

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

**Name of Permitted Facility: John Deere Engine Works**  
**Facility Location: 3801 W. Ridgeway Avenue, Waterloo, IA 50704**  
**Air Quality Operating Permit Number: 04-TV-018R3-M001**  
**Expiration Date: 04/26/2027**  
**Permit Renewal Application Deadline: 10/26/2026**

**EIQ Number: 92-1318**  
**Facility File Number: 07-01-091**

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**Responsible Official**

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit. Two Title V Permits have been issued for John Deere Engine Works and John Deere Product Engineering Center (which are considered one stationary source). This permit is for John Deere Engine Works and another, separate permit has been issued for John Deere Product Engineering Center.

**For the Director of the Department of Natural Resources**



04/24/2024

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Marnie Stein, Supervisor of Air Operating Permits Section

Date

# Table of Contents

<b>I. Facility Description and Equipment List .....</b>	<b>4</b>
<b>II. Plant - Wide Conditions.....</b>	<b>8</b>
<b>III. Emission Point Specific Conditions .....</b>	<b>11</b>
<b>IV. General Conditions.....</b>	<b>50</b>
G1. Duty to Comply	
G2. Permit Expiration	
G3. Certification Requirement for Title V Related Documents	
G4. Annual Compliance Certification	
G5. Semi-Annual Monitoring Report	
G6. Annual Fee	
G7. Inspection of Premises, Records, Equipment, Methods and Discharges	
G8. Duty to Provide Information	
G9. General Maintenance and Repair Duties	
G10. Recordkeeping Requirements for Compliance Monitoring	
G11. Evidence used in establishing that a violation has or is occurring.	
G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification	
G13. Hazardous Release	
G14. Excess Emissions and Excess Emissions Reporting Requirements	
G15. Permit Deviation Reporting Requirements	
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations	
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification	
G18. Duty to Modify a Title V Permit	
G19. Duty to Obtain Construction Permits	
G20. Asbestos	
G21. Open Burning	
G22. Acid Rain (Title IV) Emissions Allowances	
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements	
G24. Permit Reopenings	
G25. Permit Shield	
G26. Severability	
G27. Property Rights	
G28. Transferability	
G29. Disclaimer	
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification	
G31. Prevention of Air Pollution Emergency Episodes	
G32. Contacts List	
<b>V. Appendix A.....</b>	<b>65</b>

## Abbreviations

acfm.....	actual cubic feet per minute
CE .....	control equipment
CEM.....	continuous emission monitor
CFR.....	Code of Federal Regulation
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP .....	emission point
EU .....	emission unit
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
SCC .....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC .....	Standard Industrial Classification
tpy .....	tons per year
USEPA.....	United States Environmental Protection Agency

### **Pollutants**

PM.....	particulate matter
PM <sub>10</sub> .....	particulate matter ten microns or less in diameter
SO <sub>2</sub> .....	sulfur dioxide
NO <sub>x</sub> .....	nitrogen oxides
VOC .....	volatile organic compound
CO.....	carbon monoxide
HAP.....	hazardous air pollutant

# I. Facility Description and Equipment List

Facility Name: John Deere Engine Works

Permit Number: 04-TV-018R3-M001

Facility Description: Internal Combustion Engines (SIC 3519)

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
PBRZ1	PBRZ1	Paint Booth Robot Zone 1	08-A-472-S3
PBRZ2	PBRZ2	Paint Booth Robot Zone 2	08-A-473-S3
PBMZ1	PBMZ1	Paint Booth Manual Zone 1	08-A-474-S3
PBMZ2	PBMZ2	Paint Booth Manual Zone 2	08-A-475-S3
32	32	Flash Off Tunnel	10-A-330-S1
33	33	Final Cure Oven	10-A-331-S1
RPB	RPB	Rust Preventative Booth	03-A-210-S4
B2	B2	Boiler #2	20-A-008
B3	B3	Boiler #3	18-A-289-S1
B4	B4	Boiler #4	14-A-483-S3
96	96	Gasoline Fuel Island	N.A.
100TC3	100TC3	Engine Test Cell #3	97-A-161-S7
100TC4	100TC4	Engine Test Cell #4	97-A-162-S7
100TC7	100TC7	Engine Test Cell #7	97-A-165-S7
100TC8	100TC8	Engine Test Cell #8	97-A-166-S7
100TC9	100TC9	Engine Test Cell #9	97-A-167-S7
100TC10	100TC10	Engine Test Cell #10	97-A-168-S7
100TC11	100TC11	Engine Test Cell #11	97-A-169-S7
100TC12	100TC12	Engine Test Cell #12	97-A-170-S7
100TC15	100TC15	Engine Test Cell # 15	09-A-511-S4
100TC16	100TC16	Engine Test Cell # 16	09-A-512-S4
104	104	Fire Pump Diesel Engine West (170 hp)	N.A.
108	108	Fire Pump Diesel Engine East (265 hp)	N.A.
110	110	Emergency Generator (755 bhp)	12-A-573-S1

### Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
1	Laser Engraver
2	Laser Engraver
22	Solvent Distillation Room
86	Engine Cooling Fluid Tank (2,800 gallons)
87	Test Cell Fuel Tank (650 Gallons Diesel)
88	Test Cell Oil Tank (800 Gallons Engine Oil)
89	Bulk Diesel Tank (20,000 Gallons)
105	Fire Pump Diesel Tank West (575 gallons)
107	Fire Pump Diesel Tank East (275 gallons)
109	Bulk Engine Oil Tank (20,000 gallons)
GEN	Generator Diesel Tank (884 gallons)
FID	Fuel Island Diesel Tank (275 gallons)
TU	Non-Aerosol Touch Up Painting
145	Robotic Welding
146	Oily Waste Tank (4,000 gallons)
147	Tank 7 Overflow (2,000 gallons)
3D1	3D Printer(s)
N12	Inspection Booth
R1	Ranchero Road Engine Testing
Insignificant Emission Unit Number	Direct-fired Natural Gas Equipment (ZEU1)
7	Reheat Furnace 9194 (1 MMBtu/hr)
9	Compactor Door Heater (0.99 MMBtu/hr)
10	Compactor Area Heater (0.4 MMBtu/hr)
11	S450 Block Line Blow-Off Air Heater (0.4 MMBtu/hr)
12	South Dock Door Heater – East (1.0 MMBtu/hr)
13	South Dock Door Heater – West (1.0 MMBtu/hr)
15	AHU Paint Building Heat (2.85 MMBtu/hr)
16	AHU Paint Building Heat (2.85 MMBtu/hr)
17	AHU Manual Spray Heat (2.85 MMBtu/hr)
18	Dry Off Oven Heater (2.0 MMBtu/hr)
122	Area Heater West Pump House (0.105 MMBtu/hr)
136	East Truck Dock South Heater (0.4 MMBtu/hr)
137	East Truck Dock North Heater (0.4 MMBtu/hr)

138	Door # 8 West Heater (0.99 MMBtu/hr)
139	Door # 8 East Heater (0.99 MMBtu/hr)
140	Area Heater (0.4 MMBtu/hr)
141	Stockroom Door Heater (0.99 MMBtu/hr)
148	SW Dock Door Heater (0.4 MMBtu/hr)

<b>Insignificant Emission Unit Number</b>	<b>Indirect-fired Natural Gas Equipment (ZEU2)</b>
56	Water Heater (0.8 MMBtu/hr)
57	Water Heater (0.8 MMBtu/hr)
59	Truck Shop Water Heater (0.39 MMBtu/hr)
60	Water Heater 12080 (4.5 MMBtu/hr)
65	Water Heater 8690 (0.35 MMBtu/hr)
72	Water Heater 13509 (0.5 MMBtu/hr)
76	Water Heater 13582 (1 MMBtu/hr)
77	Water Heater 13583 (1 MMBtu/hr)
78	Water Heater S450 Blocks (1.5 MMBtu/hr)
79	Water Heater 13693 (1 MMBtu/hr)
90	Domestic Water Heater – west (0.35 MMBtu/hr)
111	Fire Pump West Heater (Raypak) (0.399 MMBtu)
112	Fire Pump West Heater (Raypak) (0.399 MMBtu)
132	Engine Jacket Water Heater (0.35 MMBtu/hr)
133	Domestic Water Heater – East (0.35 MMBtu/hr)
143	Snow Melt Heater (0.35 MMBtu/hr)
<b>Insignificant Emission Unit Number</b>	<b>Washers Units (Aqueous) (ZEU3)</b>
56W	In-line Washer
57W	In-line Washer
65W	In-Line Washer
72W	In-line Washer
76W	In-line Washer
77W	In-line Washer
78W	In-Line Washer
79W	In-line Washer
80W	In-line Washer
81W	In-Line Washer
114W	In-line Washer
516W	In-line Washer

<b>Insignificant Emission Unit Number</b>	<b>Direct-fired Diesel Combustion (ZEU4)</b>
1TH	One (1) Torpedo Heater (0.22 MMBtu/hr)

<b>Insignificant Emission Unit Number</b>	<b>Indoor Vented Emissions</b>
F-1	Machining Centers
F-2	Aerosol Touch-up Painting
F-3	Rust Preventative Application on 571 Trim Line
F-4	IPA Cleaning Wipe
F-5	Three (3) Portable Gas Generators
F-6	Test Cell Coolant Collection System
F-7	Rust Preventative Dip Tanks

## II. Plant-Wide Conditions

Facility Name: John Deere Engine Works  
Permit Number: 04-TV-018R3-M001

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

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### Permit Duration

The term of this permit is: Five (5) years  
Commencing on: 04/27/2022  
Ending on: 04/26/2027

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

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### 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<sub>2</sub>): 500 parts per million by volume  
Authority for Requirement: 567 IAC 23.3(3)"e"

#### Particulate Matter:

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

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).  
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable

precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

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

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

#### Natural Gas Combustion at the Facility (Plant-wide limit)<sup>(1)</sup>

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit: 13.2 tons/yr

Authority for Requirement: Iowa DNR Construction Permits of applicable emission units

<sup>(1)</sup> Emission limit is total combined emissions for all natural gas combustion at John Deere Product Engineering Center (Plant Number 07-01-087) and John Deere Engine Works (Plant Number 07-01-091).

#### Plant-Wide Operational Limits & Requirements

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

1. 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].

#### 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: Iowa DNR Construction Permits of applicable emission units

**40 CFR 60 Subpart A Requirements**

This facility is an affected source and these *General Provisions* apply to the facility. The affected units are EP B2, B3, and B4. See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart A  
567 IAC 23.1(2)

**40 CFR 60 Subpart Dc Requirements**

This facility is subject to *Standards of Performance for Small Industrial – Commercial - Institutional Steam Generating Units*. The affected units are B2, B3, and B4.

See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart Dc  
567 IAC 23.1(2) "lll"

**40 CFR Part 60 NSPS Subpart IIII Requirements**

The emergency generator, EP 110 and fire pump diesel engine, EP-108 are subject to the *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

See Appendix for a link to the Standard.

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

**40 CFR Part 63 Subpart CCCCCC Requirements**

EP 96 is subject to the *Gasoline Dispensing Facilities* requirements. See Appendix for a link to the Standard.

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

**40 CFR 63 Subpart ZZZZ Requirements**

The emergency engines are subject to 40 CFR 63 Subpart ZZZZ - *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)*.

See Appendix for a link to the Standard.

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

### III. Emission Point-Specific Conditions

Facility Name: John Deere Engine Works  
 Permit Number: 04-TV-018R3-M001

#### Emission Point ID Numbers: Paint Booth Robot Zone 1 & Zone 2

##### Associated Equipment

**Table 1**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
PBRZ1	PBRZ1	Paint Booth - Robotic Zone 1	CE PBRZ1 Three Stages Dry Filters	Paints & Solvents	2 robotic guns at 16.0 gal/hr, each*	08-A-472-S3
PBRZ2	PBRZ2	Paint Booth - Robotic Zone 2	CE PBRZ2 Three Stages Dry Filters	Paints & Solvents		08-A-473-S3

\* A total of two guns in the entire robot zone. Robot zone is shared as both the PBRZ1 and PBRZ2 together.

#### Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit: 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits: See Table 1  
 567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit: 0.90 lb/hr

Authority for Requirement: Iowa DNR Construction Permits: See Table 1

Pollutant: Particulate Matter (PM)

Emission Limit: 0.90 lb/hr, 0.01 gr/scf

Authority for Requirement: Iowa DNR Construction Permits: See Table 1  
 567 IAC 23.4(13)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit: 53.94 tons/yr

Authority for Requirement: Iowa DNR Construction Permits: See Table 1

Pollutant: Total Hazardous Air Pollutants (Total HAP)

Emission Limit: 2.54 tons/yr

Authority for Requirement: Iowa DNR Construction Permits: See Table 1

### **Operational Limits & Requirements**

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

#### **Operating Limits**

Operating limits for this emission unit shall be:

- A. Maintain dry filters according to manufacturer specifications and maintenance schedule.

#### **Reporting & 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. These records shall show the following:

- A. Record daily, the quantity of all VOC/HAP containing materials used in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in gallons.
- B. Record the VOC content of all VOC/HAP containing materials used in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in pounds per gallon.
- C. Record the Single HAP content of all VOC/HAP containing materials in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in pounds per gallon.
- D. Record the Total HAP content of all VOC/HAP containing materials in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in pounds per gallon.
- E. Calculate VOC emissions in tons from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 on a monthly basis and keep rolling 12-month totals. Records for total VOC emissions shall be kept on monthly basis until time that VOC emissions exceed 43.15 Tons per year. At this point owner or operator shall immediately begin keeping a 365-day rolling total of the quantity of VOC emission emitted from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in tons. Calculation requirements will revert back to a monthly basis if the 12-month rolling total is returned below 43.15 Tons per year for VOC emissions.
- F. Calculate Total HAP emissions in tons from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 on a monthly basis and keep rolling 12-month totals. Records for Total HAP emissions shall be kept on monthly basis until time that Total HAP emissions

exceed 2.03 Tons per year. At this point owner or operator shall immediately begin keeping a 365-day rolling total of the quantity of Total HAP emissions emitted from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in tons. Calculation requirements will revert back to a monthly basis if the 12-month rolling total is returned below 2.03 Tons per year for Total HAP emissions.

G. Retain Safety Data Sheets (SDS) or other supplier material data sheets (i.e. Technical Data Sheets, Environmental Data Sheets, etc.) for VOC/HAP containing materials.

H. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of dry filters.

Authority for Requirement: Iowa DNR Construction Permits 08-A-472-S3 & 08-A-473-S3

**Emission Point Characteristics**

*The emission points shall conform to the specifications listed below.*

			Stack Characteristics				
EP	EU	Construction Permit #	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flowrate (scfm)
PBRZ1	PBRZ1	08-A-472-S3	35	Vertical, Unobstructed	37	70	15,200
PBRZ2	PBRZ2	08-A-473-S3	35	Vertical, Unobstructed	37	70	15,200

Authority for Requirement: Iowa DNR Construction Permits 08-A-472-S3 & 08-A-473-S3

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

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

## Agency Robot Paint Booth Operational & Maintenance Plan

1. Continuous
  - The paint booth system will be controlled by an electronic system which monitors the pressure drop across the filters and the power to the fan. The system will initiate a visual and audio alarm when the pressure drop across the filters is outside of the manufacturer's recommended range. The system will also send an alarm when the power required for the fan exceeds the normal level.
2. Record Keeping and Reporting
  - Maintenance, filter change records and inspection records due to the action taken when the alarm systems are activated will be kept for five years and available upon request.
3. Quality Control
  - The filter equipment will be operated and maintained according to the manufacturers' recommendations.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Numbers: Paint Booth Manual Zone 1 & Zone 2

### Associated Equipment

**Table 2**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
PBMZ1	PBMZ1	Paint Booth Manual Zone 1	Dry Filters (Three stages; CE PBMZ1)	Paints & Solvents	One gun at 19.0 gal/hr*	08-A-474-S3
PBMZ2	PBMZ2	Paint Booth Manual Zone 2	Dry Filters (Three stages; CE PBMZ2)	Paints & Solvents		08-A-475-S3

\* One gun total in the entire manual zone. Manual zone is shared as both the PBMZ1 and PBMZ2 together.

### Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit: 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits: See Table 2  
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit: 0.64 lb/hr

Authority for Requirement: Iowa DNR Construction Permits: See Table 2

Pollutant: Particulate Matter (PM)

Emission Limit: 0.64 lb/hr, 0.01 gr/scf

Authority for Requirement: Iowa DNR Construction Permits: See Table 2  
567 IAC 23.4(13)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit: 53.94 tons/yr

Authority for Requirement: Iowa DNR Construction Permits: See Table 2

Pollutant: Total Hazardous Air Pollutants (Total HAP)

Emission Limit: 2.54 tons/yr

Authority for Requirement: Iowa DNR Construction Permits: See Table 2

## **Operational Limits & Requirements**

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

### **Operating Limits**

Operating limits for this emission unit shall be:

- A. Maintain dry filters according to manufacturer specifications and maintenance schedule.

### **Reporting & 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. These records shall show the following:

- A. Record daily, the quantity of all VOC/HAP containing materials used in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in gallons.
- B. Record the VOC content of all VOC/HAP containing materials used in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in pounds per gallon.
- C. Record the Single HAP content of all VOC/HAP containing materials in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in pounds per gallon.
- D. Record the Total HAP content of all VOC/HAP containing materials in paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in pounds per gallon.
- E. Calculate VOC emissions in tons from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 on a monthly basis and keep rolling 12-month totals. Records for total VOC emissions shall be kept on monthly basis until time that VOC emissions exceed 43.15 Tons per year. At this point owner or operator shall immediately begin keeping a 365-day rolling total of the quantity of VOC emission emitted from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in tons. Calculation requirements will revert back to a monthly basis if the 12-month rolling total is returned below 43.15 Tons per year for VOC emissions.
- F. Calculate Total HAP emissions in tons from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 on a monthly basis and keep rolling 12-month totals. Records for Total HAP emissions shall be kept on monthly basis until time that Total HAP emissions exceed 2.03 Tons per year. At this point owner or operator shall immediately begin keeping a 365-day rolling total of the quantity of Total HAP emissions emitted from the paint booths PBRZ1, PBRZ2, PBMZ1, and PBMZ2 in tons. Calculation requirements will revert back to a monthly basis if the 12-month rolling total is returned below 2.03 Tons per year for Total HAP emissions.

G. Retain Safety Data Sheets (SDS) or other supplier data sheets (i.e. Technical Data Sheets, Environmental Data Sheets, etc.) for VOC/HAP containing materials.

H. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of dry filters.

Authority for Requirement: Iowa DNR Construction Permits 08-A-474-S3 & 08-A-475-S3

**Emission Point Characteristics**

*The emission points shall conform to the specifications listed below.*

			Stack Characteristics				
EP	EU	Construction Permit #	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flowrate (scfm)
PBMZ1	PBMZ1	08-A-474-S3	35	Vertical, Unobstructed	37	70	17,600
PBMZ2	PBMZ2	08-A-475-S3	35	Vertical, Unobstructed	37	70	17,600

Authority for Requirement: Iowa DNR Construction Permits 08-A-474-S3 & 08-A-475-S3

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

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

## **Agency Manual Paint Booth Operational & Maintenance Plan**

1. Continuous
  - The paint booth system will be controlled by an electronic system which monitors the pressure drop across the filters and the power to the fan. The system will initiate a visual and audio alarm when the pressure drop across the filters is outside of the manufacturer's recommended range. The system will also send an alarm when the power required for the fan exceeds the normal level.
2. Record Keeping and Reporting
  - Maintenance, filter change records and inspection records due to the action taken when the alarm systems are activated will be kept for five years and available upon request.
3. Quality Control
  - The filter equipment will be operated and maintained according to the manufacturers' recommendations.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Numbers: Flash Off Tunnel and Final Cure Oven

### Associated Equipment

**Table 3**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
32	32	Flash Off Tunnel	None	Paints & Solvents Natural Gas	2 MMBtu/hr	10-A-330-S1
33	33	Final Cure Oven	None	Paints & Solvents Natural Gas	2 MMBtu/hr	10-A-331-S1

### Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit: 40% <sup>(1)</sup>

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

Iowa DNR Construction Permits: See Table 3

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

Pollutant: Particulate Matter (PM)

Emission Limit: 0.1 gr/dscf

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

Iowa DNR Construction Permits: See Table 3

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

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

Iowa DNR Construction Permits: See Table 3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit: All of the VOC emissions from these emission points are accounted for in the permits for EPs PBRZ1, PBRZ2, PBMZ1 and PBMZ2

Authority for Requirement: Iowa DNR Construction Permits: See Table 3

**Operational Limits & Requirements**

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

**Operating Limits**

Operating limits for this emission unit shall be:

This unit shall fire on natural gas only.

Authority for Requirement: Iowa DNR Construction Permits 10-A-330-S1 & 10-A-331-S1

**Emission Point Characteristics**

*The emission points shall conform to the specifications listed below.*

EP	EU	Construction Permit #	Stack Characteristics				
			Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flowrate (scfm)
32	32	10-A-330-S1	36	Vertical, Unobstructed	12	125	1,100
33	33	10-A-331-S1	36	Vertical, Unobstructed	25	210	7,000

Authority for Requirement: Iowa DNR Construction Permits 10-A-330-S1 & 10-A-331-S1

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

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP RPB**

### Associated Equipment

Associated Emission Unit ID Number: EU RPB  
Associated Control Equipment ID Number: CE-RPB  
Associated Control Equipment Description: Dry Filters, Two Stages

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Emission Unit vented through this Emission Point: EU RPB  
Emission Unit Description: Rust Prevention Booth  
Raw Material/Fuel: Rust Preventative  
Maximum Capacity: Two guns; each rated at 18.6 gallon per hour

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit: 40% <sup>(1)</sup>

Authority for Requirement: 567 IAC 23.3(2)"d"  
Iowa DNR Construction Permit 03-A-210-S4

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit: 0.01 gr/scf

Authority for Requirement: 567 IAC 23.4(13)  
Iowa DNR Construction Permit 03-A-210-S4

#### **Operational Limits & Requirements**

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

#### Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall only use one of the permitted spray guns at any specific time.
- B. The maximum amount of surface coating materials used in this booth (EU-RPB) shall not exceed 4969 gallons per twelve-month rolling period.
- C. The maximum VOC content of any surface coating materials used in this booth (EU-RPB) shall not exceed 6.6 pounds VOC per gallon.
- D. The surface coating materials used in this booth (EU-RPB) shall not contain any HAPs.

- E. The facility shall not use any surface coating materials that contain target HAP, as defined in Subpart HHHHHH, 40 CFR §63.11180. Target HAP are compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).

**Reporting & 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. These records shall show the following:

- A. The permit holder, owner or operator of the facility shall calculate and record the monthly total and the 12-month rolling total amount of surface coating material used in the affected emission unit (EU-RPB), in gallons.
- B. The permit holder, owner or operator of the facility shall record the VOC content of any surface coating material used in the affected emission unit (EU-RPB), in pounds per gallon.
- C. 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 emission unit, which clearly indicates the VOC and HAP content of that material.

Authority for Requirement: Iowa DNR Construction Permits 03-A-210-S4

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (feet, from ground): 35

Stack Opening, (inches, dia.): 25

Stack Exhaust Flow Rate (scfm): 7,500

Stack Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-210-S4

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

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required? Yes  No**

**Facility Maintained Operation & Maintenance Plan Required? Yes  No**

**Compliance Assurance Monitoring (CAM) Plan Required? Yes  No**

**Agency Rust Prevention Booth Operational & Maintenance Plan**

1. Weekly

- Inspect the Rust Prevention booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.
- Weekly inspections of the Rust Preventative Booth are not required to be completed in any calendar week where the booth did not operate.

2. Record Keeping and Reporting

- Maintenance and inspection records will be kept for five years and available upon request.
- Records will be maintained identifying any calendar weeks where the booth was not operated.

3. Quality Control

- The filter equipment will be operated and maintained according to the manufacturers' recommendations.

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: B2, B3 and B4

### Associated Equipment

**Table Boiler-1**

EP ID	EU ID	Emission Unit Description	Maximum Design Capacity	Control Equipment Description	Permit Number
B2	B2	Boiler #2	11.8 MMBTU/hr	FGR (CE B2)	20-A-008
B3	B3	Boiler #3	11.8 MMBTU/hr	FGR (CE B3)	18-A-289-S1
B4	B4	Boiler #4	12.4 MMBTU/hr	FGR (CE B4)	14-A-483-S3

(1) FGR = Flue Gas Recirculation

Raw Material/Fuel: Natural Gas

### Applicable Requirements

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

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

Emission Point B2, B3 and B4 (per emission point)

Pollutant: Opacity

Emission Limit: 40% <sup>(1)</sup>

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

Iowa DNR Construction Permit Table Boiler-1

<sup>(1)</sup> An exceedance of the indicator opacity of "No Visible Emissions (No VE)" 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).

Emission Point B3 and B4 (per emission point)

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit: 0.09 lb/hr

Authority for Requirement: Iowa DNR Construction Permit Table Boiler-1

Emission Point B2, B3 and B4 (per emission point)

Pollutant: Particulate Matter (PM)

Emission Limit: 0.6 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)b(2)

Iowa DNR Construction Permit Table Boiler-1

Emission Point B2, B3 and B4 (per emission point)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

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

Iowa DNR Construction Permit Table Boiler-1

Emission Point B3 and B4 (per emission point)  
Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit: 0.51 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit Table Boiler-1

Emission Point B3 and B4 (per emission point)  
Pollutant: Carbon Monoxide (CO)  
Emission Limit: 1.03 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit Table Boiler-1

See Plant-wide Limits section for the Facility-Wide Natural Gas Combustion Limit

**New Source Performance Standards (NSPS) and  
National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is subject to Subparts A (*General Provisions*; 40 CFR §60.1 – 40 CFR §60.19) and Dc (*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*; 40 CFR §60.40c – 40 CFR §60.48c) of the New Source Performance Standards (NSPS).

Authority for Requirements: 40 CFR 60 Subpart Dc  
567 IAC 23.1(2) "III"  
Iowa DNR Construction Permit Table Boiler-1

**Operational Limits & Requirements**

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

**Operating Requirements and Associated Recordkeeping**

All records as required by these permits 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 requirements for these permits shall be:

- A. These emission units (EUs B2, B3, and B4) shall combust only natural gas.
- B. 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:
  - (1) record and maintain records of the amount of each fuel combusted during each calendar month [See 40 CFR §60.40c(g)(2)] or
  - (2) 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: Iowa DNR Construction Permit Table Boiler-1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

<b>EP ID</b>	<b>Stack Height (Feet)</b>	<b>Discharge Style</b>	<b>Stack Opening (inches)</b>	<b>Stack Temperature (°F)</b>	<b>Exhaust Flowrate (SCFM)</b>
B2	58.5	Unobstructed vertical	30	275	2,400
B3	58.5	Unobstructed vertical	30	275	2,400
B4	53	Unobstructed vertical	27	275	2,400

Authority for Requirement: Iowa DNR Construction Permit Table Boiler-1

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

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required? Yes  No**

**Facility Maintained Operation & Maintenance Plan Required? Yes  No**

**Compliance Assurance Monitoring (CAM) Plan Required? Yes  No**

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: 96**

### Associated Equipment

Associated Emission Unit ID Number: 96

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Emission Unit vented through this Emission Point: 96

Emission Unit Description: Gasoline Fuel Island

Raw Material/Fuel: Gasoline

Rated Capacity: 275 Gallons

### **Applicable Requirements**

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

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

No applicable requirements at this time.

#### **Operational Limits & Requirements**

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

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is subject to Subparts A (*General Provisions*; 40 CFR §60.1 – 40 CFR §60.19) and CCCCCC (*Gasoline Dispensing Facilities* 40 CFR §63.11110 – 40 CFR §63.11132).

#### **Operating 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 Requirements: 40 CFR Part 63 Subpart CCCCCC  
567 IAC 23.1(4)"ec"

Reporting & Recordkeeping

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 Requirements: 40 CFR 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 22.108(3)

## Emission Point ID Numbers: 100TC3 through 100TC16

### Associated Equipment

**Table Engine Test Cells-1**

EP ID #	EU ID #	Emission Unit Description <sup>(1)</sup>	Engine MRC <sup>(2)</sup>	Dyno MRC <sup>(3)</sup>	Control Equipment Description (CE ID) <sup>(4)</sup>	Permit #
100TC3	100TC3	Engine Test Cell #3	13.6 L & 35 gal/hr	1000 bhp	None	97-A-161-S7
100TC7	100TC7	Engine Test Cell #7				97-A-165-S7
100TC8	100TC8	Engine Test Cell #8				97-A-166-S7
100TC9	100TC9	Engine Test Cell #9				97-A-167-S7
100TC10	100TC10	Engine Test Cell #10				97-A-168-S7
100TC11	100TC11	Engine Test Cell #11				97-A-169-S7
100TC12	100TC12	Engine Test Cell #12				97-A-170-S7
100TC4	100TC4	Engine Test Cell #4	18 L & 55 gal/hr	1250 bhp		97-A-162-S7
100TC15	100TC15	Engine Test Cell #15				09-A-511-S4
100TC16	100TC16	Engine Test Cell #16				09-A-512-S4

### Applicable Requirements

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

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

#### **Emission Point Specific Emission Limits (13.6 L Maximum Displacement Test Cells)**

Pollutant: Opacity

Emission Limit: 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(13.6L/35 gal/hr)  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 15% 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<sub>10</sub>)  
Emission Limit: 0.89 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(13.6L/35 gal/hr)

Pollutant: Particulate Matter (PM)  
Emission Limit: 0.1 gr/scf  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(13.6L/35 gal/hr)  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) (Diesel)  
Emission Limit: 2.5 lb/MMBtu heat input  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(13.6L/35 gal/hr)  
567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit: 15.60 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(13.6L/35 gal/hr)

Pollutant: Carbon Monoxides (CO)  
Emission Limit: 5.75 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(13.6L/35 gal/hr)

### **Emission Point Specific Emission Limits (18L Maximum Displacement Test Cells)**

Pollutant: Opacity  
Emission Limit: 40% <sup>(1)</sup>  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(18L/55 gal/hr)  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 15% 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<sub>10</sub>)  
Emission Limit: 0.89 lb/hr  
Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
(18L/55 gal/hr)

Pollutant: Particulate Matter (PM)  
 Emission Limit: 0.1 gr/scf  
 Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
 (18L/55 gal/hr)  
 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) (Diesel)  
 Emission Limit: 2.5 lb/MMBtu heat input  
 Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
 (18L/55 gal/hr)  
 567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
 Emission Limit: 16.43 lb/hr  
 Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
 (18L/55 gal/hr)

Pollutant: Carbon Monoxides (CO)  
 Emission Limit: 7.19 lb/hr  
 Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1  
 (18L/55 gal/hr)

Bubble Limits

<b>Group</b>	<b>Pollutant</b>	<b>lb/hr</b>	<b>tons/yr<sup>(1)</sup></b>	<b>Reference/Basis</b>
Facility Test Cells <sup>(2)</sup>	Nitrogen Oxides (NO <sub>x</sub> )	NA	222.8 <sup>(3)</sup>	Construction Permits listed in Table Engine Test Cells-1

<sup>(1)</sup> The emission limit is based on a twelve (12) month rolling total.

<sup>(2)</sup> "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).

<sup>(3)</sup> 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).

## **Operating Requirements and Associated Recordkeeping**

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

All records as required by these permits 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 requirements for these permits shall be:

- A. Each engine tested in the emission units listed in Table Engine Test Cells-1 is limited to firing on diesel fuel.
- B. The sulfur content of the diesel fuel used in each engine tested in the emission units listed in Table Engine Test Cells-1 shall not exceed 15 parts per million (ppm), by weight.
- C. The permittee shall keep records on the sulfur content of diesel fuel. The following methods will certify that the diesel fuel consumed meets the standard listed in Construction Permit Condition 5.B.
  - (1) The sulfur content of the fuel consumed shall be verified by records indicating the fuel supplier meets a standard (i.e., ASTM D975) that ensures the sulfur content of the fuel complies with the permitted level and provides certification with the fuel delivery that the fuel complies with the standard. The facility is required to maintain a copy of the fuel standard used for certification; or,
  - (2) Certification by an independent testing facility or by the fuel vendor that the sulfur content meets the permitted limits.
- D. 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 (12-month rolling total). The owner or operator shall record the following:
  - (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) for each month of operation.
  - (2) The twelve (12) month rolling 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) for each month of operation.
- E. 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 5 of Condition 2 (Compliance Demonstration) of the construction permit for determining compliance with the CO emission factor.
- F. The engines tested shall meet a particulate (filterable and condensable combined) emission factor of 0.013 lb/gal.

- G. The owner or operator shall record the following information to demonstrate compliance with the annual NOx limit found in Construction Permit Condition 1.C. (222.8 tons/yr):
- (1) The combined total monthly amount of NOx recorded using sensor data from the test cells 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 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).
- H. The maximum instantaneous power output from the 18L test cells [Engine Test Cell #4 (EU 100TC4), Engine Test Cell #15 (EU 100TC15), and Engine Test Cell #16 (EU 100TC16)] shall not exceed 833 hp (622 kW) when using 18L engines designated as having a low regulated country (LRC) configuration.
- (1) The owner or operator shall continuously monitor the brake horsepower when the 18L test cells [Engine Test Cell #4 (EU 100TC4), Engine Test Cell #15 (EU 100TC15), and Engine Test Cell #16 (EU 100TC16)] are using 18L engines designated as having a low regulated country (LRC) configuration.
  - (2) When using 18L engines designated as having a low regulated country (LRC) configuration, the owner or operator shall utilize a monitor that continuously tracks the instantaneous brake horsepower and records the instantaneous maximum brake horsepower for each test cycle.
  - (3) The owner or operator shall record the date and time when an 18L LRC engine is tested in the 18L test cells [Engine Test Cell #4 (EU 100TC4), Engine Test Cell #15 (EU 100TC15), and Engine Test Cell #16 (EU 100TC16)].

Authority for Requirement: Iowa DNR Construction Permits in Table Engine Test Cells-1

**Emission Point Characteristics**

*The emission points shall conform to the specifications listed below.*

**Table Engine Test Cells-2**

<b>EP ID<sup>(1)</sup></b>	<b>Stack Height, Feet</b>	<b>Discharge Style</b>	<b>Stack Opening, inches</b>	<b>Stack Temperature, °F</b>	<b>Exhaust Flowrate, SCFM</b>
100TC3 100TC4 100TC7 100TC8 100TC9 100TC10 100TC11 100TC12 100TC15 100TC16	41.5	Vertical Unobstructed	10	930	1930

Authority for Requirement: Iowa DNR Construction Permits Referenced in Table Engine Test Cells-1

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

## **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – Carbon Monoxide(CO)

Stack Test to be completed every three (3) years<sup>(1)</sup>, by - May 21, 2024

Test Method - 40 CFR 60, Appendix A, Method 10

Authority for Requirement - Iowa DNR Construction Permits in Table Engine Test Cells-1

<sup>(1)</sup> The facility shall conduct the following representative PSD minor emission factor verification 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 lb/gal emission factor in Condition E of the test cell operating requirements and associated recordkeeping:

- (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.
- The runs would be averaged together to be compared against the CO emission factor in Condition 5.E. to determine compliance with the synthetic minor limit.
- The facility shall conduct an initial test and once every three (3) years. Subsequent testing shall occur no later than 36 months from the previous compliance test. The next test is due by May 21, 2024.

## Continuous Emission Monitoring

The following continuous monitoring systems requirements apply to each emission point and the associated emission unit (test cell):

A. The following monitoring systems are required:

(1) NO<sub>x</sub>:

The owner or operator shall install, maintain, and operate a NO<sub>x</sub> monitoring system and record the output of the system, for measuring NO<sub>x</sub> emissions.

The system installed shall either be calibrated by the manufacturer or by the owner or operator. If the system installed is calibrated by the manufacturer, the owner or operator shall maintain a copy of calibration certification.

The NO<sub>x</sub> 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.

(2) 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.

B. The owner or operator shall only use pre-certified NO<sub>x</sub> 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:

- 0 – 100 ppm: +/- 10 ppm
- 100 – 500 ppm: +/- 10%

C. The monitors required in Condition A. of this section for NO<sub>x</sub> 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.

D. The following data requirements shall apply to all monitors in this permit:

- (1) The monitors required by this permit 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.
- (2) The 1-hour average NO<sub>x</sub> 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.

- (3) For each hour of missing emission data (NO<sub>x</sub>) during the testing of an engine, the owner or operator shall substitute data by:
- (i) Substituting the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
  - (ii) If the hour before and/or the hour after was on a different sized engine the owner or operator shall use the applicable lb/hr allowable NO<sub>x</sub> emission limit listed in the emissions limits section for the specified test cell.
- (4) Testing of a different engine shall not begin in a test cell if the sensor is not operating correctly.

Authority for Requirement: Iowa DNR Construction Permits Referenced in Table Engine Test Cells-1

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: 104**

### Associated Equipment

Associated Emission Unit ID Number: 104

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Emission Unit vented through this Emission Point: 104

Emission Unit Description: Fire Pump Diesel Engine (West)

Raw Material/Fuel: Diesel

Rated Capacity: 170 bhp

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40 %

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<sub>2</sub>)

Emission Limit: 2.5 lb/MMBtu heat input

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

#### **Operational Limits & Requirements**

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

#### NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

According to 40 CFR 63.6590(a)(1)(iii) this compression ignition emergency engine, located at an area source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

#### Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of Subpart ZZZZ that are applicable by May 3, 2013.

#### Fuel Requirements

No requirements except (beginning January 1, 2015) if you own or operate an existing emergency compression ignited stationary engine with a site rating of more than 100 bhp and a

displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(b).

#### Operation and Maintenance Requirements 40 CFR 63.6603, 63.6625, 63.6640 and Tables 2d and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

#### Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing, emergency demand response and periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing.

#### Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2d to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5)
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2d. (See Footnote 2 of Table 2d for more information.)
3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii) , you must submit an annual report. (See 40 CFR 63.6650(h) for additional information.)

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

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)

Reporting & Record keeping:

*All records as required by these permits shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:*

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 108

### Associated Equipment

Associated Emission Unit ID Number: 108

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Emission Unit vented through this Emission Point: 108  
Emission Unit Description: Fire Pump Diesel Engine (East)  
Raw Material/Fuel: Diesel  
Rated Capacity: 265 bhp

### Applicable Requirements

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

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

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

Pollutant: Non-Methane Hydrocarbon (NMHC) + Nitrogen Oxides (NOx)  
Emission Limit(s): 7.8 g /HP-hr  
Authority for Requirement: 40 CFR Part 60, Subpart III  
567 IAC 23.1(2)"yyy"

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

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.40 g /HP-hr  
Authority for Requirement: 40 CFR Part 60, Subpart III  
567 IAC 23.1(2)"yyy"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit: 2.5 lb/MMBtu heat input  
Authority for Requirement: 567 IAC 23.3(3)

## **Operational Limits & Requirements**

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

### **NESHAP:**

The emergency engine is subject to 40 CFR 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 (or 40 CFR part 60 subpart JJJJ for spark 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"

## **NSPS Subpart IIII Requirements**

### **Fuel Requirements:**

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

### **Compliance Requirements:**

1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
  - a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
  - b) Changing only those emission-related settings that are permitted by the manufacturer; and
  - c) Meeting the requirements of 40 CFR 89, 94 and/or 1068, as they apply to you.You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).
2. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days

prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
100 ≤ HP ≤ 500	Within 1 year of engine startup, or non-permitted action <sup>(1)</sup>	Not required

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

**Operating and Recordkeeping Requirements**

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 60.4209(a)).
2. There is no time limit on use for emergency situations. 40 CFR 60.4211(f)(1).
3. The engine may be operated for the purpose of maintenance checks and readiness testing and deviation of voltage or frequency for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or non-emergency demand response or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

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

**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)

**Reporting & Record keeping:**

*All records as required by these permits shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:*

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: 110

### Associated Equipment

Associated Emission Unit ID Number: 110

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Emission Unit vented through this Emission Point: 110

Emission Unit Description: Emergency Generator

Raw Material/Fuel: Diesel

Rated Capacity: 755 bhp

### Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit: 40%<sup>(1)</sup>

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

567 IAC 23.1(2)"yyy"

Iowa DNR Construction Permit: 12-A-573-S1

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit: 0.74 lb/hr

Authority for Requirement: Iowa DNR Construction Permit: 12-A-573-S1

Pollutant: Particulate Matter (PM)

Emission Limit: 0.74 lb/hr

Authority for Requirement: 40 CFR Part 60, Subpart III

567 IAC 23.1(2)"yyy"

Iowa DNR Construction Permit: 12-A-573-S1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 0.01 lb/hr

Authority for Requirement: 40 CFR Part 60, Subpart III

567 IAC 23.1(2)"yyy"

Iowa DNR Construction Permit: 12-A-573-S1

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)

Emission Limit(s): 11.71 lb/hr

Authority for Requirement: 40 CFR Part 60, Subpart III

567 IAC 23.1(2)"yyy"

Iowa DNR Construction Permit: 12-A-573-S1

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 4.48 lb/hr

Authority for Requirement: 40 CFR Part 60, Subpart III

567 IAC 23.1(2)"yyy"

Iowa DNR Construction Permit: 12-A-573-S1

### **Operational Limits & Requirements**

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

### **NSPS and NESHAP Applicability**

A. This engine is subject to 40 CFR Part 60 NSPS Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (IAC 23.1(2)"yyy"). The engine is an emergency stationary internal combustion engine that is not a fire pump engine.

- i. 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:

<b>Pollutant</b>	<b>Emission Standard</b>	<b>Basis</b>
Particulate Matter (PM)	0.20 grams/kW-hr	§1039 Appendix I Table 2
NMHC <sup>1</sup> + NO <sub>x</sub>	6.4 grams/kW-hr	§1039 Appendix I Table 2
Carbon Monoxide (CO)	3.5 grams/kW-hr	§1039 Appendix I Table 2

<sup>1</sup> Non-methane hydrocarbon

- ii. 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).

B. For information only: This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part

63, Subpart ZZZZ].

Authority for Requirement: 40 CFR Part 60, Subpart IIII  
567 IAC 23.1(2)"yyy"  
Iowa DNR Construction Permit: 12-A-573-S1

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 of HAP emissions, is a new stationary RICE if construction was commenced on or after June 12, 2006.

According to 40 CFR 63.6590(c)(1), a new or reconstructed 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 (or 40 CFR part 60 subpart JJJJ for spark 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"

### **Operating Requirements with Associated Monitoring and Recordkeeping**

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

- A. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.
- B.
  - i. 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 provided that the annual hourly limit established in Condition 5.A. is not exceeded. 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.
  - ii. 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.
- C. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.
- D. The owner or operator shall maintain the following monthly records:
  - i. the number of hours that the engine operated for maintenance checks and readiness testing;

- ii. the number of hours that the engine operated for allowed non-emergency operations;
  - iii. the total number of hours that the engine operated and
  - iv. the rolling 12-month total amount of the number of hours that the engine operated,
- E. The owner or operator shall maintain the following annual records:
- i. the number of hours that the engine operated for maintenance checks and readiness testing; and
  - ii. the number of hours that the engine operated for allowed non-emergency operations.
  - iii. the total number of hours that the engine operated for maintenance checks, readiness testing, and allowed non-emergency operations.
- F. 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:

<b>Parameter</b>	<b>Limit</b>
Sulfur (S) content	15 ppm (0.0015%) by weight
Minimum cetane index <b>or</b> Maximum aromatic content	40 35% (by volume)

The owner or operator of the engine shall comply with these requirements listed above by one of the following methods:

- i. 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);
  - ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
  - iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.
- G. The engine must be installed and configured according to the manufacturer’s emission-related specifications, except as permitted in §60.4211(g).
- H. 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"  
 Iowa DNR Construction Permit: 12-A-573-S1

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (feet, from ground): 10.67

Stack Opening (inches): 8

Exhaust Flow Rate (acfm): 3,435

Exhaust Temperature (°F): 975

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-573-S1

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

**Monitoring Requirements**

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

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

### G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

### G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permitting & Standards Branch, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

### G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

#### **G4. Annual Compliance Certification**

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

#### **G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

#### **G6. Annual Fee**

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

#### **G7. Inspection of Premises, Records, Equipment, Methods and Discharges**

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

#### **G8. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

#### **G9. General Maintenance and Repair Duties**

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

#### **G10. Recordkeeping Requirements for Compliance Monitoring**

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
  - a. The date, place and time of sampling or measurements
  - b. The date the analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses; and
  - f. The operating conditions as existing at the time of sampling or measurement.
  - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

**G11. Evidence used in establishing that a violation has or is occurring.**

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

*1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:*

- a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
- b. Compliance test methods specified in 567 Chapter 25; or
- c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

*2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:*

- a. Any monitoring or testing methods provided in these rules; or
- b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

**G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

**G13. Hazardous Release**

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

**G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the

incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) ) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *567 IAC 22.108(16)*

#### **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

#### **G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations**

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

#### **G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification**

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
  - e. The changes comply with all applicable requirements.
  - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
    - i. A brief description of the change within the permitted facility,
    - ii. The date on which the change will occur,
    - iii. Any change in emission as a result of that change,
    - iv. The pollutants emitted subject to the emissions trade
    - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
    - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
    - vii. Any permit term or condition no longer applicable as a result of the change.
2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

**G18. Duty to Modify a Title V Permit**

1. Administrative Amendment.

- a. An administrative permit amendment is a permit revision that does any of the following:
  - i. Correct typographical errors
  - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
  - iii. Require more frequent monitoring or reporting by the permittee; or
  - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
- b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Title V Permit Modification.

- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
  - i. Do not violate any applicable requirement;
  - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
  - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
  - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
  - v. Are not modifications under any provision of Title I of the Act; and
  - vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
  - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
  - ii. The permittee's suggested draft permit;
  - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

### 3. Significant Title V Permit Modification.

Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.111-567 IAC 22.113

### **G19. Duty to Obtain Construction Permits**

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *567 IAC 22.1(1)*

### **G20. Asbestos**

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (*567 IAC 23.1(3)"a"*); training fires and controlled burning of a demolished building (*567 IAC 23.2*).

### **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

### **G22. Acid Rain (Title IV) Emissions Allowances**

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

### **G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
  4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
  5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
  - a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
  - b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
  - c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*
3. A permit shall be reopened and revised under any of the following circumstances:
  - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

- b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
- c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
- d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
- e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

#### **G25. Permit Shield**

*1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:*

- a. Such applicable requirements are included and are specifically identified in the permit; or
- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
- d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

#### **G26. Severability**

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to

other circumstances, and the remainder of this permit, shall not be affected by such finding. 567 IAC 22.108 (8)

**G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. 567 IAC 22.108 (9)"d"

**G28. Transferability**

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). 567 IAC 22.111 (1)"d"

**G29. Disclaimer**

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions.  
*567 IAC 22.3(3)"c"*

**G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification**

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
Wallace State Office Building  
502 E 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-9526

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

**G31. Prevention of Air Pollution Emergency Episodes**

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

*567 IAC 26.1(1)*

### **G32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

Iowa Compliance Officer  
Air Branch  
Enforcement and Compliance Assurance Division  
U.S. EPA Region 7  
11201 Renner Blvd.  
Lenexa, KS 66219  
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
Wallace State Office Building  
502 E 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-8200

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

#### **Field Office 1**

1101 Commercial Court, Suite 10  
Manchester, IA 52057  
(563) 927-2640

#### **Field Office 2**

2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

#### **Field Office 3**

1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

#### **Field Office 4**

1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

#### **Field Office 5**

Wallace State Office Building  
502 E 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-0268

#### **Field Office 6**

1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

#### **Polk County Public Works Dept.**

Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

#### **Linn County Public Health**

Air Quality Branch  
1020 6<sup>th</sup> Street SE  
Cedar Rapids, IA 52401  
(319) 892-6000

## V. APPENDIX

### 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](http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.d_0c)
- C. 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>
- D. 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>
- E. 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>