CFR 51 Appendix M, Method 202
PM10	Stack Testing	Every 3 years[(2)]	1 Hour	40 CFR 51 Appendix M, Method 201A with 202
NO_x	Sensors[(3)]	Continuous	1 Hour	40 CFR 60 Appendix A, Method 7E
	Recordkeeping [(4)]	Rolling 12 Month[(6)]		
CO	Stack Testing	Every 3 Years[(7)]	1 Hour	40 CFR 60 Appendix A, Method 10

Compliance Demonstration Notes:

[(1)] Unless otherwise noted, representative stack testing can be conducted on any test cell at the facility (plant number 07-01-087).

[(2)] The owner or operator shall conduct the following representative compliance tests to determine compliance with the PM/PM10 lb/gal PSD synthetic minor emission factor operating limit of 0.013 lb/gal:

(a) Three (3) tests of a small sized engine with one (1) test at a low load, one (1) test at a medium load, and one test at maximum load.

(b) Three (3) tests of a medium sized engine with one (1) test at a low load, one (1) test at a medium load, and one test at maximum load.

(c) Three (3) tests of a large sized engine with one (1) test at a low load, one (1) test at a medium load, and one test at maximum load.

The tests shall be done under the following conditions:

- The size of the engines (i.e. small, medium, and large) and the loads (i.e. low, medium, and maximum) shall be provided by the owner or operator in the testing protocol to be approved by the Department prior to any testing.
- The owner shall test the engine without the use of after treatment or emission control strategies to the maximum extent possible, and as approved in the testing protocol approved by the Department prior each test.
- Three (3) runs for each test with a minimum of 1-hour runs.
- All of the runs would be averaged together to be compared against the particulate emission factor in Condition 5.F. to determine compliance with the synthetic minor limit.
- Each test would be required every three (3) years.

[(3)] See Continuous Emissions Monitoring for NOx sensor requirements (below).

[(4)] See Reporting and Recordkeeping Requirement 5. of the respective construction permits for the NOx recordkeeping requirements.

[(6)] The frequency of the recordkeeping is a rolling twelve (12) month total.

[(7)] The owner or operator shall conduct the following representative compliance tests at John Deere Product Engineering Center (Plant Number 07-01-087) and/or John Deere Engine Works (Plant Number

07-01-091) to determine compliance with the CO lb/gal PSD Synthetic Minor emission factor operating limit of 0.0645 lbs/gal:

(a) Three (3) tests of a small sized engine with one (1) test at a low load, one (1) test at a medium load, and one test at maximum load.

(b) Three (3) tests of a medium sized engine with one (1) test at a low load, one (1) test at a medium load, and one test at maximum load.

(c) Three (3) tests of a large sized engine with one (1) test at a low load, one (1) test at a medium load, and one test at maximum load.

The tests shall be done under the following conditions:

- The size of the engines (i.e. small, medium, and large) and the loads (i.e. low, medium, and maximum) shall be provided by the owner or operator in the testing protocol to be approved by the Department prior to any testing.
- The owner shall test the engine without the use of after treatment or emission control strategies to the maximum extent possible, and as approved in the testing protocol approved by the Department prior each test.
- Three (3) runs for each test with a minimum of 1-hour runs.
- All of the runs would be averaged together to be compared against the CO emission factor of 0.0645 lbs/gal to determine compliance with the synthetic minor limit.
- Each test would be required every three (3) years.

The next periodic lb/gal emission factor PM test (described by footnote 3) shall be conducted by April 28, 2025 and the next periodic lb/gal emission factor CO test (described by footnote 7) shall be conducted by April 28, 2025. The owner or operator shall continue its periodic testing schedule of once every three (3) years from the date of the previous compliance test(s).

Continuous Emissions Monitoring

1. The following continuous emissions monitoring systems requirements apply to all test cell emission points listed in Table 1: Test Cells & Associated Equipment, except for EP 2N08, EP 2N10a, EP 2N10b, EP 2N10c, and EP 2N10d (Cold Rooms):
   a. NOx:

      The owner or operator shall install, maintain, and operate a NOx monitoring system and record the output of the system, for measuring NOx emissions.

      The system installed shall either be calibrated by the manufacturer or by the owner or operator. Verification of the calibration of each sensor shall be performed through the required pre-certification process in Continuous Emissions Monitoring Condition 2.

      The NOx sensors shall be replaced on a schedule based upon the manufacturer's recommendations or upon failure of the sensor. No individual sensor shall exceed 90% of the manufacturer's estimated lifetime.

   b. Flowmeter:
      The owner or operator shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of the manufacturer's specifications. The owner or operator shall maintain a copy of the manufacturer's specifications onsite. In addition, the owner or operator shall calibrate each flow

monitoring system annually. The accuracy shall be at a minimum +/- 3% of full scale.

2. The owner or operator shall only use pre-certified NOx sensors in the test cells. In order to be pre certified, the owner or operator shall test each sensor. Each sensor shall meet the manufacturer's specifications, but in no case shall the sensor exceed the following tolerance levels:
    i. 0 - 100 ppm:+/- 10 ppm
    ii. 100-500 ppm:+/- 10%
3. The monitors required in Continuous Emission Monitoring Condition 1. for NOx shall be operated and the data recorded during all periods of operation including periods of startup, shutdown, malfunction or emergency conditions, except for monitor breakdowns, repairs, and when exhaust gas is below 100° C.
4. The following data requirements shall apply to all required emissions monitoring systems:
    a. The monitors required to be used shall be operated and data recorded during all periods of operation of the emission unit except for monitor breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
    b. The 1-hour average NOx emission rates measured by the monitor and flow measured by the flowmeter required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.
    c. For each hour of missing emission data (NOx) during the testing of an engine, the owner or operator shall substitute data by:
        i. Calculating the hourly emissions for P&E and PV&V test cells by using the emissions factor of 20 g/kW-hr and the power (kW) recorded for the hour of missing data.
        ii. Calculating the hourly emissions for Drivetrain test cells by using the emissions factor of 8 g/kW-hr and the power (kW) recorded for the hour of missing data.
    d. Testing of a different engine shall not begin in a test cell if the sensor is not operating correctly.

Authority for Requirement: DNR Construction Permits Referenced in Table: Test Cell Emission Limits

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 24.108(3)

Emission Point ID Numbers: See Table: Crankcase Ventilation/Oil Mist Eliminators

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Crankcase Ventilation/Oil Mist Eliminators
Emissions Control Equipment ID Number: See Table: Crankcase Ventilation/Oil Mist Eliminators
Emissions Control Equipment Description: See Table: Crankcase Ventilation/Oil Mist Eliminators

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Table: Crankcase Ventilation/Oil Mist Eliminators

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Engine Rated Capacity[(1)]	Dynamometer Rated Capacity[(1)]	Control Equipment Number	Control Equipment Description
2EWME1	2EW09	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME1	Oil Mist Eliminator
2EWME1	2EW10	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME1	Oil Mist Eliminator
2EWME1	2EW11	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME1	Oil Mist Eliminator
2EWME1	2EW13	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,600 hp	CE2EWME1	Oil Mist Eliminator
2EWME1	2EW14	Crankcase Ventilation	Diesel	18 L, 55 gal/hr	1,600 hp	CE2EWME1	Oil Mist Eliminator
2EWME1	2EW15	Crankcase Ventilation	Diesel	18 L, 55 gal/hr	1,600 hp	CE2EWME1	Oil Mist Eliminator
2EWME1	2EW16	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,600 hp	CE2EWME1	Oil Mist Eliminator
2EWME2	2E01	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2E02	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2E03	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2E04	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	2,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2EW01	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	2,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2EW02	Crankcase Ventilation	Diesel	18 L, 55 gal/hr	2,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2EW03	Crankcase Ventilation	Diesel	18 L, 55 gal/hr	1,200 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2EW04	Crankcase Ventilation	Diesel	18 L, 55 gal/hr	1,000 hp	CE2EWME2	Oil Mist Eliminator

2EWME2	2EW05	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	1,000 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2EW06	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	500 hp	CE2EWME2	Oil Mist Eliminator
2EWME2	2EW07	Crankcase Ventilation	Diesel	15 L, 39 gal/hr	500 hp	CE2EWME2	Oil Mist Eliminator

(1)The maximum rated capacity (MRC) of the engine is the largest engine that can be tested in the test cell, the maximum hourly fuel consumption rate of the largest engine, and the maximum dynamometer horse power of the test cell.

Applicable Requirements

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

The emissions from these emission points shall not exceed the levels specified below.

Emission Limits for 2EWME1 and 2EWME2:

Pollutant: Opacity
Emission Limit(s): 40%(1,2)
Authority for Requirement: DNR Construction Permits 97-A-790-P7 (2EWME1) and
97-A-791-P8 (2EWME2)
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf (3)
Authority for Requirement: DNR Construction Permits 97-A-790-P7 (2EWME1) and
97-A-791-P8 (2EWME2)
567 IAC 23.3(2)"a"

Pollutant: SO_2
Emission Limit(s): 2.5 lb/MMBTU
Authority for Requirement: DNR Construction Permits 97-A-790-P7 (2EWME1) and
97-A-791-P8 (2EWME2)
567 IAC 23.3(3)“b”

Pollutant: NO_x
Emission Limit(s): 21.2 tons/month(5,6), 151 tons/yr(5,7)
Authority for Requirement: DNR Construction Permit 97-A-790-P7 (2EWME1) and
97-A-791-P8 (2EWME2)

Emission Limits for 2EWME1:

Pollutant: PM_{10}
Emission Limit(s): 0.006 lb/hr[3,4]
Authority for Requirement: DNR Construction Permit 97-A-790-P7

Pollutant: NO_x
Emission Limit(s): 1.54 lb/hr[3,4]
Authority for Requirement: DNR Construction Permit 97-A-790-P7

Pollutant: CO
Emission Limit(s): 0.220 lb/hr[3,4]
Authority for Requirement: DNR Construction Permit 97-A-790-P7

Emission Limits for 2EWME2:

Pollutant: PM_{10}
Emission Limit(s): 0.005 lb/hr[3,4]
Authority for Requirement: DNR Construction Permit 97-A-791-P8

Pollutant: NO_x
Emission Limit(s): 1.43 lb/hr[3,4]
Authority for Requirement: DNR Construction Permit 97-A-791-P8

Pollutant: CO
Emission Limit(s): 0.20 lb/hr[3,4]
Authority for Requirement: DNR Construction Permit 97-A-791-P8

[1]The emission limit is based on a six (6) minute average.
[2]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).
[3]The emission limit is expressed as the average of three (3) stack test runs.
[4]Emission rate used in facility-wide computer aided dispersion modeling as part of Project Number 19-407 to demonstrate no predicted exceedances of the National Ambient Air Quality Standards (NAAQS).
[5]This emission limit is the total allowed for all PSD Test Cells and their associated crankcase ventilation stacks at the facility (Plant Number 07-01-087) which are those permits denoted with a "-P" (Example: 04-A-XXX-P).
[6]The emission limit is expressed as a monthly cap that is not required to include periods of startup ; shutdown, or malfunction (SSM).
[7]The emission limit is based on a twelve (12) month rolling total that includes all periods of operation.

Bubble Limits

Pollutant: NO_x
Emission Limits: 322.0[5] lb/hr[1], 222.8[4] ton/yr[2]
Authority for Requirement: Facility[3] Test Cell synthetic minor PSD limit

[1]The emission limit is expressed as the average of three (3) stack test runs.
[2]The emission limit is based on a twelve (12) month rolling total.
[3]"Facility" refers to the combination of John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).
[4]Emission limit is total combined emissions for all engine test cells at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091). The limit was established to make the combination of Product Engineering Center and Engine Works a synthetic minor source for the Prevention of Significant Deterioration (PSD) program.
[5]This emission limit was established to ensure the 18L project (IDNR PNs 18-375, 18-488, 19-221, and 19-408) did not result in a significant emission rate of 9.13 lb/hr. It was established to avoid dispersion modeling review of NOx. This emission limit covers EUs 1A06, 2A02, 2A08, 2AX07, 2AX08, 2EW03, 2EW04, 2EW14, 2EW15, 2N05, 2N07, 2N08, and 2N10.

Operating Limits 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 emission units listed in Table: Crankcase Ventilation/Oil Mist Eliminators are limited to firing on diesel fuel or biodiesel (up to B100).
B. The emission units listed in Table: Crankcase Ventilation/Oil Mist Eliminators are limited to engines manufactured or built after January 1, 2001. The owner or operator shall maintain a record/log of the manufacture/build date for all engines tested at the site.
C. The sulfur content of any fuel combusted in the engines used in the emission units listed in Condition 3 of this permit shall not exceed 15 parts per million (ppm) by weight (wt) except for limited use of a “sulfur dopant” where the fuel combusted shall not exceed 12,000 ppm. The owner or operator shall keep a log detailing the date, the type of fuel used, and the sulfur content of the fuel combusted.
D. The owner or operator shall not use more than 165 gallons of sulfur dopant per rolling twelve (12) month period at the facility (Plant Number 07-01-087). The sulfur content of the sulfur dopant used shall not exceed 0.75 pounds of sulfur per pound of additive (lb of S/lb of additive). The owner or operator shall keep the following records regarding the sulfur dopant:
    (1) A copy of the Safety Data Sheet (SDS) of any sulfur dopant used,
    (2) The date and amount of sulfur dopant is used,
    (3) Identification of the engine test cell where the sulfur dopant was used,

(4) A monthly total of the amount of sulfur dopant used at the facility (Plant Number 07-01-087), and

(5) A rolling twelve (12) month total of sulfur dopant used at the facility (Plant Number 07-01-087) for each month of operation.

E. The engines tested shall meet a particulate (filterable and condensable combined) emission factor of 0.013 lb/gal.

F. The engines tested shall meet a CO emission factor of 0.0645 lb/gal for PSD synthetic minor tracking requirements.

G. The combined total amount of fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) shall not exceed 7,150,000 gallons per year [twelve (12) month rolling total]. The owner or operator shall record the following:

(1) The combined total amount of fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) for each month of operation.

(2) The twelve (12) month rolling combined total amount of fuel used by John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091) for each month of operation.

H. The owner or operator shall record the following information to demonstrate compliance with the annual NOx limit found in Condition 1.C. (222.8 tons/yr):

(1) The combined total monthly amount of NOx recorded from the test cells with sensors at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).

(2) The combined total monthly NOx emissions from test cells without sensors at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).

(3) The combined total rolling twelve (12) month total NOx emissions from John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).

J. The following throughputs shall not be exceeded for the listed emission units:

Emission Unit ID	Throughput (hp)
2E01	500
2E02	500
2E03	500
2E04	500
2EW01	1,000
2EW02	1,000
2EW04	1,000

The owner or operator shall measure and record the brake horsepower when any of these emission units are in operation.

Authority for Requirement: DNR Construction Permits 97-A-790-P7 and 97-A-791-P8

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 34
Stack Opening, (inches, dia.): 14
Exhaust Flow Rate (scfm): 1,000
Exhaust Temperature (^{o}F): 70
Discharge Style: Unobstructed Vertical
Authority for Requirement: DNR Construction Permits 97-A-790-P7 (2EWME1) and
97-A-791-P8 (2EWMW2)

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 24.108(3)

Emission Point ID Numbers: 3A, 3B, and 3C

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Boilers

Table Boilers

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
3A	3A	Boiler 15	Natural Gas	14.65 MMBtu/hr
3B	3B	Boiler 16	Natural Gas	14.65 MMBtu/hr
3C	3C	Boiler 17	Natural Gas	14.65 MMBtu/hr

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40% [3,4)]
Authority for Requirement: DNR Construction Permits 91-A-171-S3 (3A), 91-A-172-S4 (3B), and 94-A-188-S4 (3C)
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit: 0.6 lb/MMBtu[(1)]
Authority for Requirement: DNR Construction Permits 91-A-171-S3 (3A), 91-A-172-S4 (3B), and 94-A-188-S4 (3C)
567 IAC 23.3(2)"b"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.109 lb/hr[(1,2)]
Authority for Requirement: DNR Construction Permits 91-A-171-S3 (3A), 91-A-172-S4 (3B), and 94-A-188-S4 (3C)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv[(1)]
Authority for Requirement: DNR Construction Permits 91-A-171-S3 (3A), 91-A-172-S4 (3B), and 94-A-188-S4 (3C)
567 IAC 23.3(3)"e" or 23.3(3)"b"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 1.44 lb/hr[1,5]
Authority for Requirement: DNR Construction Permits 91-A-171-S3 (3A), 91-A-172-S4 (3B), and 94-A-188-S4 (3C)

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 1.21[2] lb/hr[1]
Authority for Requirement: DNR Construction Permits 91-A-171-S3 (3A), 91-A-172-S4 (3B), and 94-A-188-S4 (3C)

[1]The emission limit is expressed as the average of three (3) stack test runs.
[2]Emission rate used in facility-wide computer aided dispersion modeling as part of Project Number 17- 228 to demonstrate no predicted exceedances of the National Ambient Air Quality Standards (NAAQS).
[3]The emission limit is based on a six (6) minute average.
[4]An exceedance of the indicator opacity of "No Visible Emissions (No VE)" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5]Emission rate used in facility-wide computer aided dispersion modeling as part of Project Number 17- 228 to demonstrate no predicted exceedances of the NAAQS or increment.

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

See Plant-Wide Operational Limits and Requirements

NSPS Subpart Dc Requirements:

These emission units are subject to Subpart A (*General Provisions*) and Subpart Dc (*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*) of the New Source Performance Standards (NSPS).

Authority for Requirement: 40 CFR Part 60 Subpart Dc
567 IAC 23.1(2)"lll"
DNR Construction Permits 91-A-171-S3, 91-A-172-S4, and 94-A-188-S4

1. Operational Limits: These emission units (EUs 3A, 3B, and 3C) shall combust only natural gas.

Reporting & Record keeping:
The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. In accordance with 40 CFR §60.40c(g)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each operating day. As an alternative to this requirement in accordance with 40 CFR §60.40c(g)(2) and 40 CFR §60.40c(g)(3), the owner or operator may elect to either:
   a. record and maintain records of the amount of each fuel combusted during each calendar month [See 40 CFR §60.40c(g)(2)] or,

   b. record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month [See 40 CFR §60.40c(g)(3)].

Authority for Requirement: 40 CFR 60 Subpart Dc
567 IAC 23.1(2)"111"
DNR Construction Permit 91-A-171-S3, 91-A-172-S4, 94-A188-S4

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Table: Boiler Emission Point Characteristics

Emission Point	Stack Height (ft. from ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temperature (ºF):	Exhaust Flowrate (scfm)	DNR Construction Permit Number
3A	52	Vertical Unobstructed	20	320	2,900	91-A-171-S3
3B	52	Vertical Unobstructed	20	320	2,900	91-A-172-S4
3C	52	Vertical Unobstructed	20	320	2,900	94-A-188-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.

Authority for Requirement: DNR Construction Permits referenced in Table: Boiler Emission Point Characteristics

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 24.108(3)

Emission Point ID Numbers: T1, T2, and T3

Associated Equipment

Table: Fuel Bulk Storage Tanks

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
T1	T1	Diesel Fuel Bulk Storage Tank 1	Diesel Fuel	20,000 gallons
T2	T2	Diesel Fuel Bulk Storage Tank 2	Diesel Fuel	20,000 gallons
T3	T3	Diesel Fuel Bulk Storage Tank 3	Diesel Fuel	20,000 gallons

Applicable Requirements

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

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit: 0.17 tons/yr[1]
Authority for Requirement: DNR Construction Permits 99-A-793-S1 (T1), 99-A-794-S1 (T2), and 99-A-795-S1 (T3)

[1] The emission limit is a combined annual potential to emit for EP-T1, EP-T2 and EP-T3 calculated using the maximum annual fuel throughput for each tank.

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

Reporting & Record keeping:
The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. A Safety Data Sheet (SDS) for any material stored in the tanks.
2. The owner or operator shall calculate and maintain record of the combined VOC PTE emissions in tons per year for EP-T1, EP-T2 and EP-T3.

Authority for Requirement: DNR Construction Permits 99-A-793-S1 (T1), 99-A-794-S1 (T2), and 99-A-795-S1 (T3)

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 25
Stack Opening, (inches, dia.): 4
Exhaust Flow Rate (acfm): 0
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permits 99-A-793-S1 (T1), 99-A-794-S1 (T2), and 99-A-795-S1 (T3)

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 24.108(3)

Emission Point ID Number: G1

Associated Equipment

Associated Emission Unit ID Number: G1

Emission Unit vented through this Emission Point: G1
Emission Unit Description: Gasoline Storage Tank
Raw Material/Fuel: Gasoline
Rated Capacity: 1,000 gallons

Applicable Requirements

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

There are no emission limits at this time.

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

Operational Limits:

1. At all times, operate and maintain the gasoline storage tank in a manner consistent with safety and good air pollution control practices for minimizing emissions.

2. Do not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
   a. Minimize gasoline spills;
   b. Clean up spills as expeditiously as practicable;
   c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
   d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

Authority for Requirement: 40 CFR Part 63 Subpart CCCCCC
567 IAC 23.1(4)"ec"

Reporting and Record keeping:

1. Record monthly gasoline throughput to demonstrate that the monthly throughput is less than 10,000 gallons.

2. Record the occurrence and duration of each malfunction of operation.

3. Record the actions taken during periods of malfunction to minimize emissions.

Authority for Requirement: 40 CFR Part 63 Subpart CCCCCC
567 IAC 23.1(4)"ec"

NESHAP:

This emission unit is subject to Subpart A (*General Provisions*) and Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: *Gasoline Dispensing Facilities.*

Authority for Requirement: 40 CFR Part 63 Subpart CCCCCC
567 IAC 23.1(4)"ec"

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 24.108(3)

Emission Point ID Number: Courtyard 2 (Emergency Diesel Engine)

Associated Equipment

Associated Emission Unit ID Number: Courtyard 2

Emission Unit vented through this Emission Point: Courtyard 2
Emission Unit Description: Emergency Diesel Engine
Raw Material/Fuel: Diesel
Rated Capacity: 617 hp

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"b"(2)

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

Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

Operating Limits

1. This engine is limited to operate as an emergency stationary internal combustion engine as defined in §60.4219 and in accordance with §60.4211(f). There is no time limit on the use of the engine in emergency situations. In accordance with §60.4211(f)(2), the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing. In accordance with §60.4211(f)(3), the

engine is also allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used for peak shaving or non-emergency demand response or to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.

2. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.

3. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel:

Parameter	Limit
Sulfur (S) Content	15 ppm (0.0015%) by weight
Minimum cetane index or maximum aromatic content	40 35% by volume

4. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g).

5. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. The owner or operator may only change emission- related engine settings that are permitted by the manufacturer.

Authority for Requirement: 40 CFR Part 60, Subpart IIII
567 IAC 23.1(2)"yyy"

Reporting & Record keeping:
The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. The owner or operator of the engine shall comply with the diesel fuel sulfur content and cetane index or aromatic content requirements listed in Operating Limit 3. above by one of the following methods:
   a. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);
   b. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
   c. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

2. The owner or operator shall maintain the following annual records:

a. the number of hours that the engine operated for maintenance checks and readiness testing; and
b. the number of hours that the engine operated for allowed non-emergency operations.
c. the total number of hours that the engine operated for maintenance checks, readiness testing, and allowed non-emergency operations.

Authority for Requirement: 40 CFR Part 60, Subpart IIII
567 IAC 23.1(2)"yyy"

NESHAP and NSPS Applicability:

NESHAP:
The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines (RICE)*. According to 40 CFR 63.6590(a)(2)(iii) this emergency engine, located at an area source, is a new stationary RICE as it was constructed on or after June 12, 2006.

The engine is a new reciprocating internal combustion engine located at an area source of HAP. In accordance with §63.6590 (c)(1), the engine must comply with the requirements of Subpart ZZZZ by meeting the requirements of NSPS subpart IIII. No further requirements apply to this engine under Subpart ZZZZ.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

NSPS:
The emergency engine is subject to 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

In accordance with §60.4211(c), the engine must be certified by its manufacturer to comply with the emissions standards for emergency engines from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are:

Pollutant	Emission Standard	Basis
Particulate Matter	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC[1] + NOx	4.0 grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§89.112 Table1

(1) Non-methane hydrocarbon

In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required. However, if the engine is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, a compliance demonstration is required in accordance with §60.4211(g).

Authority for Requirement: 40 CFR Part 60, Subpart IIII

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 24.108(3)

Emission Point ID Number: FP (Fire Pump Emergency Diesel Engine)

Associated Equipment

Associated Emission Unit ID Number: FP

Emission Unit vented through this Emission Point: FP
Emission Unit Description: Fire Pump Engine
Raw Material/Fuel: Diesel
Rated Capacity: 144 hp

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf; 0.30 g/kW-hr (0.22 g/HP-hr)
Authority for Requirement: 567 IAC 23.3(2)"a"; 40 CFR 60.4205(c)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(b)"2"

Pollutant: NMHC + NO_x
Emission Limit(s): 4.0 g/kW-hr (3.0g/HP-hr)
Authority for Requirement: 40 CFR 604205(c)

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

Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

   Authority for Requirement: 567 IAC 23.3(3)"b"(1)

Operating Limits:

1. 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.
2. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine by doing all of the following:
   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.

3. 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.

4. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required. However, if the engine is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, a compliance demonstration is required in accordance with §60.4211(g).

5. 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.

6. There is no time limit on use for emergency situations.

7. 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.

8. 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.

Authority for Requirement: 567 IAC 23.1(2)"yyy"
567 IAC 23.3(3)"b"(1)
40 CFR Part 60 Subpart IIII
40 CFR 80.510(b)

Reporting & Record keeping:
The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. The owner or operator of the engine shall comply with the diesel fuel sulfur content and cetane index or aromatic content requirements listed in Operating Limit 3. above by one of the following methods:
   a. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);
   b. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
   c. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

1. The owner or operator shall maintain the following annual records:
   a. the number of hours that the engine operated for maintenance checks and readiness testing; and
   b. the number of hours that the engine operated for allowed non-emergency operations.
   c. the total number of hours that the engine operated for maintenance checks, readiness testing, and allowed non-emergency operations

Authority for Requirement: 567 IAC 24.108(3)
567 IAC 23.1(2)"yyy"
40 CFR Part 60 Subpart IIII

NESHAP and NSPS Applicability:

NESHAP:
The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines (RICE)*. According to 40 CFR 63.6590(a)(2)(iii) this emergency engine, located at an area source, is a new stationary RICE as it was constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart IIII for compression ignition engines. No further requirements apply for this engine under Part 63.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

The emergency engine is subject to 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
Authority for Requirement: 40 CFR Part 60 Subpart IIII

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 24.108(3)

Emission Point ID Number: 5N

Associated Equipment

Associated Emission Unit ID Number: 5N
Associated Control Equipment ID Number: 5N
Associated Control Equipment Description: Dry Filter

Emission Unit vented through this Emission Point: 5N
Emission Unit Description: Paint Booth
Raw Material/Fuel: Paint
Rated Capacity: 5.0 gal/hr

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permit 80-A-008-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)
Emission Limit: 0.01 gr/dscf
Authority for Requirement: DNR Construction Permit 80-A-008-S2
567 IAC 23.4(13)

Operational Limits & Requirements

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

Operational Limits:

1. The maximum amount of surface coating materials (i.e. paint, primer, thinner, etc.) used in the paint booth shall not exceed 2,250 gallons per twelve-month rolling period.
2. The maximum VOC content of any surface coating materials (i.e., paint, primer, thinner, etc.) used in the paint booth (EU-5N) shall not exceed 8.0 pounds VOC per gallon.
3. The maximum individual HAP content of any surface coating materials (i.e., paint, primer, thinner, etc.) used in the paint booth (EU-5N) shall not exceed 4.0 pounds individual HAP per gallon.
4. The facility shall not use any surface coating materials that contain target HAP, as defined in Subpart HHHHHH, 40 CFR 63 §63.11180. Target HAP are compounds of chromium (Cr), lead (Pb), manganese (Mn), Nickel (Ni), or cadmium (Cd).

Reporting & Record keeping:

The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. The permit holder, owner or operator of the facility shall calculate and record the monthly total and the 12-month rolling total amount of each material used in the paint booth (EU-5N), in gallons.
2. The permit holder, owner or operator of the facility shall record the VOC content of any surface coating material (i.e., paint, primers, solvents, etc.) used in the booth (EU-5N), in pounds per gallon.
3. The permit holder, owner or operator of the facility shall record the individual HAP content of any surface coating material (i.e., paint, primers, solvents, etc.) used in the booth (EU-5N), in pounds per gallon.
4. The permit holder, owner or operator of the facility shall maintain manufacturer/vendor provided information (i.e., Safety Data Sheets (SDS), technical data sheets, etc.) of all materials used in the affected paint booth, which clearly indicates the VOC and HAP content of that material.

Authority for Requirement: DNR Construction Permit 80-A-008-S2

NESHAP Requirements

This emission unit is subject to Subpart A (*General Provisions*) and Subpart HHHHHH (National Emission Standards for Hazardous Air Pollutants: *Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources*), 40 CFR §63.11169 through 40 CFR §63.11180 as an existing source. The facility is considered exempt to this subpart since the facility spray applies no coatings that contain the target HAPs. Target HAPs are compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). Should the facility change its operations to

include spray applying coating that contain the target HAP, the facility shall be required to comply with the requirements of Subpart HHHHHH.

Authority for Requirement: 40 CFR Part 63 Subpart HHHHHH
567 IAC 23.1(4)"eh"
DNR Construction Permit 80-A-008-S2

Emission Point Characteristics

This emission point shall conform to the specifications listed below.
Stack Height, (ft, from the ground): 36.6
Stack Opening, (inches, dia.): 48
Exhaust Flow Rate (acfm): 42,000
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Vertical unobstructed
Authority for Requirement: DNR Construction Permit 80-A-008-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that 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 24.108(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 (IAC). When 567 IAC as amended May 15, 2024, and cited in this permit becomes State Implementation Plan (SIP) approved, it will supersede 567 IAC as amended February 8, 2023. Prior to May 15, 2024, all Title V rule citations in this Title V permit were found and cited in 567 IAC Chapter 22. During the period from May 15, 2024, to the date that 567 IAC as amended May 15, 2024, is approved into the SIP, both 567 IAC as amended May 15, 2024, and 567 IAC as amended February 8, 2023 form the legal basis for the applicable requirements included in this permit. A crosswalk showing the citation changes is attached to this permit in Appendix B.

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 24.108(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 24.105(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 24.108(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 24.108(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 24.108(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 24.108(15)"c"*

G2. Permit Expiration

1. Except as provided in rule 567—24.104(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—24.105(455B). *567 IAC 24.116(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. 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 24.105(2). *567 IAC 24.105*

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 24.107(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 24.108(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 24.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 24.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 24.106 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 24.115(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 24.108 (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 24.108 (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 21.8(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 24.108(4), 567 IAC 24.108(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 24;

b. Compliance test methods specified in 567 Chapter 21; 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 24.108(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 21.10(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 21.10(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 21.7(1)-567 IAC 21.7(4)*

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 24.108(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 24.
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—24.140(455B) through 567 - 24.144(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 24.110(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 24.110(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 24.110(1). *567 IAC 24.110(3)*

4. The permit shield provided in subrule 24.108(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 24.110(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 24.108(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 - 24.113(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 24.107(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 24.107(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 24.112(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 24, 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 24.111-567 IAC 24.113*

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 24.108(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 24.108(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 24.108(17)"a", 567 IAC 24.108(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 24.114(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 24.114(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 24.114(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 24.108 (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 24.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 24.108 (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 24.111(1). *567 IAC 24.111 (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 24.3(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 (42 days) 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
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 343-6589

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 21.10(7)"a", 567 IAC 21.10(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
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 313-8325

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
6200 Park Ave
Suite 200
Des Moines, IA 50321
(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. Appendix A

Links to Standards

A. 40 CFR 60 Subpart A – *General Provisions* for New Source Performance Standards.
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.a

B. 40 CFR Part 60 Subpart Dc - Standards of Performance for *Small Industrial Commercial Institutional Steam Generating Units.*
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.d_0c

C. 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/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.k_0b

D. 40 CFR Part 60 Subpart IIII Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines.*
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.iiii

E. 40 CFR 63 Subpart A – *General Provisions* for National Emission Standards for Hazardous Air Pollutants.
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.10.63.a

F. 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines.*
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.zzzz

G. 40 CFR Part 63 Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Source Category: *Gasoline Dispensing Facilities.*
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.15.63.cccccc

H. 40 CFR Part 63 Subpart HHHHHH National Emission Standards for Hazardous Air Pollutants for Area Sources: *Paint Stripping and Miscellaneous Surface Coating Operations*.
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.15.63.hhhhhh

VI. Appendix B: Executive Order 10 (EO10) Rules Crosswalk

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
20	**20 (Reserved)**	Scope of Title - Definitions	N/A	**Definitions moved** to Ch. 21, 22 and 23. **Rescinded** Ch. 20. (Reserved)
21	**21**	Compliance	Compliance, Excess Emissions, and Measurement of Emissions	**Kept and combined** with rules from Chapters 24, 25, 26, and 29.
22	**22**	Controlling Pollution-Permits	Controlling Air Pollution - Construction Permitting	**Kept construction permit rules and combined** with Ch. 20 (definitions) and Ch. 28 (NAAQS). **Moved operating permit rules** to Chapter 24.
22.100 - 22.300(12)	**(New) 24**	N/A	Operating Permits	**Moved operating permit rules** from Ch. 22 to Ch. 24.
23	**23**	Emission Standards	Air Emission Standards	**Kept**
24	**(New) 21**	Excess Emissions	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Moved TV rules** here (to Ch. 24)**.**
25	**(New) 21**	Emissions Measurement	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 25. (Reserved)
26	**(New) 21**	Emergency Air Pollution Episodes	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 26. (Reserved)
27	**27**	Local Program Acceptance	Local Program Acceptance	**Kept**
28	**22**	NAAQS	N/A	**Moved rules and combined** with Ch. 22. **Rescinded** Ch. 28. (Reserved)
29	**(New) 21**	Opacity Qualifications	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 29. (Reserved)
30	**30**	Fees	Fee	**Kept**
31	**31**	Nonattainment Areas	Nonattainment New Source Review	**Kept**
32	**N/A**	AFO Field Study	N/A	**Rescinded** Ch. 32. (Reserved)
33	**33**	Special regulations and construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD) of air quality	Construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD)	**Kept**
34	**N/A**	Emissions Trading-CAIR-CAMR	N/A	**Rescinded** Ch. 34. (Reserved)
35	**N/A**	Grant Assistance Programs	N/A	**Rescinded** Ch. 35. (Reserved)

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
20	**20 (Reserved)**	**Scope of Title - Definitions**	**N/A**	**Definitions moved** to Ch. 21, 22 and 23. **Rescinded** Ch. 20. (Reserved)
20.1	N/A	Scope of title	N/A	
20.2	Ch. 21, 22, 23	Definitions	Definitions	See beginning of Ch. 21, 22, and 23
20.3	N/A	Air quality forms generally	N/A	
21	**21**	**Compliance**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Kept and combined** with rules from Chapters 24, 25, 26, and 29.
21.1	21.1	Compliance Schedule	Definitions and compliance requirements	Added definitions from Ch. 21, some language updated
21.2	21.2	Variances	Variances	Some language updated
21.3	21.3	Emission reduction program	Reserved	Reserved
21.4	21.4	Circumvention of rules	Circumvention of rules	Minor language updated
21.5	21.5	Evidence used in establishing that a violation has or is occurring	Evidence used in establishing that a violation has occurred or is occurring	21.5(2) Reserved, some language updated
21.6	21.6	Temporary electricity generation for disaster situations	Temporary electricity generation for disaster situations	Minor language updated
24.1	21.7	Excess emission reporting	Excess emission reporting	Moved from Ch. 24, some language updated
24.2	21.8	Maintenance and repair requirements	Maintenance and repair requirements	Moved from Ch. 24, some language updated
N/A	21.9	N/A	Compliance with other requirements	New language
25.1	21.10	Testing and sampling of new and existing equipment	Testing and sampling of new and existing equipment	Moved from Ch. 25, some language updated
25.2	21.11	Continuous emission monitoring under the acid rain program	Continuous emission monitoring under the acid rain program	Moved from Ch. 25, some language updated
25.3	N/A	Mercury emissions testing and monitoring	N/A	Rescinded. Except 25.3(5)
25.3(5)	21.12	Affected sources subject to Section 112(g)	Affected sources subject to Section 112(g)	Moved from Ch. 25, some language updated
29.1	21.13	Methodology and qualified observer	Methodology and qualified observer	Moved from Ch. 29, some language updated
26.1	21.14	Prevention of air pollution emergency episodes - General	Prevention of air pollution emergency episodes	Moved from Ch. 26, some language updated
26.2	21.15	Episode criteria	Episode criteria	Moved from Ch. 26, some language updated
26.3	21.16	Preplanned abatement strategies	Preplanned abatement strategies	Moved from Ch. 26, some language updated
26.4	21.17	Actions taken during episodes	Actions taken during episodes	Moved from Ch. 26, some language updated
Ch 26 Table III	Table I	Abatement strategies emission reduction actions alert level	Abatement strategies emission reduction actions alert level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table IV	Table II	Abatement strategies emission reduction actions warning level	Abatement strategies emission reduction actions warning level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table V	Table III	Abatement strategies emission reduction actions emergency level	Abatement strategies emission reduction actions emergency level	Moved from Ch. 26, reference federal appendix table
22	**22**	**Controlling Pollution-Permits**	**Controlling Air Pollution - Construction Permitting**	**Kept construction permit rules and combined** with Ch. 20 (definitions) and Ch. 28 (NAAQS). **Moved operating permit rules** to Chapter 24.
22.1	22.1	Permits required for new or existing stationary sources	Definitions and permit requirements for new or existing stationary sources	Added definitions from Ch. 20, some language updated
22.2	22.2	Processing permit applications	Processing permit applications	
22.3	22.3	Issuing permits	Issuing permits	
22.4	22.4	Special requirements for major stationary sources located in areas designated attainment or unclassified (PSD)	Major stationary sources located in areas designated attainment or unclassified (PSD)	
22.5	22.5	Special requirements for nonattainment areas	Major stationary sources located in areas designated Nonattainment	
22.6	22.6	Nonattainment area designations	Reserved	

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
22.7	22.7	Alternative emission control program	Alternative emission control program	
22.8	22.8	Permit by rule	Permit by rule	
22.9	22.9	Special requirements for visibility protection	Special requirements for visibility protection	A lot of language updated or removed
22.10	22.10	Permitting requirements for country grain elevators, country grain terminal elevators, grain terminal elevators and feed mill equipment	Permitting requirements for country grain elevators, country grain terminal elevators, grain terminal elevators and feed mill equipment	
28.1	22.11	Ambient air quality standards - Statewide standards	Ambient air quality standards	Moved from Ch. 28, minor language updated
22.12 to 22.99	N/A	Reserved	N/A	Removed

22.100 - 22.300(12)	**(New) 24**	**N/A**	**Operating Permits**	**Moved operating permit rules** from Ch. 22 to Ch. 24.
22.100	24.100	Definitions for Title V operating permits	Definitions for Title V operating permits	Moved from Ch. 22, some language updated, many 40 CFR 70 definitions adopted by reference
22.101	24.101	Applicability of Title V operating permit requirements	Applicability of Title V operating permit requirements	Moved from Ch. 22, some language updated to correct punctuation and remove old dates
22.102	24.102	Source category exemptions	Source category exemptions	Moved from Ch. 22, some language updated to correct punctuation
22.103	24.103	Insignificant activities	Insignificant activities	Moved from Ch. 22, some language updated to correct typos and remove old dates
22.104	24.104	Requirement to have a Title V permit	Requirement to have a Title V permit	Moved from Ch. 22, some language updated no changes to rule text
22.105	24.105	Title V permit applications	Title V permit applications	Moved from Ch. 22, updated language to address electronic submissions and remove past application due dates
22.106	24.106	Annual Title V emissions inventory	Annual Title V emissions inventory	Moved from Ch. 22, no changes to rule text
22.107	24.107	Title V permit processing procedures	Title V permit processing procedures	Moved from Ch. 22, some language updated to update locations of public records and remove old CFR amendment dates
22.108	24.108	Permit content	Permit content	Moved from Ch. 22, some language updated to correct punctuation, remove old dates, and adopt 40 CFR 70 rules by reference
22.109	24.109	General permits	General permits	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.110	24.110	Changes allowed without a Title V permit revision (off-permit revisions)	Changes allowed without a Title V permit revision (off-permit revisions)	Moved from Ch. 22, some language updated to remove redundant language
22.111	24.111	Administrative amendments to Title V permits	Administrative amendments to Title V permits	Moved from Ch. 22, no changes to rule text
22.112	24.112	Minor Title V permit modifications	Minor Title V permit modifications	Moved from Ch. 22, no changes to rule text
22.113	24.113	Significant Title V permit modifications	Significant Title V permit modifications	Moved from Ch. 22, no changes to rule text
22.114	24.114	Title V permit reopenings	Title V permit re-openings	Moved from Ch. 22 to Ch. 24, some language updated to adopt 40 CFR 70 rules by reference
22.115	24.115	Suspension, termination, and revocation of Title V permits	Suspension, termination, and revocation of Title V permits	Moved from Ch. 22, no changes to rule text
22.116	24.116	Title V permit renewals	Title V permit renewals	Moved from Ch. 22, no changes to rule text
22.117-22.119	24.117-24.119	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.120	24.120	Acid rain program—definitions	Acid rain program—definitions	Moved from Ch. 22, some language updated to remove old CFR amendment dates and address electronic submissions
22.121	24.121	Measurements, abbreviations, and acronyms	Reserved	Moved from Ch. 22, no changes to rule text
22.122	24.122	Applicability	Applicability	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.123	24.123	Acid rain exemptions	Acid rain exemptions	Moved from Ch. 22, some language updated to correct punctuation
22.124	24.124	Retired units exemption	Reserved	Moved from Ch. 22, no changes to rule text
22.125	24.125	Standard requirements	Standard requirements	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.126	24.126	Designated representative—submissions	Designated representative—submissions	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.127	24.127	Designated representative—objections	Designated representative—objections	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.128	24.128	Acid rain applications—requirement to apply	Acid rain applications—requirement to apply	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference

22.129	24.129	Information requirements for acid rain permit applications	Information requirements for acid rain permit applications	Moved from Ch. 22, no changes to rule text
Previous Chapter Number (Prior to 5/15/2024)	**Current Chapter Number**	**Previous Title and Description (Prior to 5/15/2024)**	**Current Title and Description**	**Actions Taken**
22.130	24.130	Acid rain permit application shield and binding effect of permit application	Acid rain permit application shield and binding effect of permit application	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.131	24.131	Acid rain compliance plan and compliance options—general	Acid rain compliance plan and compliance options—general	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.132	24.132	Repowering extensions	Reserved	Moved from Ch. 22, no changes to rule text
22.133	24.133	Acid rain permit contents—general	Acid rain permit contents—general	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.134	24.134	Acid rain permit shield	Acid rain permit shield	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.135	24.135	Acid rain permit issuance procedures—general	Acid rain permit issuance procedures—general	Moved from Ch. 22, no changes to rule text
22.136	24.136	Acid rain permit issuance procedures—completeness	Acid rain permit issuance procedures—completeness	Moved from Ch. 22, no changes to rule text
22.137	24.137	Acid rain permit issuance procedures—statement of basis	Acid rain permit issuance procedures—statement of basis	Moved from Ch. 22, no changes to rule text
22.138	24.138	Issuance of acid rain permits	Issuance of acid rain permits	Moved from Ch. 22, some language updated to remove old dates and deadlines
22.139	24.139	Acid rain permit appeal procedures	Acid rain permit appeal procedures	Moved from Ch. 22, no changes to rule text
22.140	24.140	Permit revisions—general	Permit revisions—general	Moved from Ch. 22, some language updated to remove old dates
22.141	24.141	Permit modifications	Permit modifications	Moved from Ch. 22, no changes to rule text
22.142	24.142	Fast-track modifications	Fast-track modifications	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.143	24.143	Administrative permit amendment	Administrative permit amendment	Moved from Ch. 22, some language updated to remove fax option
22.144	24.144	Automatic permit amendment	Automatic permit amendment	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.145	24.145	Permit reopenings	Permit re-openings	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.146	24.146	Compliance certification—annual report	Compliance certification—annual report	Moved from Ch. 22, no changes to rule text
22.147	24.147	Compliance certification—units with repowering extension plans	Reserved	Moved from Ch. 22, no changes to rule text
22.148	24.148	Sulfur dioxide opt-ins	Sulfur dioxide opt-ins	Moved from Ch. 22, some language updated to update the 40 CFR Part 74 amendment date
22.149 - 22.199	24.149 - 24.299	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.200	24.200 - 24.299	Definitions for voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.201	24.200 - 24.299	Eligibility for voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.203	24.200 - 24.299	Voluntary operating permit applications	Reserved	Moved from Ch. 22, no changes to rule text
22.204	24.200 - 24.299	Voluntary operating permit fees	Reserved	Moved from Ch. 22, no changes to rule text
22.205	24.200 - 24.299	Voluntary operating permit processing procedures	Reserved	Moved from Ch. 22, no changes to rule text
22.206	24.200 - 24.299	Permit content	Reserved	Moved from Ch. 22, no changes to rule text
22.207	24.200 - 24.299	Relation to construction permits	Reserved	Moved from Ch. 22, no changes to rule text
22.208	24.200 - 24.299	Suspension, termination, and revocation of voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.209	24.200 - 24.299	Change of ownership for facilities with voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.210 - 22.299	24.200 - 24.299	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.300	24.300	Operating permit by rule for small sources	Operating permit by rule for small sources	Moved from Ch. 22, no changes to rule text

23	**23**	**Emission Standards**	**Air Emission Standards**	**Kept**
23.1	23.1	Emission standards	Emission standards	Kept, language updated, tables used
23.2	23.2	Open burning	Open burning	Kept, some language updated
23.3	23.3	Specific contaminants	Specific contaminants	Kept, some language updated
23.4	23.4	Specific processes	Specific processes	Kept, some language updated
23.5	23.5	Anaerobic lagoons	Anaerobic lagoons	Kept, some language updated
23.6	23.6	Alternative emission limits (the “bubble concept”)	Reserved	Removed

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
24	**(New) 21**	**Excess Emissions**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Moved operating permit rules** here (to Ch. 24)**.**
24.1	21.7	Excess emission reporting	Excess emission reporting	Moved from Ch. 24, some language updated
24.2	21.8	Maintenance and repair requirements	Maintenance and repair requirements	Moved from Ch. 24, some language updated
25	**(New) 21**	**Emissions Measurement**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 25. (Reserved)
25.1	21.10	Testing and sampling of new and existing equipment	Testing and sampling of new and existing equipment	Moved from Ch. 25, some language updated
25.2	21.11	Continuous emission monitoring under the acid rain program	Continuous emission monitoring under the acid rain program	Moved from Ch. 25, some language updated
25.3		Mercury emissions testing and monitoring	N/A	Rescinded. Except 25.3(5)
25.3(5)	21.12	Affected sources subject to Section 112(g)	Affected sources subject to Section 112(g)	Moved from Ch. 25, some language updated
26	**(New) 21**	**Emergency Air Pollution Episodes**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 26. (Reserved)
26.1	21.14	Prevention of air pollution emergency episodes - General	Prevention of air pollution emergency episodes	Moved from Ch. 26, some language updated
26.2	21.15	Episode criteria	Episode criteria	Moved from Ch. 26, some language updated
26.3	21.16	Preplanned abatement strategies	Preplanned abatement strategies	Moved from Ch. 26, some language updated
26.4	21.17	Actions taken during episodes	Actions taken during episodes	Moved from Ch. 26, some language updated
Ch 26 Table III	Table I	Abatement strategies emission reduction actions alert level	Abatement strategies emission reduction actions alert level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table IV	Table II	Abatement strategies emission reduction actions warning level	Abatement strategies emission reduction actions warning level	Moved from Ch. 26, reference federal appendix table
Ch 26Table V	Table III	Abatement strategies emission reduction actions emergency level	Abatement strategies emission reduction actions emergency level	Moved from Ch. 26, reference federal appendix table
27	**27**	**Local Program Acceptance**	**Local Program Acceptance**	**Kept**
27.1	27.1	General	General	Kept, some language updated
27.2	27.2	Certificate of acceptance	Certificate of acceptance	Kept, some language updated
27.3	27.3	Ordinance or regulations	Ordinance or regulations	Kept, some language updated
27.4	27.4	Administrative organization	Administrative organization	Kept, some language updated
27.5	27.5	Program activities	Program activities	Kept, some language updated
28	**22**	**NAAQS**	**N/A**	**Moved rules and combined** with Ch. 22. **Rescinded** Ch. 28. (Reserved)
28.1	22.11	Ambient air quality standards - Statewide standards	Ambient air quality standards	**Moved from Ch. 28**, minor language updated **Rescinded** Ch. 28. (Reserved)
29	**(New) 21**	**Opacity Qualifications**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 29. (Reserved)
29.1	21.13	Methodology and qualified observer	Methodology and qualified observer	Moved from Ch. 29, some language updated

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
30	**30**	**Fees**	**Fee**	**Kept**
30.1	30.1	Purpose	Purpose	Kept, language updated
30.2	30.2	Fees associated with new source review applications	Fees associated with new source review applications	Kept, some language updated
30.3	30.3	Fees associated with asbestos demolition or renovation notification	Fees associated with asbestos demolition or renovation notification	Kept, some language updated
30.4	30.4	Fees associated with Title V operating permits	Fees associated with Title V operating permits	Kept, some language updated
30.5	30.5	Fee advisory groups	Fee advisory groups	Kept, language updated
30.6	30.6	Process to establish or adjust fees and notification of fee rates	Process to establish or adjust fees and notification of fee rates	Kept, some language updated
30.7	30.7	Fee revenue	Reserved	Language removed
31	**31**	**Nonattainment Areas**	**Nonattainment New Source Review**	**Kept**
31.1	31.1	Permit requirements relating to nonattainment areas	Permit requirements relating to nonattainment areas	Kept, some language updated
31.2	31.2	Conformity of general federal actions to the Iowa state implementation plan or federal implementation plan - Rescinded	Reserved	Language removed
31.3	31.3	Nonattainment new source review requirements for areas designated nonattainment on or after May 18, 1998	Nonattainment new source review (NNSR) requirements for areas designated nonattainment	Kept, some language updated
31.4	31.4	Preconstruction review permit program	Preconstruction review permit program	Kept
31.5 - 31.8	31.5 - 31.8	Reserved	Reserved	Kept
31.9	31.9	Actuals PALs	Actuals PALs	Kept, some language updated
31.10	31.10	Validity of rules	Validity of rules	Kept
31.11 - 31.19	N/A	Reserved	N/A	Rescinded and removed
31.20	N/A	Special requirements for nonattainment areas designated before May 18, 1998	N/A	Rescinded and removed
32	**N/A**	**AFO Field Study**	**N/A**	**Rescinded** Ch. 32. (Reserved)
32.1	N/A	Animal feeding operations field study	N/A	Rescinded, reserved, and language removed
32.2	N/A	Definitions	N/A	Rescinded, reserved, and language removed
32.3	N/A	Exceedance of the health effects value (HEV) for hydrogen sulfide	N/A	Rescinded, reserved, and language removed
32.4	N/A	Exceedance of the health effects standard (HES) for hydrogen sulfide	N/A	Rescinded, reserved, and language removed
32.5	N/A	Iowa Air Sampling Manual	N/A	Rescinded, reserved, and language removed
33	**33**	**Special regulations and construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD) of air quality**	**Construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD)**	**Kept**
33.1	33.1	Purpose	Purpose	Kept, some language updated
33.2	33.2	Reserved	Reserved	Kept
33.3	33.3	Special construction permit requirements for major stationary sources in areas designated attainment or unclassified (PSD)	PSD construction permit requirements for major stationary sources	Kept, some language updated
33.4 - 33.8	33.4 - 33.8	Reserved	Reserved	Kept
33.9	33.9	Plantwide applicability limitations (PALs)	Plantwide applicability limitations (PALs)	Kept, some language updated
33.10	33.10	Exceptions to adoption by reference	Exceptions to adoption by reference	Kept, some language updated

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
34	**N/A**	**Emissions Trading-CAIR-CAMR**	**N/A**	**Rescinded** Ch. 34. (Reserved)
34.1	N/A	Purpose	N/A	Rescinded, reserved, and language removed
34.2 - 34.199	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.200	N/A	Provisions for air emissions trading and other requirements for the Clean Air Interstate Rule (CAIR) - rescinded	N/A	Rescinded, reserved, and language removed
34.201	N/A	CAIR NOx annual trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.202	N/A	CAIR designated representative for CAIR NOx sources - rescinded	N/A	Rescinded, reserved, and language removed
34.203	N/A	Permits - rescinded	N/A	Rescinded, reserved, and language removed
34.204	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.205	N/A	CAIR NOx allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.206	N/A	CAIR NOx allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed
34.207	N/A	CAIR NOx allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
34.208	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.209	N/A	CAIR NOx opt-in units - rescinded	N/A	Rescinded, reserved, and language removed
34.210	N/A	CAIR SO2 trading program - rescinded	N/A	Rescinded, reserved, and language removed
34.211 - 34.219	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.220	N/A	CAIR NOx ozone season trading program - rescinded	N/A	Rescinded, reserved, and language removed
34.221	N/A	CAIR NOx ozone season trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.222	N/A	CAIR designated representative for CAIR NOx ozone season sources - rescinded	N/A	Rescinded, reserved, and language removed
34.223	N/A	CAIR NOx ozone season permits - rescinded	N/A	Rescinded, reserved, and language removed
34.224	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.225	N/A	CAIR NOx ozone season allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.226	N/A	CAIR NOx ozone season allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed
34.227	N/A	CAIR NOx ozone season allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
34.228	N/A	CAIR NOx ozone season monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.229	N/A	CAIR NOx ozone season opt-in units - rescinded	N/A	Rescinded, reserved, and language removed
34.230 - 34.299	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.300	N/A	Provisions for air emissions trading and other requirements for the Clean Air Mercury Rule (CAMR) - rescinded	N/A	Rescinded, reserved, and language removed
34.301	N/A	Mercury (Hg) budget trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.302	N/A	Hg designated representative for Hg budget sources - rescinded	N/A	Rescinded, reserved, and language removed
34.303	N/A	General Hg budget trading program permit requirements - rescinded	N/A	Rescinded, reserved, and language removed
34.304	N/A	Hg allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.305	N/A	Hg allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed

34.306	N/A	Hg allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
Previous Chapter Number (Prior to 5/15/2024)	**Current Chapter Number**	**Previous Title and Description (Prior to 5/15/2024)**	**Current Title and Description**	**Actions Taken**
34.307	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.308	N/A	Performance specifications - rescinded	N/A	Rescinded, reserved, and language removed

35	**N/A**	**Grant Assistance Programs**	**N/A**	**Rescinded** Ch. 35. (Reserved)
35.1	N/A	Purpose	N/A	Rescinded, reserved, and language removed
35.2	N/A	Definitions	N/A	Rescinded, reserved, and language removed
35.3	N/A	Role of the department of natural resources	N/A	Rescinded, reserved, and language removed
35.4	N/A	Eligible projects	N/A	Rescinded, reserved, and language removed
35.5	N/A	Forms	N/A	Rescinded, reserved, and language removed
35.6	N/A	Project selection	N/A	Rescinded, reserved, and language removed
35.7	N/A	Funding sources	N/A	Rescinded, reserved, and language removed
35.8	N/A	Type of financial assistance	N/A	Rescinded, reserved, and language removed
35.9	N/A	Term of loans	N/A	Rescinded, reserved, and language removed
35.10	N/A	Reduced award	N/A	Rescinded, reserved, and language removed
35.11	N/A	Fund disbursement limitations	N/A	Rescinded, reserved, and language removed
35.12	N/A	Applicant cost share	N/A	Rescinded, reserved, and language removed
35.13	N/A	Eligible costs	N/A	Rescinded, reserved, and language removed
35.14	N/A	Ineligible costs	N/A	Rescinded, reserved, and language removed
35.15	N/A	Written agreement	N/A	Rescinded, reserved, and language removed
35.16	N/A	Financial assistance denial	N/A	Rescinded, reserved, and language removed