

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

Name of Permitted Facility: Iowa State University
Facility Location: 616 Beach Road, Ames, IA 50011
Air Quality Operating Permit Number: 04-TV-014R3
Expiration Date: April 21, 2024
Permit Renewal Application Deadline: October 21, 2023

EIQ Number: 92-6867
Facility File Number: 85-01-007

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.

For the Director of the Department of Natural Resources

Lori Hanson, Supervisor of Air Operating Permits Section

Date

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Abbreviations

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
CEcontrol equipment
CEM.....continuous emission monitor
EIQ.....emissions inventory questionnaire
EPemission point
EUemission unit
°Fdegrees Fahrenheit
gr./dscfgrains per dry standard cubic foot
IAC.....Iowa Administrative Code
DNR.....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS.....new source performance standard
ppmvparts per million by volume
lb./hr.....pounds per hour
lb./MMBtupounds per million British thermal units
SCC.....Source Classification Codes
scfm.....standard cubic feet per minute
SICStandard Industrial Classification
TPY.....tons per year
USEPA.....United States Environmental Protection Agency

Pollutants

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

I. Plant-Wide Conditions

Facility Name: Iowa State University
Permit Number: 04-TV-014R3

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

Permit Duration

The term of this permit is: Five (5) years
Commencing on: April 22, 2019
Ending on: April 21, 2024

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

Emission Limits

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

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO₂): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter:

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

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

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

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

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

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

Facility Name: Iowa State University

Permit Number: 04-TV-014R3

Facility Description: College, University, Pro School (SIC 8221); and
Electric & Other Services Combined (SIC 4931)**II. Facility Description and Equipment List - Campus****Equipment List**

| Emission Point Number | Emission Unit Number | Emission Unit Description | DNR Construction Permit Number |
|---|-----------------------------|---|---------------------------------------|
| Existing Spark Ignition Engines \geq 400 HP and < 500 HP | | | |
| EP-203 | EU-203 | Agronomy Hall Emergency Generator | 04-A-278 |
| EP-206 | EU-206 | National Laboratory for Agriculture and Environment Emergency Generator | 05-A-071-S1 |
| EP-208 | EU-208 | Sweeney Hall Emergency Generator | 04-A-281 |
| Existing Spark Ignition Engines > 500 HP | | | |
| EP-204 | EU-204 | Black Engineering Emergency Generator | 04-A-279-S1 |
| EP-205 | EU-205 | Molecular Biology Emergency Generator | 04-A-280 |
| Existing Compression Ignition Engines > 400 HP and < 500 HP | | | |
| EP-352 | EU-352 | LIDIF Emergency Generator | 98-A-1086-S1 |
| Existing Compression Ignition Engines > 500 HP | | | |
| EP-246 | EU-246 | ILRIF / Kildee Hall Emergency Generator | 98-A-458-S1 |
| EP-337 | EU-337 | Howe Hall Emergency Generator | 99-A-316 |
| EP-338 | EU-338 | Maple Hall Emergency Generator | 99-A-324 |
| New Compression Ignition Engines > 400 HP | | | |
| EP-508 | EU-508 | Vet Med 2 Emergency Generator | 07-A-1347-S2 |
| EP-540 | EU-540 | Vet Med Emergency Generator | 11-A-215 |
| EP-625 | EU-625 | ABE Emergency Generator | 13-A-459 |
| Permitted Boilers > 5 MMBtu/hr | | | |
| EP-210 | EU-210 | Wallace-Wilson Halls Boiler #1 | 04-A-282-S1 |
| | EU-211 | Wallace-Wilson Halls Boiler #2 | |
| EP-412 | EU-412 | Knapp-Storms Boiler #1 | 05-A-354-S1 |
| EP-413 | EU-413 | Knapp-Storms Boiler #2 | 05-A-355-S1 |
| EP-588 | EU-588 | Vet Med Boiler # 1 | 11-A-345 |
| EP-589 | EU-589 | Vet Med Boiler # 2 | 11-A-346 |
| EP-590 | EU-590 | Vet Med Boiler # 3 | 11-A-347 |
| EP-591 | EU-591 | Vet Med Boiler # 4 | 11-A-348 |
| Campus Miscellaneous Sources | | | |
| EP-200 | EU-200 | Vet Med Incinerator | 75-A-368-S3 |
| EP-220 | EU-220 | FP&M Paint Spray Booth | 04-A-286 |
| EP-235 | EU-235 | Meats Lab Linear Accelerator | 03-A-1061 |
| EP-236 | EU-236 | Meats Lab Smoke House #1 | 04-A-289-S1 |

| Emission Point Number | Emission Unit Number | Emission Unit Description | DNR Construction Permit Number |
|--|-----------------------------|---|---------------------------------------|
| EP-237 | EU-237 | Meats Lab Smoke House #2 | 04-A-290-S1 |
| EP-244 | EU-244 | ASC II Metal Atomizer | 04-A-291 |
| EP-506 | EU-506 | Vet Med Cooling Tower | 07-A-136 |
| EP-708 | EU-708 | North Chilled Water Plant Cooling Tower #6 | 17-A-216 |
| Existing Compression Ignition Engines < 400 HP | | | |
| EP-259 | EU-259 | Lied Emergency Generator | Exempt |
| EP-292 | EU-292 | Buchanan Hall Emergency Generator | Exempt |
| EP-297 | EU-297 | Helser Hall Emergency Generator | Exempt |
| EP-366 | EU-366 | Design College Emergency Generator | Exempt |
| EP-373 | EU-373 | Admin. Services Emergency Generator | Exempt |
| EP-411 | EU-411 | Eaton Hall Emergency Generator | Exempt |
| EP-419 | EU-419 | Carver Co-Lab Emergency Generator | Exempt |
| EP-465 | EU-465 | Pearson Emergency Generator | Exempt |
| EP-473 | EU-473 | Martin Hall Emergency Generator | Exempt |
| EP-510 | EU-510 | UV Emergency Generator | Exempt |
| EP-524 | EU-524 | Oak Hall (Formerly Larch) Emergency Generator | Exempt |
| EP-526 | EU-526 | ASC I Emergency Generator | Exempt |
| New Compression Ignition Engines < 400 bhp | | | |
| EP-532 | EU-532 | Hach Hall Emergency Generator | Exempt |
| EP-533 | EU-533 | Vet Med Pumphouse Emergency Generator | Exempt |
| EP-535 | EU-535 | Music Hall Emergency Generator | Exempt |
| EP-537 | EU-537 | Communication Building 2 Emergency Generator | Exempt |
| EP-539 | EU-539 | Hilton Coliseum 2 Emergency Generator | Exempt |
| EP-587 | EU-587 | Heady Hall Exterior Emergency Generator | Exempt |
| EP-621 | EU-621 | VMRI Bldg.35 Emergency Generator | Exempt |
| EP-622 | EU-622 | Curtiss Hall Student Services Emergency Generator | Exempt |
| EP-623 | EU-623 | Horticulture/Troxel Hall Emergency Generator | Exempt |
| EP-624 | EU-624 | Wallace Wilson Fire System Emergency Generator | Exempt |
| EP-630 | EU-630 | VMRI BSL3 Bldg 46 Emergency Generator #2 | Exempt |
| EP-631 | EU-631 | VMRI Freezer Bldg #62 Emergency Generator | Exempt |
| EP-649 | EU-649 | EHSSB Emergency Generator | Exempt |
| EP-657 | EU-657 | Forker Bldg Emergency Generator | Exempt |
| EP-689 | EU-689 | Geoffroy Hall Emergency Generator | Exempt |
| EP-709 | EU-709 | Bessey Addition Emergency Generator | Exempt |
| EP-711 | EU-711 | ATRB Emergency Generator | Exempt |
| Existing 4-Stroke-Rich Burn, Spark Ignition Engines < 400 HP | | | |
| EP-270 | EU-270 | Agronomy Greenhouse Emergency Generator | Exempt |
| EP-271 | EU-271 | Durham Emergency Generator | Exempt |
| EP-272 | EU-272 | Food Sciences Emergency Generator | Exempt |
| EP-273 | EU-273 | Gilman Hall Emergency Generator | Exempt |
| EP-277 | EU-277 | LeBaron Hall Emergency Generator | Exempt |
| EP-278 | EU-278 | Meats Lab. # 1 Emergency Generator | Exempt |
| EP-279 | EU-279 | Meats Lab. # 2 Emergency Generator | Exempt |
| EP-282 | EU-282 | Research Park Emergency Generator | Exempt |

| Emission Point Number | Emission Unit Number | Emission Unit Description | DNR Construction Permit Number |
|--|-----------------------------|---|---------------------------------------|
| EP-284 | EU-284 | Science 2 Emergency Generator | Exempt |
| EP-286 | EU-286 | Town Eng. Emergency Generator | Exempt |
| EP-287 | EU-287 | Vet Med Research Institute # 40 Emergency Generator | Exempt |
| EP-290 | EU-290 | Barton Hall Emergency Generator | Exempt |
| EP-291 | EU-291 | Birch-Welch-Roberts Emergency Generator | Exempt |
| EP-294 | EU-294 | Freeman Hall Emergency Generator | Exempt |
| EP-296 | EU-296 | Friley Hall South Emergency Generator | Exempt |
| EP-302 | EU-302 | Lyon Hall Emergency Generator | Exempt |
| EP-374 | EU-374 | Olsen Building Emergency Generator | Exempt |
| EP-395 | EU-395 | Linden Hall Emergency Generator | Exempt |
| EP-407 | EU-407 | Gilman Emergency Generator | Exempt |
| EP-410 | EU-410 | Olsen/Bergstrom Emergency Generator | Exempt |
| EP-433 | EU-433 | Gerdin Emergency Generator | Exempt |
| EP-472 | EU-472 | Reiman Gardens Emergency Generator | Exempt |
| EP-522 | EU-522 | Memorial Union Emergency Generator | Exempt |
| EP-523 | EU-523 | UDCC Emergency Generator | Exempt |
| EP-639 | EU-639 | Knapp Storms Dining Complex Emergency Generator | Exempt |
| New Spark Ignition Engines < 400 HP | | | |
| EP-536 | EU-536 | Vet Med Field Services Emergency Generator | Exempt |
| EP-647 | EU-647 | Ross Hall Emergency Generator | Exempt |
| EP-702 | EU-702 | Friley Hall North Emergency Generator | Exempt |
| 1.6 MMBtu/hr < Exempt Boilers < 10 MMBtu/hr | | | |
| EP-202 | EU-202 | Livestock Infectious Disease Isolation Facility Boiler #1 | Exempt |
| EP-321 | EU-321 | Vet Medical Research Institute #1 Boiler | Exempt |
| EP-378 | EU-378 | Livestock Infectious Disease Isolation Facility Boiler #3 | Exempt |
| | EU-379 | Livestock Infectious Disease Isolation Facility Boiler #2 | Exempt |
| | EU-392 | Livestock Infectious Disease Isolation Facility Boiler #4 | Exempt |
| EP-420 | EU-420 | Carver Co-Lab Boiler #1 | Exempt |
| | EU-421 | Carver Co-Lab Boiler #2 | Exempt |
| | EU-422 | Carver Co-Lab Boiler #3 | Exempt |
| | EU-423 | Carver Co-Lab Boiler #4 | Exempt |
| EP-504 | EU-504 | Carver Co-Lab Boiler #5 | Exempt |
| EP-598 | EU-598 | Olsen Boiler # 1 | Exempt |
| EP-599 | EU-599 | Olsen Boiler # 2 | Exempt |
| EP-602 | EU-602 | VMRI Bldg 40 Boiler # 1 | Exempt |
| EP-603 | EU-603 | VMRI Bldg 40 Boiler # 2 | Exempt |
| EP-628 | EU-628 | Applied Science Center I Boiler #1 | Exempt |
| EP-629 | EU-629 | Applied Science Center I Boiler #2 | Exempt |
| EP-637 | EU-637 | Bergstrom Boiler #1 | Exempt |
| EP-638 | EU-638 | Bergstrom Boiler #2 | Exempt |
| EP-691 | EU-691 | Geoffroy Hall Boiler #1 | Exempt |
| EP-692 | EU-692 | Geoffroy Hall Boiler #2 | Exempt |
| EP-693 | EU-693 | Geoffroy Hall Boiler #3 | Exempt |
| EP-694 | EU-694 | Geoffroy Hall Boiler #4 | Exempt |

| Emission Point Number | Emission Unit Number | Emission Unit Description | DNR Construction Permit Number |
|------------------------------|-----------------------------|----------------------------------|---------------------------------------|
| EP-716 | EU-716 | Lied Rec Center Boiler #1 | Exempt |
| EP-717 | EU-717 | Lied Rec Center Boiler #2 | Exempt |
| EP-718 | EU-718 | Lied Rec Center Boiler #3 | Exempt |
| EP-719 | EU-719 | Lied Rec Center Boiler #4 | Exempt |

Insignificant Activities Equipment List

| Insignificant Emission Unit Number | Insignificant Emission Unit Description |
|---|--|
| EU-221 | Hilton Coliseum Paint Booth |
| EU-227 | Black Engineering Paint Booth |
| EU-238 | Transportation Services Underground Storage Diesel Tank (10,000 gallon) |
| EU-239 ⁽¹⁾ | Transportation Services Underground Storage Gas Tank (20,000 gallons) (DNR Construction Permit Number 03-A-1060) |
| EU-324 | VMRI Bldg 29 Boiler (1.01 MMBtu/hr) |
| EU-327 | Extension IT (Haber Road) Boiler (0.25 MMBtu/hr) |
| EU-328 | ASB Boiler #1 (0.75 MMBtu/hr) |
| EU-329 | ASB Boiler #2 (0.75 MMBtu/hr) |
| EU-331 | Ruminant Nutrition Lab Boiler # 1 (0.52 MMBtu/hr) |
| EU-332 | Ruminant Nutrition Lab Boiler # 2 (0.52 MMBtu/hr) |
| EU-339 | Howe Hall Spray Booth |
| EU-363 | ASC Tank – AST – Diesel (>500 gallons) |
| EU-381 | Spray Booth Black Engineering |
| EU-383 | Design College Spray Room |
| EU-384 | Design College Glazing Spray Room |
| EU-403 | Armory Spray Room |
| EU-435 | Bergstrom Indoor Training Furnace (0.007 MMBtu/hr) |
| EU-436 | Jack Trice Stadium Above Ground Storage Gas Tank (500 gallons) |
| EU-437 | Jack Trice Stadium Above Ground Storage Diesel Tank (500 gallons) |
| EU-446 | Environmental Health and Safety Services Building (EHSSB) Boiler #1 (1.0 MMBtu/hr) |
| EU-447 | Environmental Health and Safety Services Building (EHSSB) Boiler #2 (1.0 MMBtu/hr) |
| EU-448 | Environmental Health and Safety Services Building (EHSSB) Boiler #3 (1.0 MMBtu/hr) |
| EU-450 | EHSSB Solvent Bulking Room |
| EU-461 | ASB Egen Diesel Tank (500 gallons) |
| EU-464 | Transportation Services Used oil AST (550 gallons) |
| EU-468 | Reiman Gardens Boiler #1 (1.377 MMBtu/hr) |
| EU-469 | Reiman Gardens Boiler #2 (1.377 MMBtu/hr) |

⁽¹⁾ The construction permit associated with this emission unit does not contain any specific terms or conditions, therefore it qualifies as an insignificant activity per rule 567 IAC 22.103.

| Insignificant Emission Unit Number | Insignificant Emission Unit Description |
|---|--|
| EU-470 | Reiman Gardens Boiler #3 (1.377 MMBtu/hr) |
| EU-471 | Reiman Gardens Boiler #4 (1.377 MMBtu/hr) |
| EU-474 | Hawthorn Court Market Boiler (1.0 MMBtu/hr) |
| EU-507 | Transportation Services E-85 AST (5,000 gallons) |
| EU-516 | Helser Hall Aerosols Spray Booth |
| EU-518 | Wallace Wilson Fuel Oil AST (2,500 gallons) |
| EU-525 | Maple Hall AST Diesel (1,000 gallons) |
| EU-534 | Spray Booth Aerosols College of Design |
| EU-592 | Olsen Building Water Heater # 1 (tankless on demand) (1.0 MMBtu/hr) |
| EU-593 | Olsen Building Water Heater # 2 (tankless on demand) (1.0 MMBtu/hr) |
| EU-594 | Olsen Building Water Heater # 3 (tankless on demand) (1.0 MMBtu/hr) |
| EU-595 | Olsen Building Water Heater # 4 (tankless on demand) (1.0 MMBtu/hr) |
| EU-596 | Olsen Building Water Heater # 5 (tankless on demand) (1.0 MMBtu/hr) |
| EU-597 | Olsen Building Water Heater # 6 (tankless on demand) (1.0 MMBtu/hr) |
| EU-604 | Reiman Gardens Hot Water Heater (0.3 MMBtu/hr, > 120 gallons) |
| EU-606 | Hach Hall E-Gen (EU532) AST Diesel (> 500 Gallons) |
| EU-607 | Howe Hall E-Gen (EU337) AST Diesel (> 500 Gallons) |
| EU-608 | LIDIF Hall E-Gen (EU352) AST Diesel (> 500 gallons) |
| EU-609 | Vet Med 2 E-Gen (EU508) AST Diesel (> 500 gallons) |
| EU-610 | Stephen Auditorium Stage Lift AST Hydraulic |
| EU-611 | Vet Med E-Gen (EU-540) AST Diesel (> 500 gallons) |
| EU-615 | Applied Science Center II Boiler (0.25 MMBtu/hr) |
| EU-616 | Fire Service Training Boiler (0.75 MMBtu/hr) |
| EU-619 | Schilleter Village Hot Water Heater #1 (0.7 MMBtu/hr, >120 gallons) |
| EU-620 | Schilleter Village Hot Water Heater #2 (0.7 MMBtu/hr, >120 gallons) |
| EU-626 | Agriculture & Biosystems Engineering E-Gen (EU625) Diesel Tank (> 500 gallons) |
| EU-627 | Wallace Wilson Fire System E-Gen Tank (EU624) (> 500 gallons) |
| EU-632 | Vet Med Pump House E-Gen (EU533) AST Tank (> 500 gallons) |
| EU-635 | Administrative Services Building Furnace #1 (0.007 MMBtu/hr) |
| EU-636 | Administrative Services Building Furnace #2 (0.007 MMBtu/hr) |
| EU-651 | Jack Trice Stadium South End Zone Boiler #1 (1.403 MMBtu/hr) |
| EU-652 | Jack Trice Stadium South End Zone Boiler #2 (1.403 MMBtu/hr) |
| EU-656 | Food Science & Human Nutrition Building Boiler (0.345 MMBtu/hr) |
| EU-659 | 4H Extension Boiler #1 (0.399 MMBtu/hr) |
| EU-660 | 4H Extension Boiler #2 (0.399 MMBtu/hr) |
| EU-661 | 4H Extension Boiler #3 (0.399 MMBtu/hr) |
| EU-662 | Jack Trice Stadium South End Zone Hot Water Heater #1 (0.399 MMBtu/hr, <120 gallons) |
| EU-663 | Jack Trice Stadium South End Zone Hot Water Heater #2 (0.399 MMBtu/hr, <120 gallons) |
| EU-664 | Knapp Storms Boiler AST fuel Oil (2,500 Gallons) |
| EU-665 | Veenker AST Gasoline (500 gallon) |
| EU-666 | Veenker AST Diesel (500 gallon) |
| EU-671 | Agriculture & Biosystems Engineering (Sukup) Dust Cyclone |
| EU-690 | Geoffroy Hall E-Gen (EU-689) AST Diesel (> 500Gallons) |
| EU-695 | Geoffroy Hall Hot Water Heater #1 (Tankless on demand, 1.35 MMBtu/hr) |

| Insignificant Emission Unit Number | Insignificant Emission Unit Description |
|---|---|
| EU-696 | Geoffroy Hall Hot Water Heater #2 (Tankless on demand, 1.35 MMBtu/hr) |
| EU-697 | Buchanan Hot Water Heater #1 (Tankless on demand, 1.35 MMBtu/hr) |
| EU-698 | Buchanan Hot Water Heater #2 (Tankless on demand, 1.35 MMBtu/hr) |
| EU-699 ⁽²⁾ | Geoffroy Hall Cooling Tower |
| EU-700 ⁽²⁾ | Applied Science Center I Cooling Tower #1 |
| EU-701 ⁽²⁾ | Applied Science Center I Cooling Tower #2 |
| EU-703 | Library Storage Facility Boiler #1 (0.285 MMBtu/hr) |
| EU-704 | Library Storage Facility Boiler #2 (0.285 MMBtu/hr) |
| EU-705 | Vet Med Diagnostic Modular Addition Furnace (0.15 MMBtu/hr) |
| EU-706 | Vet Med Diagnostic Modular Addition Furnace (0.15 MMBtu/hr) |
| EU-707 | Vet Med Diagnostic Modular Addition Furnace (0.15 MMBtu/hr) |
| EU-710 | Bessey Addition E-Gen (EU-709) AST Diesel (> 500 Gallons) |
| EU-712 | Advanced Teaching & Research Building (ATRB) E-Gen (EU711) AST Diesel (> 500 Gallons) |
| EU-713 | Eaton Hall E-Gen (EU-411) AST Diesel (> 500 Gallons) |
| EU-714 | Martin Hall E-Gen (EU-473) AST Diesel (> 500 Gallons) |
| EU-715 | North Chilled Water Plant Cooling Tower (Grandfathered) |

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

III. Emission Point Specific Conditions – Campus

Facility Name: Iowa State University
 Permit Number: **04-TV-014R3**

Emission Point ID Number: See Table: Existing Spark Ignition Engines ≥ 400 BHP and < 500 BHP

Associated Equipment

Table: Existing Spark Ignition Engines ≥ 400 BHP and < 500 BHP

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Raw Material/Fuel | Construction Date |
|-----------------------|---------------------------------|---|----------------------|-------------------|-------------------|
| EP-203 | EU-203 | Agronomy Hall Emergency Generator | 469 | Natural Gas | 01/01/1985 |
| EP-206 | EU-206 | National Laboratory for Agriculture and Environment Emergency Generator | 400 | Natural Gas | 06/01/1991 |
| EP-208 | EU-208 | Sweeney Hall Emergency Generator | 408 | Natural Gas | 01/01/1993 |

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.

Table: Existing Spark Ignition Engines ≥ 400 BHP and < 500 BHP -Emission Limits

| EP | Opacity 567 IAC 23.3(2)"d" | PM ₁₀ (lb/hr) | PM (gr/dscf) 567 IAC 23.3(2)"a" | PM (lb/hr) | SO ₂ (ppmv) 567 IAC 23.3(3)"e" | NO _x (lb/hr) | Iowa DNR Construction Permit (Authority for Requirement) |
|--------|----------------------------------|-----------------------------|--|---------------|--|----------------------------|---|
| EP-203 | 40% ⁽¹⁾ | 0.10 | 0.1 | NA | 500 | 10.29 | 04-A-278 |
| EP-206 | 40% ⁽²⁾ | 0.1 | 0.1 | 0.1 | 500 | 7.0 | 05-A-071-S1 |
| EP-208 | 40% ⁽¹⁾ | 0.10 | 0.1 | NA | 500 | 7.08 | 04-A-281 |

⁽¹⁾ An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

⁽²⁾ 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)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

A. Fuel shall be limited to natural gas only

Authority for Requirement: DNR Construction Permits 04-A-278, 05-A-071-S1, 04-A-281

For EP-203 Only

A. The quantity of natural gas shall not exceed 2.27 million cubic feet per 12-month rolling total.

Authority for Requirement: DNR Construction Permit 04-A-278

For EP-206 Only

A. The quantity of natural gas used shall not exceed 1.5 million cubic feet per 12-month rolling total.

B. This unit shall operate no more than 8 hours per calendar day.

Authority for Requirement: DNR Construction Permit 05-A-071-S1

For EP-208 Only

A. The quantity of natural gas used shall not exceed 1.56 million cubic feet per 12-month rolling total.

Authority for Requirement: DNR Construction Permit 04-A-281

Reporting & Record keeping

A. Record the monthly quantity (in Cubic Feet) of natural gas utilized.

B. Annual fuel usage shall be determined on a 12-month rolling basis, for each month of operation.

Authority for Requirement: DNR Construction Permits 04-A-278, 05-A-071-S1, 04-A-281

For EP-206 Only

A. For each day that this unit operates, record the date and the number of hours the unit operated.

Authority for Requirement: DNR Construction Permit 05-A-071-S1

NSPS and NESHAP Requirements

NESHAP Subpart ZZZZ:

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). According to 40 CFR 63.6590(a)(1)(ii) the spark ignition emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of subpart ZZZZ that are applicable by October 19, 2013.

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)
2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

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

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

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

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

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Table:

Existing Spark Ignition Engines \geq 400 BHP and $<$ 500 BHP Emission Point Characteristics

| Emission Point Number | Stack Height (ft, from the ground) | Stack Opening (dia., inches) | Exhaust Flow Rate (scfm) | Exhaust Temp. (°F) | Discharge Style | Authority for Requirement (DNR Construction Permit) |
|------------------------------|---|-------------------------------------|---------------------------------|---------------------------|---|--|
| EP-203 | 43 | 8 | 809 | 1110 | Vertically Unobstructed, Hinged Rain Flap | 04-A-278 |
| EP-206 | 65 | 8 | 560 | 927 | Vertical Unobstructed | 05-A-071-S1 |
| EP-208 | 50 | 8 | 790 | 1110 | Horizontally | 04-A-281 |

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: Existing Spark Ignition Engines > 500 HP

Associated Equipment

Table: Existing Spark Ignition Engines > 500 HP

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Raw Material/Fuel | Construction Date |
|-----------------------|---------------------------------|---------------------------------------|----------------------|-------------------|-------------------|
| EP-204 | EU-204 | Black Engineering Emergency Generator | 703 | Natural Gas | 01/01/1985 |
| EP-205 | EU-205 | Molecular Biology Emergency Generator | 844 | Natural Gas | 01/01/1991 |

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.

Table: Existing Spark Ignition Engines > 500 HP -Emission Limits

| EP | Opacity 567 IAC 23.3(2)"d" | PM ₁₀ (lb/hr) | PM (gr/dscf) 567 IAC 23.3(2)"a" | SO ₂ (ppmv) 567 IAC 23.3(3)"e" | NO _x (lb/hr) | Authority for Requirement (DNR Construction Permit) |
|--------|----------------------------------|-----------------------------|--|--|----------------------------|--|
| EP-204 | 40% ⁽¹⁾ | 0.18 | 0.1 | 500 | 13.76 | 04-A-279-S1 |
| EP-205 | 40% ⁽¹⁾ | 0.20 | 0.1 | 500 | 16.75 | 04-A-280 |

⁽¹⁾ An exceedance of the indicator opacity of 25% 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).

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

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

Authority for Requirement: DNR Construction Permits 04-A-279-S1, 04-A-280

For EP-204 Only

- A. The quantity of natural gas used shall not exceed 3.03 million cubic feet per 12-month rolling total.
- B. This engine shall operate as an emergency stationary internal combustion engine as defined in §63.6675. There is no time limit on the use of the engine in emergency situations provided that the annual fuel limit established in Condition A above is not exceeded. In accordance with §63.6640(f), the engine is limited to operate a maximum of 100 hours per calendar year for non-emergency situations, such as maintenance checks and readiness testing.

Authority for Requirement: DNR Construction Permit 04-A-279-S1

For EP-205 Only

- A. The quantity of natural gas used shall not exceed 3.69 million cubic feet per 12-month rolling total.

Authority for Requirement: DNR Construction Permit 04-A-280

Reporting & Record keeping

- A. Record the monthly quantity (in Cubic Feet) of natural gas utilized.
- B. Annual fuel usage shall be determined on a 12-month rolling basis, for each month of operation.

Authority for Requirement: DNR Construction Permits 04-A-279-S1, 04-A-280

For EP-204 Only

- A. Record the hours the unit operated for non-emergency situations for each month of operation.
- B. Record the total amount of hours the unit operated for non-emergency situations each calendar year.

Authority for Requirement: DNR Construction Permit 04-A-279-S1

NSPS and NESHAP Requirements

NESHAP ZZZZ:

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). According to 40 CFR 63.6590(a)(1)(i) the emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to December 19, 2002.

According to 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements.

Authority for Requirement: DNR Construction Permit 04-A-279-S1 (EP-204)
40 CFR Part 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

Table: Existing Spark Ignition Engines > 500 HP -Emission Point Characteristics

| Emission Point Number | Stack Height (ft, from the ground) | Stack Opening (dia., inches) | Exhaust Flow Rate (scfm) | Exhaust Temp. (°F) | Discharge Style | Iowa DNR Construction Permit (Authority for Requirement) |
|------------------------------|---|-------------------------------------|---------------------------------|---------------------------|------------------------|---|
| EP-204 | 1 * | 6 | 1152 | 1110 | Vertical Unobstructed | 04-A-279-S1 |
| EP-205 | 66.17 | 10 | 1547 | 1150 | Vertical Unobstructed | 04-A-280 |

* Construction permit 04-A-279-S1 states -4.5 ft.

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Existing Compression Engine-EP-352

Associated Equipment

Associated Emission Unit ID Numbers: EU-352

Emission Unit vented through this Emission Point: EU-352

Emission Unit Description: Livestock Infectious Disease Isolation Facility (LIDIF) Emergency Generator

Raw Material/Fuel: Diesel

Rated Capacity: 449 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: DNR Construction Permit 98-A-1086-S1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 1.05 lb/hr

Authority for Requirement: DNR Construction Permit 98-A-1086-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: DNR Construction Permit 98-A-1086-S1
567 IAC 23.3(2)"b"(1)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 0.93 lb/hr; 2.5 lb/MMBtu

Authority for Requirement: DNR Construction Permit 98-A-1086-S1
567 IAC 23.3(3)"b"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 18 lb/hr

Authority for Requirement: DNR Construction Permit 98-A-1086-S1

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 4.28 lb/hr

Authority for Requirement: DNR Construction Permit 98-A-1086-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

1. This source is limited to using #2 fuel oil, with a sulfur content of no greater than 0.1% (weight basis).
2. This source shall operate no more than 500 hours per 12-month rolling period.

Reporting & Record keeping

1. The sulfur content of the #2 fuel oil, as a weight percentage.
2. The hours of operation each month.
3. During the initial 12 months of operation, cumulative time of use shall be determined at the end of each month.
4. After the initial 12 months of operation, annual time of use shall be determined on a rolling 12 month basis, at the end of each month.

Authority for Requirement: DNR Construction Permit 98-A-1086-S1

NSPS and NESHAP Requirements

NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this compression ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

Compliance Date

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

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(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 and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

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

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

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

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

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 36

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (acfm): 2452

Exhaust Temperature (°F): 1002

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 98-A-1086-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may

vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: Existing Compression Ignition Engines > 500HP

Associated Equipment

Table: Existing Spark Ignition Engines > 500 HP

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Raw Material/Fuel | Construction Date |
|-----------------------|---------------------------------|---|----------------------|-------------------|-------------------|
| EP-246 | EU-246 | ILRIF / Kildee Hall Emergency Generator | 540 | Fuel Oil #1 or #2 | 06/01/1998 |
| EP-337 | EU-337 | Howe Hall Emergency Generator | 1039 | Fuel Oil #2 | 06/01/1998 |
| EP-338 | EU-338 | Maple Hall Emergency Generator | 804 | Fuel Oil #2 | 02/01/1998 |

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.

Table: Existing Spark Ignition Engines > 500HP - Emission Limits

| EP | Opacity 567 IAC 23.3(2)"d " | PM ₁₀ (lb/hr) | PM (gr/dscf) 567 IAC 23.3(2)"a" | PM (lb/MMBtu) 567 IAC 23.3(2)"b" | SO ₂ | NO _x (lb/hr) | CO (lb/hr) | Iowa DNR Construction Permit (Authority for Requirement) |
|--------|--------------------------------------|-----------------------------|--|---|-----------------------------|----------------------------|---------------|--|
| EP-246 | 40% ⁽¹⁾ | 3.29 | 0.1 | NA | 2.5 lb/MMBtu ⁽²⁾ | 25.0 | NA | 98-A-458-S1 |
| EP-337 | 40% ⁽¹⁾ | 2.0 | 0.1 | 0.6 | 0.71 lb/hr | 22.44 | 6.0 | 99-A-316 |
| EP-338 | 40% ⁽¹⁾ | 0.69 | NA | 0.6 | NA | NA | NA | 99-A-324 |

⁽¹⁾ An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

⁽²⁾ Additional Authority 567 IAC 23.3(3)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

A. The use of the generator shall not exceed 500 hours per 12-month rolling total.

Authority for Requirement: DNR Construction Permits 98-A-458-S1, 99-A-316, and 99-A-324

For EP-246 Only

- A. The fuel shall be limited to #1 or #2 distillate fuel oil only.
- B. The sulfur content of the fuel oil shall not exceed 0.5% by weight.

Authority for Requirement: DNR Construction Permit 98-A-458-S1

For EP-337 and EP-338

- A. The fuel source is limited to #2 diesel with a sulfur content not to exceed 0.1% by weight.

Authority for Requirement: DNR Construction Permits 99-A-316, 99-A-324

Reporting & Record keeping

For EP-246

- A. Record the type of fuel used and the sulfur content of the fuel.
- B. Record the monthly usage of the generator (in hours).
- C. Annual generator usage shall be determined on a 12-month rolling basis, for each month of operation.

Authority for Requirement: DNR Construction Permit 98-A-458-S1

For EP-337 and EP-338

- A. The type of fuel used.
- B. The sulfur content (by weight percent) of the fuel used.
- C. The number of hours of operation of the generator per twelve month period rolled monthly.

Authority for Requirement: DNR Construction Permits 99-A-316, 99-A-324

NSPS and NESHAP Requirements

NESHAP ZZZZ:

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). According to 40 CFR 63.6590(a)(1)(i) the emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to December 19, 2002.

According to 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements.

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

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Table: Existing Spark Ignition Engines > 500HP – Emission Point Characteristics

| Emission Point Number | Stack Height (ft. from the ground) | Stack Opening (dia., inches) | Exhaust Flow Rate | Exhaust Temp. (°F) | Discharge Style | Iowa DNR Construction Permit (Authority for Requirement) |
|------------------------------|---|-------------------------------------|--------------------------|---------------------------|------------------------|---|
| EP-246 | 35.5 | 8 | 1468 scfm | 695 | Vertical Obstructed | 98-A-458-S1 |
| EP-337 | 84 | 12 | 5414 acfm | 1024 | Vertical Unobstructed | 99-A-316 |
| EP-338 | 14.1 | 6 | 3945 acfm | 939 | NA | 99-A-324 |

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-508

Associated Equipment

Associated Emission Unit ID Numbers: EU-508

Emission Unit vented through this Emission Point: EU-508
Emission Unit Description: Vet Med 2 Emergency Generator
Raw Material/Fuel: Diesel
Rated Capacity: 965 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: DNR Construction Permit 07-A-1347-S2
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM₁₀)
Emission Limit(s): 1.06 lb/hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2

Pollutant: Particulate Matter-State (PM)
Emission Limit(s): 1.06 lb/hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2

Pollutant: Particulate Matter-Federal (PM)
Emission Limit(s): 0.54 g/KW-hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2
40 CFR §60.4205(a)
NSPS Subpart III

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: DNR Construction Permit 07-A-1347-S2
567 IAC 23.3(3)

Pollutant: Nitrogen Oxide (NO_x)
Emission Limit(s): 23.4 lb/hr; 9.2 g/KW-hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2
40 CFR §60.4205(a)
NSPS Subpart III

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.68 lb/hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 6.46 lb/hr; 11.4 g/KW-hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2
40 CFR §60.4205(a)
NSPS Subpart III

Pollutant: Hydrocarbons (HC)
Emission Limit(s): 1.3 g/KW-hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2
40 CFR §60.4205(a)
NSPS Subpart III

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

Operating Limits

- A. The emergency generator shall be fired by diesel fuel only.
- B. The sulfur content of any diesel fuel used in the emergency generator shall not exceed 0.05% by weight.
- C. The emergency generator shall operate no more than 500 hours per 12-month rolling period.
- D. The emergency generator shall operate no more than 100 hours per 12-month rolling period for maintenance checks and readiness testing per 40 CFR§60.4211(e).
- E. Per 40 CFR§60.4211, for owners and operators of emergency engines meeting standards under §60.4205, but not §60.4204, any operation other than emergency operation, and maintenance and testing is prohibited.
- F. The owner or operator shall meet the fuel requirements specified in 40 CFR§60.4207.
 1. Beginning October 1, 2010, diesel fuel fired in the emergency generator shall be limited to a maximum sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume per 40 CFR§80.510(b).
 2. Per 40 CFR§60.4207, owners and operators of pre-2011 model year diesel generators subject to NSPS Subpart III may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of 40 CFR§80.510(a) or CFR§80.510(b) beyond the dates required, for the purpose of using up existing fuel inventories.
- G. Per 40 CFR§60.4209, the owner or operator shall install a non-resettable hour meter prior to startup of the emergency generator.

- H. Per 40 CFR§60.4211, the owner or operator shall purchase an engine certified to the emission standards in §60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

Reporting & Record keeping

- A. Record the sulfur content of any fuel used in the emergency generator in weight percent.
- B. Record the number of hours the emergency generator is operated each month and the reason the emergency generator was operated. Calculate and record 12-month rolling totals.
- C. The owner or operator shall complete all recordkeeping and monitoring as required by NSPS Subpart III.
 - 1. The owner or operator of the emergency generator shall follow the monitoring requirements of 40 CFR§60.4209.
 - 2. The owner or operator of the emergency generator shall follow the compliance requirements of 40 CFR§60.4211.
 - 3. The owner or operator of the emergency generator shall follow the notification, reporting, and recordkeeping requirements of 40 CFR§60.4214(b).

Authority for Requirement: DNR Construction Permit 07-A-1347-S2

NSPS and NESHAP Requirements

NESHAP ZZZZ:

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)(i) this emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after December 19, 2002.

According to 40 CFR 63.6590(b)(1)(i), a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for initial notification requirements of 40 CFR 63.6645(f).

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

NSPS III:

This emission unit is subject to the New Source Performance Standards (NSPS) Subpart III – Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines* (40 CFR §60.4200 through 40 CFR §60.4219) and to the applicable provisions of NSPS Subpart A - General Provisions (40 CFR §60.1 through 40 CFR §60.19) and is also subject to the requirements of 567 IAC 23.1(2)"yyy".

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

Authority for Requirement: DNR Construction Permit 07-A-1347-S2
40 CFR Part 60 Subpart III
567 IAC 23.1(2)"yyy"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 17 ⁽¹⁾
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 1933
Exhaust Temperature (°F): 1300
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 07-A-1347-S2
⁽¹⁾ This engine has identical dual stacks.

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-540

Associated Equipment

Associated Emission Unit ID Numbers: EU-540

Emission Unit vented through this Emission Point: EU-540
Emission Unit Description: Vet Med Emergency Generator
Raw Material/Fuel: Diesel
Rated Capacity: 1069 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% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 11-A-215
567 IAC 23.3(2)"d"

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

Pollutant: Opacity (Acceleration Mode)

Emission Limit(s): 20%

Authority for Requirement: Iowa DNR Construction Permit 11-A-215
40 CFR 60 Subpart III
40 CFR §89.113(a)(1)

Pollutant: Opacity (Lugging Mode)

Emission Limit(s): 15%

Authority for Requirement: Iowa DNR Construction Permit 11-A-215
40 CFR 60 Subpart III
40 CFR §89.113(a)(2)

Pollutant: Opacity (Peak in Acceleration or Lugging Mode)

Emission Limit(s): 50%

Authority for Requirement: Iowa DNR Construction Permit 11-A-215
40 CFR 60 Subpart III
40 CFR §89.113(a)(3)

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.35 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-215

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.20 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-215
567 IAC 23.3(2)"a"
40 CFR 60 Subpart III
40 CFR §89.112(a)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)

Pollutant: Nitrogen Oxide (NO_x)

Emission Limit(s): 11.25 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-215

Pollutant: Non-Methane Hydrocarbon (NMHC)+Nitrogen Oxides (NO_x)

Emission Limit(s): 6.4 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-215
567 IAC 23.3(2)"a"
40 CFR 60 Subpart III
40 CFR §89.112(a)

Pollutant: Carbone Monoxide (CO)

Emission Limit(s): 3.5 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 11-A-215
567 IAC 23.3(2)"a"
40 CFR 60 Subpart III
40 CFR §89.112(a)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

Operating Limits

- A. This engine is limited to burning diesel fuel oil only.
- B. This engine is limited to operating a maximum of 55 hours in any rolling 12-month period.
- C. This engine is limited to operating for emergency situations and required testing and maintenance. In accordance with §60.4211(e), the engine is limited to operating a maximum of 100 hours per year for maintenance checks and readiness testing. This engine is not allowed to operate as a peak shaving unit.
- D. 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:
 1. A maximum sulfur content of 15 ppm (0.0015%) by weight; and

2. A minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.
- E. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.
- F. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the manufacturer. The owner or operator may only change engine settings that are permitted by the manufacturer.

Reporting & Record keeping

- A. The owner or operator shall maintain the following monthly records:
 1. The total number of hours that the engine operated;
 2. The number of hours that the engine operated for maintenance checks and readiness testing; and
 3. The rolling 12-month total amount of the number of hours that the engine operated.
- B. The owner or operator shall maintain an annual record of the number of hours that the engine operated for maintenance checks and readiness testing.
- C. The owner or operator of the engine shall comply with the requirements of Operating Limit D listed above by one of the following methods:
 1. 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);
 2. Obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
 3. Perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

Authority for Requirement: DNR Construction Permit 11-A-215

NSPS and NESHAP Requirements

NESHAP ZZZZ:

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)(i) this emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after December 19, 2002.

According to 40 CFR 63.6590(b)(1)(i), a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for initial notification requirements of 40 CFR 63.6645(f).

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

NSPS III:

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).
- 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).

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

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): 1659
Exhaust Temperature (°F): 1211
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-215

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-625

Associated Equipment

Associated Emission Unit ID Numbers: EU-625

Emission Unit vented through this Emission Point: EU-625
Emission Unit Description: ABE Emergency Generator
Raw Material/Fuel: Diesel
Rated Capacity: 752 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% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 13-A-459
567 IAC 23.3(2)"d"

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

Pollutant: Opacity (Acceleration Mode)

Emission Limit(s): 20%

Authority for Requirement: Iowa DNR Construction Permit 13-A-459
40 CFR 60 Subpart III
40 CFR §89.113(a)(1)

Pollutant: Opacity (Lugging Mode)

Emission Limit(s): 15%

Authority for Requirement: Iowa DNR Construction Permit 13-A-459
40 CFR 60 Subpart III
40 CFR §89.113(a)(2)

Pollutant: Opacity (Peak in Acceleration or Lugging Mode)

Emission Limit(s): 50%

Authority for Requirement: Iowa DNR Construction Permit 13-A-459
40 CFR 60 Subpart III
40 CFR §89.113(a)(3)

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.20 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 13-A-459
567 IAC 23.3(2)"a"
40 CFR 60 Subpart III
40 CFR §89.112(a)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)

Pollutant: Non-Methane Hydrocarbon (NMHC)+Nitrogen Oxides (NO_x)

Emission Limit(s): 6.4 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 13-A-459
567 IAC 23.3(2)"a"
40 CFR 60 Subpart III
40 CFR §89.112(a)

Pollutant: Carbone Monoxide (CO)

Emission Limit(s): 3.5 g/kW-hr

Authority for Requirement: Iowa DNR Construction Permit 13-A-459
567 IAC 23.3(2)"a"
40 CFR 60 Subpart III
40 CFR §89.112(a)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

Operating Limits

- A. This engine is limited to burning diesel fuel oil that meets the requirements of Operating Limit Condition D below.
- B. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.
- C. This engine is limited to operate as an emergency stationary internal combustion engine as defined in §60.4219 and in accordance with §60.4211. There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition B. above is not exceeded. In accordance with §60.4211, the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing. 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 to generate income for the facility to supply power to the 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.

- D. 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:
 - i. a maximum sulfur content of 15 ppm (0.0015%) by weight; and
 - ii. a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.
- E. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.
- F. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g).
- G. 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.

Reporting & Record keeping

- A. 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.
- B. 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.
- C. The owner or operator of the engine shall comply with the requirements of Operating Limit condition D 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.

Authority for Requirement: DNR Construction Permit 13-A-459

NSPS and NESHAP Requirements

NESHAP ZZZZ:

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)(i) this emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after December 19, 2002.

According to 40 CFR 63.6590(b)(1)(i), a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for initial notification requirements of 40 CFR 63.6645(f).

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

NSPS Subpart IIII

This engine is subject to 40 CFR Part 60 NSPS Subpart IIII – 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).
- 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).

Authority for Requirement: DNR Construction Permit 13-A-459
40 CFR Part 60 Subpart IIII
567 IAC 23.1(2)"yyy"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 75

Stack Opening, (inches, dia.): 10

Exhaust Flow Rate (scfm): 1613

Exhaust Temperature (°F): 1300

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 13-A-459

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Permitted Boilers > 5 MMBtu/hr) EP-210

Associated Equipment

Table: Wallace-Wilson Halls Boiler #1 and #2

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Maximum Rated Capacity | Control Equipment Description and ID |
|------------------------------|--|----------------------------------|---|---|
| EP-210 | EU-210 | Wallace-Wilson Halls Boiler #1 | 10.5 MMBtu/hr Natural Gas; 75 gal/hr fuel oil #1 or #2 | Flue Gas Recirculation (CE-210) |
| | EU-211 | Wallace-Wilson Halls Boiler #2 | 10.5 MMBtu/hr Natural Gas; 75 gal/hr fuel oil #1 or #2 | |

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 04-A-282-S1
567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀

Emission Limit(s): 0.70 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-282-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.6 lb/MMBtu, 0.70 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-282-S1
567 IAC 23.3(2)"b"(2)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 17.04 lb/hr; 38.34 tons/yr; 0.5% by weight S⁽²⁾; 500 ppmv⁽³⁾

Authority for Requirement: DNR Construction Permit 04-A-282-S1

- ⁽²⁾Limit applicable to fuel oil #1 and Fuel oil #2 combusted in Boiler #1 and Boiler #2. Compliance demonstration specified in Operating Limits & Requirements paragraph C.

- ⁽³⁾Limit applicable to natural gas combusted in Boiler #1 and Boiler #2. The facility will demonstrate compliance with this limit by combusting pipeline quality natural gas

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 4.12 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-282-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator shall combust only pipeline quality natural gas, fuel oil #1, or fuel oil #2. The owner or operator shall maintain a record of the type of fuel burned in Boiler #1 (EU-210) and Boiler #2 (EU-211).
- B. The owner or operator shall not combust more than 1,080,000 gallons of fuel oil #1 and fuel oil #2 in boiler #1 (EU-210) and Boiler #2 (EU-211) in any rolling 12-month period. On a monthly basis, the owner or operator shall:
 - a. Record the total amount of fuel oil #1 and Fuel oil #2, in gallons, combusted in Boiler #1 (EU-210) and Boiler #2 (EU-211); and
 - b. Calculated and record the rolling 12-month total amount of fuel oil #1 and fuel oil #2, in gallons, combusted in Boiler #1 (EU-210) and Boiler #2 (EU-211).
- C. The sulfur content of the fuel oil #1 and fuel oil #2 combusted shall not exceed 0.5% by weight. The owner or operator shall certify the sulfur content of the distillate oil burned in Boiler #1 (EU-210) and Boiler #2 (EU-211). The fuel certification shall include the name of the oil supplier and the sulfur content or the maximum sulfur content of the oil.

Authority for Requirement: DNR Construction Permit 04-A-282-S1

NSPS and NESHAP Requirements

NESHAP DDDDD:

The boilers are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial and Institutional Boilers and Process Heaters* [40 CFR Part 63 Subpart DDDDD]

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 45

Stack Opening, (inches, dia.): 29.5

Exhaust Flow Rate (scfm): 4500

Exhaust Temperature (°F): 250

Discharge Style: Vertically Unobstructed

Authority for Requirement: DNR Construction Permit 04-A-282-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Permitted Boilers > 5 MMBtu/hr) EP-412

Associated Equipment

Associated Emission Unit ID Numbers: EU-412

Emission Unit vented through this Emission Point: EU-412

Emission Unit Description: Knapp-Storms Boiler #1

Raw Material/Fuel: Natural Gas, Fuel Oil #1 and #2

Rated Capacity: 5.021 MMBtu/hr, 44.8 gallons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 05-A-354-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM10)

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-354-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.20 lb/hr; 0.6 lb/MMBtu

Authority for Requirement: DNR Construction Permit 05-A-354-S1
567 IAC 23.3(2)

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 3.40 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-354-S1

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 1.0 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-354-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. The fuel shall be limited to natural gas, Fuel Oil #1 or Fuel Oil #2.
- B. The sulfur content of the fuel oil shall not exceed 0.5% by weight.
- C. The boiler, EU-412, shall not exceed 500 hours of operation per 12-month rolling total while using fuel oil #1 or #2.

Reporting & Record keeping

- A. Record the type of fuel used and the sulfur content of the fuel.
- B. Record the monthly hours of operation while firing fuel oil #1 or #2.
- C. Annual usage of fuel oil shall be determined on a 12-month rolling basis, for each month of operation.

Authority for Requirement: DNR Construction Permit 05-A-354-S1

NSPS and NESHAP Requirements

NESHAP DDDDD:

This equipment is subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial and Institutional Boilers and Process Heaters* [40 CFR Part 63 Subpart DDDDD]

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32

Stack Opening, (inches, dia.): 16

Exhaust Flow Rate (scfm): 2,080

Exhaust Temperature (°F): 375

Discharge Style: Vertically Unobstructed

Authority for Requirement: DNR Construction Permit 05-A-354-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Permitted Boilers > 5 MMBtu/hr) EP-413

Associated Equipment

Associated Emission Unit ID Numbers: EU-413

Emission Unit vented through this Emission Point: EU-413
Emission Unit Description: Knapp-Storms Boiler #2
Raw Material/Fuel: Natural Gas, Fuel Oil #1 and #2
Rated Capacity: 5.021 MMBtu/hr, 44.8 gallons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 05-A-355-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.20 lb/hr; 0.6 lb/MMBtu

Authority for Requirement: DNR Construction Permit 05-A-355-S1
567 IAC 23.3(2)

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-355-S1

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 3.40 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-355-S1

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 1.00 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-355-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. The fuel shall be limited to natural gas, Fuel Oil #1 or Fuel Oil #2.
- B. The sulfur content of the fuel shall not exceed 0.5% by weight.
- C. The boiler, EU-413*, shall not exceed 500 hours of operation per 12-month rolling basis, for each month of operation.

Reporting & Record keeping

- A. Record the type of fuel used and the sulfur content of the fuel.
- B. Record the monthly hours of operation while firing fuel oil #1 or #2.
- C. Annual usage of fuel oil shall be determined on a 12-month rolling basis, for each month of operation.

Authority for Requirement: DNR Construction Permit 05-A-355-S1

*Construction Permit 05-A-355-S1 incorrectly lists the boiler as EU-412. The correct identifier is EU-413.

NSPS and NESHAP Requirements

NESHAP DDDDD:

This equipment is subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial and Institutional Boilers and Process Heaters* [40 CFR Part 63 Subpart DDDDD]

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32

Stack Opening, (inches, dia.): 16

Exhaust Flow Rate (scfm): 2,080

Exhaust Temperature (°F): 375

Discharge Style: Vertically Unobstructed

Authority for Requirement: DNR Construction Permit 05-A-355-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Permitted Boilers > 5 MMBtu/hr) See Table: Vet Med Boilers

Associated Equipment

Table: Vet Med Boilers

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Raw Material | Rated Capacity (MMBtu/hr) | Iowa DNR Construction Permit (Authority for Requirement) |
|------------------------------|--|----------------------------------|---------------------|----------------------------------|---|
| EP-588 | EU-588 | Vet Med Boiler # 1 | Natural Gas | 17.855 | 11-A-345 |
| EP-589 | EU-589 | Vet Med Boiler # 2 | Natural Gas | 17.855 | 11-A-346 |
| EP-590 | EU-590 | Vet Med Boiler # 3 | Natural Gas | 17.855 | 11-A-347 |
| EP-591 | EU-591 | Vet Med Boiler # 4 | Natural Gas | 17.855 | 11-A-348 |

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.13 lb/hr

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.13 lb/hr; 0.6 lb/MMBtu

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers
567 IAC 23.3(2)"b"

Pollutant: Nitrogen Oxide (NO_x)

Emission Limit(s): 0.85 lb/hr

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers

Pollutant: CO

Emission Limit(s): 1.43 lb/hr

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

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

Reporting & Record keeping

A. Maintain a record of the type of fuel used.

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers

NSPS and NESHAP Requirements

NSPS Subpart Dc:

These boilers are subject to Standards of Performance for *Small Industrial-Commercial-Institutional Steam Generating Units*. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart Dc & Subpart A, *General Provisions*.

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers
40 CFR Part 60 Subpart Dc
567 IAC 23.1(2)"III"

NESHAP Subpart DDDDD:

These boilers are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial, and Institutional Boilers and Process Heaters* [40 CFR Part 63 Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Emission Point Characteristics

The emission points shall conform to the conditions listed below.

Stack Height, (ft, from the ground): 49

Stack Opening, (inches, dia.): 28

Exhaust Flow Rate (scfm): 4821

Exhaust Temperature (°F): 301

Discharge Style: Vertically, without ran cap or with unobstructing rain cap

Authority for Requirement: DNR Construction Permits in Table: Vet Med Boilers

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-200

Associated Equipment

Associated Emission Unit ID Numbers: EU-200
Emissions Control Equipment ID Number: CE-200
Emissions Control Equipment Description: Afterburner

Emission Unit vented through this Emission Point: EU-200
Emission Unit Description: Vet Med Incinerator
Raw Material/Fuel: Waste and Natural Gas
Rated Capacity: 1080 lbs/hr and 0.0024 MMcf/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾⁽²⁾

Authority for Requirement: DNR Construction Permit 75-A-368-S3
567 IAC 23.3(2)"d"

⁽¹⁾ Note that visible air contaminants in excess of 60% opacity may be emitted for a period or period aggregating not more than 3 minutes in any 60-minute period during an operation breakdown or during the cleaning of air pollution control equipment.

⁽²⁾ An exceedance of the indicator opacity of 25% 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

Emission Limit(s): 0.2 gr/dscf ⁽³⁾

Authority for Requirement: DNR Construction Permit 75-A-368-S3
567 IAC 23.4(12)"a"

⁽³⁾ 0.2 grains per standard cubic foot adjusted to 12 percent carbon dioxide

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: DNR Construction Permit 75-A-368-S3
567 IAC 23.3(3)"e"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. The emission unit's primary and secondary burners shall operate exclusively on natural gas, i.e. no backup fuel source.
- B. The afterburner shall operate at all times during any operation of the primary chamber.
- C. The incinerator is limited to combusting a fuel feed stream 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis as defined in 40 CFR 60.51c.

Reporting & Record keeping

- A. Record the amount of natural gas used on a rolling 12-month basis.
- B. Record the weight of hospital waste and medical/infectious waste combusted by the incinerator as measured on rolling 12-month basis.
- C. Record the weight of all other fuels and waste combusted by the incinerator as measured on a rolling 12-month basis.

Authority for Requirement: DNR Construction Permit 75-A-368-S3

NSPS and NESHAP Requirements

NSPS Subpart Ce

This incinerator is subject to New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Ce, *Emission Guidelines and Compliance Times for Hospital/Medical Infectious Waste Incinerator*. However, the facility does meet an exemption as described in 60.32e(c) to this subpart and is allowed to do reduced requirements within the section.

Authority for Requirement: DNR Construction Permit 75-A-368-S3
40 CFR Part 60, Subpart Ce

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 70

Stack Opening, (inches, dia.): 31

Exhaust Flow Rate (scfm): 4600

Exhaust Temperature (°F): 1800

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 75-A-368-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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

The data pertaining to the plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-220

Associated Equipment

Associated Emission Unit ID Numbers: EU-220
Emissions Control Equipment ID Number: CE-220
Emissions Control Equipment Description: Fabric Filters

Emission Unit vented through this Emission Point: EU-220
Emission Unit Description: FP&M Paint Spray Booth
Raw Material/Fuel: Paint
Rated Capacity: 3.75 gallons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 04-A-286
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM10)

Emission Limit(s): 1.11 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-286

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.01 gr/dscf

Authority for Requirement: DNR Construction Permit 04-A-286
567 IAC 23.4(13)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

A. The spray gun capacity being used may operate at a maximum rate of 3.75 gal/hr.

- B. The facility is limited to using no more than 500 gallons of painting and cleaning materials per 12-month rolling period.
- C. The facility is limited to using painting and cleaning materials with a maximum Volatile Organic Compounds (VOC) content of 12.0 pounds per gallon.
- D. The facility is limited to using painting and cleaning materials with an individual Hazardous Air Pollutant (HAPs) content of 5.0 pound per gallon.

Reporting & Record keeping

- A. Record monthly material usage (units of gal/month) of painting and cleaning materials used at the facility.
- B. Record VOC and HAPs content in lbs/gal of each material used at the facility.
- C. The MSDS of each painting and cleaning material used at the facility shall be kept on-site and available for inspection by the DNR.
- D. During the initial 12 months of operation, cumulative plantwide material usage shall be determined for each month of operation.
- E. After the initial 12 months of operation, annual plantwide material usage shall be determined on a 12 month rolling basis, for each month of operation.

Authority for Requirement: DNR Construction Permit 04-A-286

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 24

Stack Opening, (inches, dia.): 30

Exhaust Flow Rate (scfm): 13,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertically Unobstructed

Authority for Requirement: DNR Construction Permit 04-A-286

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Paint Booth Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-235

Associated Equipment

Associated Emission Unit ID Numbers: EU-235

Emission Unit vented through this Emission Point: EU-235
Emission Unit Description: Meats Lab Linear Accelerator
Raw Material/Fuel: Electricity
Rated Capacity: 0.40 lbs/hr of ozone production

Applicable Requirements

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

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

None at this time.

Operational Limits & Requirements

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

None at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 48
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 14,600
Exhaust Temperature (°F): Ambient
Discharge Style: Vertically Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-1061

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-236

Associated Equipment

Associated Emission Unit ID Numbers: EU-236

Emission Unit vented through this Emission Point: EU-236
Emission Unit Description: Meats Lab Smoke House #1
Raw Material/Fuel: Wood, Meat
Rated Capacity: 0.42 lb of wood/hr and 1500 lb of meat/day

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 04-A-289-S1
567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.2 gr/dscf

Authority for Requirement: DNR Construction Permit 04-A-289-S1
567 IAC 23.4(9)

Pollutant: Particulate Matter (PM10)

Emission Limit(s): 1.23 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-289-S1

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

A. Smokehouse #1 shall be limited to operating no more than 1500 hours per twelve-month rolling period.

- B. Smokehouse #1 shall be limited to using no more than 1000 lbs of sawdust per twelve-month rolling period.

Reporting & Record keeping

- A. The number of hours operated per twelve-month rolling period.
- B. The amount of sawdust used per twelve-month rolling period.

Authority for Requirement: DNR Construction Permit 04-A-289-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 41

Stack Opening, (inches, dia.): 7

Exhaust Flow Rate (scfm): 720

Exhaust Temperature (°F): 129

Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 04-A-289-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-237

Associated Equipment

Associated Emission Unit ID Numbers: EU-237

Emission Unit vented through this Emission Point: EU-237

Emission Unit Description: Meats Lab Smoke House #2

Raw Material/Fuel: wood, meat

Rated Capacity: 0.42 lb of wood/hr and 1500 lb of meat/day

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 04-A-290-S1
567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 25% 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 (PM10)

Emission Limit(s): 1.31 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-290-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.2 gr/dscf

Authority for Requirement: DNR Construction Permit 04-A-290-S1
567 IAC 23.4(9)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. Smokehouse #2 shall be limited to operating no more than 1500 hours per twelve-month rolling period.

B. Smokehouse #2 shall be limited to using no more than 1000 lbs of sawdust per twelve-month rolling period.

Reporting & Record keeping

A. The number of hours operated per twelve-month rolling period.

B. The amount of sawdust used per twelve-month rolling period.

Authority for Requirement: DNR Construction Permit 04-A-290-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 46

Stack Opening, (inches, dia.): 10

Exhaust Flow Rate (scfm): 765

Exhaust Temperature (°F): 129

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 04-A-290-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-244

Associated Equipment

Associated Emission Unit ID Numbers: EU-244

Emissions Control Equipment ID Number: CE-244a, CE-244b and CE-244c

Emissions Control Equipment Description: Cyclone 1, Cyclone 2 and Water Filter

Emission Unit vented through this Emission Point: EU-244

Emission Unit Description: ASC II Metal Atomizer

Raw Material/Fuel: Metal

Rated Capacity: 12.50 lb/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 04-A-291
567 IAC 23.3(2)"d"

- ⁽¹⁾ An exceedance of the indicator opacity of 25% 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 (PM10)

Emission Limit(s): 3.69 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-291

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 04-A-291
567 IAC 23.4(5)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

A. The use of the metal atomizer shall not exceed 7500 hours on a 12 month rolling average

Reporting & Record keeping

A. The facility shall record the hours of operation for this emission unit for each day of operation.

Authority for Requirement: DNR Construction Permit 04-A-291

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 32.8

Stack Opening, (inches, dia.): 4.375

Exhaust Flow Rate (scfm): 4300

Exhaust Temperature (°F): Ambient

Discharge Style: Vertically Unobstructed

Authority for Requirement: DNR Construction Permit 04-A-291

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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

The data pertaining to the plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility’s implementation of its obligation to operate according to good air pollution control practice.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-506

Associated Equipment

Associated Emission Unit ID Numbers: EU-506

Emission Unit vented through this Emission Point: EU-506
Emission Unit Description: Vet Med Cooling Tower
Raw Material/Fuel: Cooling Water with Dissolved Solids
Rated Capacity: 1,044,000 gallons/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: Particulate Matter (PM₁₀)
Emission Limit(s): 3.81 tons/yr
Authority for Requirement: DNR Construction Permit 07-A-136

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.81 tons/yr
Authority for Requirement: DNR Construction Permit 07-A-136

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. The average Total Dissolved Solids (TDS) Concentration in the cooling water shall not exceed 2,000 ppm for any 30-day rolling period.

Reporting & Record keeping

- A. The owner or operator shall measure the electrical conductivity of the cooling water to determine the Total Dissolved Solids (TDS) on a continuous basis. The owner or operator is required to take (1) water sample per month over a six month period to determine the relationship between the TDS and electrical conductivity. The determined TDS/conductivity relationship and the measured electrical conductivity value shall be used to determine compliance with allowable TDS concentration. (NOTE: for any malfunctions that may occur to the TDS monitoring system, the owner/operator may take daily grab samples. The TDS monitoring system is required to be operational at least 95% of the time. If the TDS monitoring system experiences downtime for more than 5% of the time a backup TDS monitoring system is required to be installed.)

B. The owner or operator shall operate and maintain the cooling tower per the manufacturer's instructions and specifications.

Authority for Requirement: DNR Construction Permit 07-A-136

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 24.6

Stack Opening, (inches, dia.): 264

Exhaust Flow Rate (acfm): 2,083,420

Exhaust Temperature (°F): 95

Discharge Style: Vertical

Authority for Requirement: DNR Construction Permit 07-A-136

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Campus Miscellaneous Sources) EP-708

Associated Equipment

Associated Emission Unit ID Numbers: EU-708
Emissions Control Equipment ID Number: CE-708
Emissions Control Equipment Description: Mist Eliminator (0.0005% Drift Loss)

Emission Unit vented through this Emission Point: EU-708
Emission Unit Description: North Chilled Water Plant Cooling Tower #6
Raw Material/Fuel: Cooling Water with Dissolved Solids
Rated Capacity: 16,000 gallons per minute (total)

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾⁽²⁾

Authority for Requirement: DNR Construction Permit 17-A-216
567 IAC 23.3(2)"d"

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

⁽²⁾The emission limit is based on a six (6) minute average.

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-216

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: DNR Construction Permit 17-A-216

Pollutant: Particulate Matter (PM)

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

Authority for Requirement: DNR Construction Permit 17-A-216
567 IAC 23.3(2)"a"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. The maximum total dissolved solids content of the circulating water shall not exceed a concentration of 2,000 ppmw.
- B. Once a month, the owner/operator shall sample and analyze the circulating cooling water to determine the total dissolved solids concentration of the water. These samples shall be taken once each calendar month with at least 15 days between samples.
- C. Any water treated chemicals used in this unit shall have a maximum VOC content of no more than 1.0 pounds per gallon.
- D. The maximum usage of water treatment chemicals that contain VOC's shall not exceed 15,000 gallons per twelve (12) month period, rolled monthly.

Reporting & Recordkeeping

- A. Maintain an SDS or other vendor's documentation showing the VOC content of any water treatment chemicals used in this unit.
- B. At the end of each month, record the amount of VOC containing water treatment chemicals used during the last month.
- C. At the end of each month, record the amount of VOC containing water treatment chemicals used during the previous twelve (12) months.

Authority for Requirement: DNR Construction Permit 17-A-216

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 34.6

Stack Opening, (inches, dia.): 264

Exhaust Flow Rate (scfm): 428,000 ⁽²⁾

Exhaust Temperature (°F): ⁽¹⁾

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 17-A-216

⁽¹⁾ Exhaust temperature of this operation will vary with ambient conditions. Due to heat transfer from the water exhaust temperatures will be approximately 5 degrees warmer than ambient temperature.

⁽²⁾ Listed air flow represents exhaust from each of the 4 cells of the tower.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: Existing Compression Ignition Engines < 400 BHP

Associated Equipment

Table: Existing Compression Ignition Engines ⁽¹⁾

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Construction Date |
|------------------------------|--|---|-----------------------------|--------------------------|
| EP-259 | EU-259 | Lied Emergency Generator | 40 | 05/11/1990 |
| EP-292 | EU-292 | Buchanan Hall Emergency Generator | 10 | 08/01/2003 |
| EP-297 | EU-297 | Helser Hall Emergency Generator | 20 | 12/01/1981 |
| EP-366 | EU-366 | Design College Emergency Generator | 241 | 01/01/1974 |
| EP-373 | EU-373 | Admin. Services Emergency Generator | 322 | 01/01/1997 |
| EP-411 | EU-411 | Eaton Hall Emergency Generator | 168 | 07/01/2002 |
| EP-419 | EU-419 | Carver Co-Lab Emergency Generator | 161 | 01/01/2003 |
| EP-465 | EU-465 | Pearson Emergency Generator | 207 | 06/01/2003 |
| EP-473 | EU-473 | Martin Hall Emergency Generator | 168 | 07/01/2004 |
| EP-510 | EU-510 | UV Emergency Generator | 51 | 01/01/2006 |
| EP-524 | EU-524 | Oak Hall (Formerly Larch) Emergency Generator | 241 | 07/01/1999 |
| EP-526 | EU-526 | ASC I Emergency Generator | 241 | 11/10/1987 |

⁽¹⁾ All engines listed are diesel-fueled emergency generators, less than 400 bhp and exempt from construction permitting

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40 %

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. 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

- A. 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)

NSPS and NESHAP Requirements

NESHAP:

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). According to 40 CFR 63.6590(a)(1)(ii) these compression ignition emergency engines, located at a major source, are existing stationary RICE as they were 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.

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(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 and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

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

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

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: New Compression Ignition Engines < 400 BHP

Associated Equipment

Table: New Compression Ignition Engines < 400 BHP ⁽¹⁾

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Displacement (L/cyl) | Construction Date |
|------------------------------|--|---|-----------------------------|-----------------------------|--------------------------|
| EP-532 | EU-532 | Hach Hall Emergency Generator | 373 | 1.48 | 10/21/2008 |
| EP-533 | EU-533 | Vet Med Pumphouse Emergency Generator | 398 | 1.47 | 7/14/2009 |
| EP-535 | EU-535 | Music Hall Emergency Generator | 80 | 0.60 | 3/2/2010 |
| EP-537 | EU-537 | Communication Building 2 Emergency Generator | 315 | 1.13 | 9/10/2010 |
| EP-539 | EU-539 | Hilton Coliseum 2 Emergency Generator | 274 | 1.10 | 10/04/2010 |
| EP-587 | EU-587 | Heady Hall Exterior Emergency Generator | 49 | 0.61 | 9/10/2010 |
| EP-621 | EU-621 | VMRI Bldg.35 Emergency Generator | 49 | 0.60 | 03/01/2011 |
| EP-622 | EU-622 | Curtiss Hall Student Services Emergency Generator | 279 | 1.12 | 07/28/2011 |
| EP-623 | EU-623 | Horticulture/Troxel Hall Emergency Generator | 98 | 1.10 | 03/19/2012 |
| EP-624 | EU-624 | Wallace Wilson Fire System Emergency Generator | 389 | 1.45 | 04/11/2012 |
| EP-630 | EU-630 | VMRI BSL3 Bldg 46 Emergency Generator #2 | 237 | 1.13 | 12/28/2012 |
| EP-631 | EU-631 | VMRI Freezer Bldg #62 Emergency Generator | 315 | 1.13 | 07/16/2013 |
| EP-649 | EU-649 | EHSSB Emergency Generator | 198 | 1.12 | 08/01/2015 |
| EP-657 | EU-657 | Forker Bldg Emergency Generator | 131 | 1.13 | 05/28/2015 |
| EP-689 | EU-689 | Geoffroy Hall Emergency Generator | 398 | 1.47 | 12/07/2015 |
| EP-709 | EU-709 | Bessey Addition Emergency Generator | 398 | 1.45 | 09/09/2016 |
| EP-711 | EU-711 | ATRB Emergency Generator | 331 | 1.2 | 06/01/2016 |

⁽¹⁾ All engines listed are diesel-fueled emergency generators with a rated capacity of less than 400 bhp, and exempt from construction permitting

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40 %

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. 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

- A. 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)

NSPS and NESHAP Requirements

NESHAP Subpart ZZZZ:

These emergency engines are subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) these compression ignition emergency engines, located at a major source, are new stationary RICE as they were constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(6), these emergency engines must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines. No further requirements apply for these emergency engines under subpart ZZZZ.

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

NSPS Subpart IIII:

Emission Standards (for engines with displacement (L/cyl) < 10):

According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

| EP | Max. Engine Power (bhp) | Model Year | NMHC + NO _x | CO | PM | Opacity | Rule Ref |
|--------|-------------------------|------------|------------------------|-----------|-------------|---------|----------|
| EP-532 | 373 | 2008 | 4.0 (3.0) | 3.5 (2.6) | 0.20 (0.15) | (1) | (2) |
| EP-533 | 398 | 2009 | | | | | |
| EP-535 | 80 | 2009 | 4.7 (3.5) | 5.0 (3.7) | 0.40 (0.30) | | |
| EP-537 | 315 | 2010 | 4.0 (3.0) | 3.5 (2.6) | 0.20 (0.15) | | |
| EP-539 | 274 | 2010 | | | | | |
| EP-587 | 49 | 2010 | 7.5 (5.6) | 5.5 (4.1) | 0.30 (0.22) | | (3) |
| EP-621 | 49 | 2010 | | | | | |
| EP-622 | 279 | 2010 | 4.0 (3.0) | 3.5 (2.6) | 0.20 (0.15) | | |
| EP-623 | 98 | 2012 | 4.7 (3.5) | 5.0 (3.7) | 0.40 (0.30) | | |
| EP-624 | 389 | 2012 | 4.0 (3.0) | 3.5 (2.6) | 0.20 (0.15) | | (2) |
| EP-630 | 237 | 2012 | | | | | |
| EP-631 | 315 | 2013 | | | | | |
| EP-649 | 198 | 2015 | | | | | |
| EP-657 | 131 | 2015 | | | | | |
| EP-689 | 398 | 2016 | 4.0 (3.0) | 3.5 (2.6) | 0.20 (0.15) | | |
| EP-709 | 398 | 2017 | | | | | |
| EP-711 | 331 | 2016 | | | | | |

⁽¹⁾ Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.

⁽²⁾ 40 CFR 89.112 and 40 CFR 89.113.

⁽³⁾ Table 2 to Subpart IIII and 40 CFR 1039.105.

Fuel Requirements (if using diesel):

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

Compliance Requirements:

1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
 - a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
 - b) Changing only those emission-related settings that are permitted by the manufacturer; and
 - c) Meeting the requirements of 40 CFR 89, 94 and/or 1068, as they apply to you.
2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).
3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

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

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

Operating and Recordkeeping Requirements

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

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

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

3. The engine may be operated for the purpose of maintenance checks and readiness testing, emergency demand response, and deviation of voltage or frequency for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or non-emergency demand response or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

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

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: See Table: Existing 4-Stroke Rich Burn Spark Ignition < 400 BHP

Associated Equipment

Table: Existing 4-Stroke Rich Burn Spark Ignition < 400 BHP ⁽¹⁾

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Construction Date |
|------------------------------|--|---|-----------------------------|--------------------------|
| EP-270 | EU-270 | Agronomy Greenhouse Emergency Generator | 60 | 01/01/1985 |
| EP-271 | EU-271 | Durham Emergency Generator | 268 | 01/01/1989 |
| EP-272 | EU-272 | Food Sciences Emergency Generator | 52 | 01/01/1991 |
| EP-273 | EU-273 | Gilman Hall Emergency Generator | 40 | 01/01/1991 |
| EP-277 | EU-277 | LeBaron Hall Emergency Generator | 201 | 01/01/1992 |
| EP-278 | EU-278 | Meats Lab. # 1 Emergency Generator | 40 | 01/01/1992 |
| EP-279 | EU-279 | Meats Lab. # 2 Emergency Generator | 40 | 01/01/1992 |
| EP-282 | EU-282 | Research Park Emergency Generator | 47 | 01/01/1995 |
| EP-284 | EU-284 | Science 2 Emergency Generator | 13 | 01/01/1972 |
| EP-286 | EU-286 | Town Eng. Emergency Generator | 17 | 01/01/1970 |
| EP-287 | EU-287 | Vet Med Research Institute # 40 Emergency Generator | 114 | 01/01/1989 |
| EP-290 | EU-290 | Barton Hall Emergency Generator | 5 | 08/01/1981 |
| EP-291 | EU-291 | Birch-Welch-Roberts Emergency Generator | 14 | 08/01/1981 |
| EP-294 | EU-294 | Freeman Hall Emergency Generator | 5 | 12/01/1981 |
| EP-296 | EU-296 | Friley Hall South Emergency Generator | 13 | 06/01/1983 |
| EP-302 | EU-302 | Lyon Hall Emergency Generator | 5 | 12/01/1981 |
| EP-374 | EU-374 | Olsen Building Emergency Generator | 20 | 11/03/1995 |
| EP-395 | EU-395 | Linden Hall Emergency Generator | 132 | 03/15/2000 |
| EP-407 | EU-407 | Gilman Emergency Generator | 40 | 01/01/2001 |
| EP-410 | EU-410 | Olsen/Bergstrom Emergency Generator | 40 | 01/01/2004 |
| EP-433 | EU-433 | Gerdin Emergency Generator | 27 | 01/01/2001 |
| EP-472 | EU-472 | Reiman Gardens Emergency Generator | 46 | 01/01/2002 |

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Construction Date |
|------------------------------|--|---|-----------------------------|--------------------------|
| EP-522 | EU-522 | Memorial Union Emergency Generator | 11 | 07/01/2008 |
| EP-523 | EU-523 | UDCC Emergency Generator | 65 | 06/01/2003 |
| EP-639 | EU-639 | Knapp Storms Dining Complex Emergency Generator | 10 | 01/01/1970 |

⁽¹⁾ All engines listed are natural gas-fueled emergency generators, less than 400 bhp, and exempt from construction permitting.

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40 %

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

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

Operational Limits & Requirements

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

NSPS and NESHAP Requirements

NESHAP Subpart ZZZZ:

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). According to 40 CFR 63.6590(a)(1)(ii) these spark ignition emergency engine, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of subpart ZZZZ that are applicable by October 19, 2013.

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)
2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, 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 and emergency demand response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

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

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

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: New Spark Ignition Emergency Engines < 400 BHP

Associated Equipment

Table: New Spark Ignition Emergency Engines⁽¹⁾

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (bhp) | Date of Construction |
|------------------------------|--|--|-----------------------------|-----------------------------|
| EP-536 | EU-536 | Vet Med Field Services Emergency Generator | 44 | 7/28/2010 |
| EP-647 | EU-647 | Ross Hall Emergency Generator | 22.5 | 06/02/2015 |
| EP-702 | EU-702 | Friley Hall North Emergency Generator | 30 | 09/07/2016 |

⁽¹⁾ These engines are natural gas-fired emergency generators, less than 50 bhp and exempt from construction permitting.

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 (SO₂)

Emission Limit(s): 500 ppmv

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

Operational Limits & Requirements

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

NSPS and NESHAP Requirements

NESHAP Subpart ZZZZ:

The emergency engines are subject to 40 CFR Part 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(2)(ii) these spark ignition emergency engine, located at a major source, are new stationary RICE as they were constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(6), these emergency engines must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ for spark ignition engines. No further requirements apply for this engine under subpart ZZZZ.

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

NSPS Subpart JJJJ:

Emission Standards (40 CFR 60.4233(d) and Table 1 to Subpart JJJJ):

| Emission Standards (g/HP-hr)⁽¹⁾ | |
|---|-----------|
| HC + NOx | CO |
| 10 | 387 |

⁽¹⁾ Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

Compliance Demonstrations:

1. You must demonstrate compliance with the emission standards according to one of following methods (40 CFR 60.4243(b)):
 - a) Purchasing a certified engine that complies with the emission standards, or
 - b) Purchasing a non-certified engine and demonstrating compliance with the emission standards. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct performance tests to demonstrate compliance in accordance with 40 CFR 60.4244. Owners and operators are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 4243(b) for additional information.

| Initial Test | Subsequent Test |
|---------------------|------------------------|
| Required | Not required |

2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer's written instructions must keep records of required maintenance. 40 CFR 60.4243(b)(1), 4243(a) and 4245(a)(2).
3. Owners and operators of natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, a performance test must be conducted to demonstrate compliance with the emission standards. 40 CFR 60.4243(e).
4. If you are an owner or operator of engine ≤ 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing, but you are not required to conduct subsequent performance testing unless the engine is rebuilt or undergoes major repair or maintenance. 40 CFR 60.4243(f).
5. Owners and operators of certified engines must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).

6. Owners and operators of non-certified engines or certified engines operating in a non-certified manner must keep documentation that these engines meet the applicable emission standards. 40 CFR 60.4245(a)(4).

Operating and Recordkeeping Requirements (40 CFR 4243(d))

1. Owners and operators of the following emergency SI engines that do not meet the applicable standards for non-emergency engines must install a non-resettable hour meter. 40 CFR 60.4237.

| Maximum Engine Power | Engine Was Built On Or After |
|----------------------|------------------------------|
| HP < 130 | 7/1/2008 |

2. The engine may be operated for the purpose of maintenance checks and readiness testing a maximum of 100 hours/year. There is no time limit on use for emergency situations.
3. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing.
4. Owners and operators of an emergency engine must keep records of all operation of the engine. The owner must record the date and time of operation of the engine and the reason the engine was in operation.
5. Owners and operators of the following emergency SI that does not meet the applicable standards for a non-emergency engine must keep the following records. 40 CFR 60.4245(b).

| Maximum Engine Power | Manufactured On Or After | Recordkeeping Requirement |
|----------------------|--------------------------|---|
| 25 < HP < 130 | 7/1/2008 | Hours of operation recorded through a non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. |

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

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: See Table: Exempt Boilers

Associated Equipment

Table: Exempt Boilers ⁽¹⁾

| Emission Point Number | Associated Emission Unit Number | Emission Unit Description | Rated Capacity (MMBtu) |
|------------------------------|--|---|-------------------------------|
| EP-202 | EU-202 | Livestock Infectious Disease Isolation Facility Boiler #1 | 4.00 |
| EP-321 | EU-321 | Vet Medical Research Institute #1 Boiler | 2.45 |
| EP-378 | EU-378 | Livestock Infectious Disease Isolation Facility Boiler #3 | 3.30 |
| | EU-379 | Livestock Infectious Disease Isolation Facility Boiler #2 | 3.30 |
| | EU-392 | Livestock Infectious Disease Isolation Facility Boiler #4 | 3.30 |
| EP-420 | EU-420 | Carver Co-Lab Boiler #1 | 2.04 |
| | EU-421 | Carver Co-Lab Boiler #2 | 2.04 |
| | EU-422 | Carver Co-Lab Boiler #3 | 2.04 |
| | EU-423 | Carver Co-Lab Boiler #4 | 2.04 |
| EP-504 | EU-504 | Carver Co-Lab Boiler #5 | 2.04 |
| EP-598 | EU-598 | Olsen Boiler # 1 | 3.00 |
| EP-599 | EU-599 | Olsen Boiler # 2 | 3.00 |
| EP-602 | EU-602 | VMRI Bldg 40 Boiler # 1 | 2.093 |
| EP-603 | EU-603 | VMRI Bldg 40 Boiler # 2 | 2.093 |
| EP-628 | EU-628 | Applied Science Center I Boiler #1 | 5.025 |
| EP-629 | EU-629 | Applied Science Center I Boiler #2 | 5.025 |
| EP-637 | EU-637 | Bergstrom Boiler #1 | 2.00 |
| EP-638 | EU-638 | Bergstrom Boiler #2 | 2.00 |
| EP-691 | EU-691 | Geoffroy Hall Boiler #1 | 3.00 |
| EP-692 | EU-692 | Geoffroy Hall Boiler #2 | 3.00 |
| EP-693 | EU-693 | Geoffroy Hall Boiler #3 | 3.00 |
| EP-694 | EU-694 | Geoffroy Hall Boiler #4 | 3.00 |
| EP-716 | EU-716 | Lied Rec Center Boiler #1 | 3.00 |
| EP-717 | EU-717 | Lied Rec Center Boiler #2 | 3.00 |
| EP-718 | EU-718 | Lied Rec Center Boiler #3 | 3.00 |
| EP-719 | EU-719 | Lied Rec Center Boiler #4 | 3.00 |

⁽¹⁾ All boilers are natural gas-fired, existing boilers, with maximum capacities between 1.6 and 10 MMBtu/hr, and exempt from construction permitting.

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.6 lbs/MMBtu

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm

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

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

NSPS and NESHAP Requirements

NESHAP Subpart DDDDD:

These boilers are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters [40 CFR Part 63 Subpart DDDDD]

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

IV. Facility Description and Equipment List- Power Plant

Equipment List

| Emission Point Number | Emission Unit Number | Emission Unit Description | DNR Construction Permit Number |
|-----------------------|----------------------|--|--------------------------------|
| EP-1 | EU-1 | CFB Ash Transport | 86-A-139 |
| EP-2 | EU-2 | Ash Storage Silo | 86-A-140 |
| EP-3 | EU-3 | Truck Loading-Dry Ash | NA |
| EP-4 | EU-4 | Wet Mixer | NA |
| EP-5 | EU-5 | Truck Loading-Wet Ash | 86-A-141 |
| EP-20 | EU-20 | Front End Loader Operations | 86-A-129 |
| EP-21 | EU-21 | Crushers/Conveyors and Transfer | 86-A-132 |
| EP-22 | EU-22A | Drag Chain 2A | 86-A-133 |
| | EU-22B | Drag Chain 2B | 86-A-134 |
| | EU-22C | Silo 1 Loading | 86-A-135 |
| | EU-22D | Silo 2 Loading | 86-A-138-S1 |
| | EU-22E | Silo 3 Loading | 86-A-136 |
| EP-40 | EU-40A | Truck Unloading | 86-A-130 |
| | EU-40B | Front End Loader Reclaim | 86-A-131 |
| | EU-40C | Wind Erosion | NA |
| EP-80 | EU-80 | Vacuum System | 99-A-853 |
| EP-90 | EU-90 | Vehicle Traffic | DNR 12/8/1986 Permit |
| EP-100 | EU-100 | Electric Power Generation | 99-A-732 |
| EP-101 | EU-101 | Bin Vent Filter | 13-A-308 |
| EP-102 | EU-102 | Equipment Losses (Five S and C Vista Switches) | 13-A-309-P |
| EP-S | EU-B1 | Circulating Fluidizer Bed Boiler #1 | 07-A-923-P5 |
| | EU-B2 | Circulating Fluidizer Bed Boiler #2 | |
| EP-B8 | EU-B8 | Boiler 8 Stack | 13-A-302-P |
| EP-B9 | EU-B9 | Boiler 9 Stack | 13-A-303-P |
| EP-B10 | EU-B10 | Boiler 10 Stack | 13-A-304-P |
| EP-T1 | EU-T1 | Fuel Oil Tank Vent 1 | 13-A-306 |
| EP-T2 | EU-T2 | Fuel Oil Tank Vent 2 | 13-A-307 |

Insignificant Activities Equipment List – Power Plant

| Insignificant Emission Unit Number | Insignificant Emission Unit Description |
|------------------------------------|---|
| EU-10A | Truck Unloading-Pneumatic |
| EU-70 | Cooling Tower |
| EU-71 | Solvent Parts Washer |
| EU-75 | Maintenance Welding |

V. Emission Point Specific Conditions - Power Plant

Emission Point ID Number: EP-1

Associated Equipment

Associated Emission Unit ID Numbers: EU-1

Emissions Control Equipment ID Number: CE-1A and CE-1B

Emissions Control Equipment Description: Centrifugal Separator and Pulse Jet Baghouse

Emission Unit vented through this Emission Point: EU-1

Emission Unit Description: CFB Ash Transport

Raw Material/Fuel: Fly Ash

Rated Capacity: 20 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 0% at the exhaust

Authority for Requirement: DNR Construction Permit 86-A-139

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 9.37 tons/yr

Authority for Requirement: DNR Construction Permit 86-A-139
567 IAC 23.3(2)"a"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Reporting & Record keeping

- A. Excess opacity must be reported to the Iowa DNR orally and in writing per 567 IAC 24.1(455B)

Authority for Requirement: DNR Construction Permit 86-A-139

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0%) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits

Authority for Requirement: 567 IAC 22.108(14)

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-2

Associated Equipment

Associated Emission Unit ID Numbers: EU-2
Emissions Control Equipment ID Number: CE-2
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: EU-2
Emission Unit Description: Ash Storage Silo
Raw Material/Fuel: Ash
Rated Capacity: 20 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 0% at the exhaust
Authority for Requirement: DNR Construction Permit 86-A-140

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr/dscf; 0.15 tons/yr
Authority for Requirement: DNR Construction Permit 86-A-140
567 IAC 23.3(2)"a"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Reporting & Record keeping

- A. Excess opacity must be reported to the Iowa DNR orally and in writing per 567 IAC 24.1(455B)

Authority for Requirement: DNR Construction Permit 86-A-140

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0%) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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-3

Associated Equipment

Associated Emission Unit ID Numbers: EU-3

Emission Unit vented through this Emission Point: EU-3
Emission Unit Description: Truck Loading - Dry Ash
Raw Material/Fuel: Ash
Rated Capacity: 20 tons/hr

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

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-4

Associated Equipment

Associated Emission Unit ID Numbers: EU-4

Emission Unit vented through this Emission Point: EU-4

Emission Unit Description: Wet Mixer

Raw Material/Fuel: Ash

Rated Capacity: 20 tons/hr

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

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-5

Associated Equipment

Associated Emission Unit ID Numbers: EU-5
Emissions Control Equipment ID Number: CE-5
Emissions Control Equipment Description: Wet Ash Mixer

Emission Unit vented through this Emission Point: EU-5
Emission Unit Description: Truck Loading - Wet Ash
Raw Material/Fuel: Ash
Rated Capacity: 20 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 20%⁽¹⁾

Authority for Requirement: DNR Construction Permit 86-A-141
567 IAC 23.3(2)"d"

⁽¹⁾No visible emissions at the property line.

Pollutant: Particulate Matter (PM)

Emission Limit(s): 4.51 tons/yr

Authority for Requirement: DNR Construction Permit 86-A-141

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 20%) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If

all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required?* Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

* Facility Maintained Fugitive Dust Control Plan (for no visible emissions at the property line)

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

The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practices.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-20

Associated Equipment

Associated Emission Unit ID Numbers: EU-20

Emission Unit vented through this Emission Point: EU-20
Emission Unit Description: Front End Loader Operations
Raw Material/Fuel: Coal
Rated Capacity: 150 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 20%⁽¹⁾

Authority for Requirement: DNR Construction Permit 86-A-129
567 IAC 23.3(2)"d"

⁽¹⁾No visible emissions at the property line.

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.776 tons/yr

Authority for Requirement: DNR Construction Permit 86-A-129

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 20%) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required?* Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

* Facility Maintained Fugitive Dust Control Plan (for no visible emissions at the property line)

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

The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution practice.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-21

Associated Equipment

Associated Emission Unit ID Numbers: EU-21

Emissions Control Equipment ID Number: CE-21

Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: EU-21

Emission Unit Description: Crushers/Conveyors and Transfer

Raw Material/Fuel: Coal

Rated Capacity: 150 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 0% at the exhaust; less than 5% opacity from the pickup points

Authority for Requirement: DNR Construction Permit 86-A-132

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.01 gr./dscf; 0.206 tons/yr

Authority for Requirement: DNR Construction Permit 86-A-132

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>5 %) at the pickup points or (> 0%) from the exhaust is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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-22

Associated Equipment

Table: Drag Chains and Silo Loading

| Associated Emission Unit Number | Emission Unit Description | Rated Capacity (tons/hr) | Raw Material/Fuel | Control Equipment Description (ID) |
|---------------------------------|---------------------------|--------------------------|-------------------|-------------------------------------|
| 22A | Drag Chain 2A | 150 | Coal | Pulse Jet Bag Filter (CE-22A) |
| 22B | Drag Chain 2B | 150 | Coal | Pulse Jet Bag Filter (CE-22B) |
| 22C | Coal Silo 1 Loading | 150 | Coal | Pulse Jet Bag Filter (CE-22C) |
| 22D | Limestone Silo 2 Loading | 200 | Limestone | Pulse Jet Cartridge Filter (CE-22D) |
| 22E | Coal Silo 3 Loading | 150 | Coal | Pulse Jet Bag Filter (CE-22E) |

Applicable Requirements

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

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

Table: Drag Chains and Silo Loading Emission Limits

| EU | Opacity | PM (gr/dscf) | PM | Iowa DNR Construction Permit (Authority for Requirement) |
|-----|---------------------------------------|--------------------|---------------|--|
| 22A | 0% at exhaust; <5% from pickup points | 0.01 | 0.377 tons/yr | 86-A-133 ⁽⁴⁾ |
| 22B | 0% at exhaust; <5% from pickup points | 0.01 | 0.377 tons/yr | 86-A-134 ⁽⁴⁾ |
| 22C | 0% at exhaust; <5% from pickup points | 0.01 | 0.131 tons/yr | 86-A-135 |
| 22D | 0% ⁽¹⁾⁽²⁾ | 0.1 ⁽³⁾ | 0.171 lb/hr | 86-A-138-S1 ⁽⁴⁾ |
| 22E | 0% at exhaust; <5% from pickup points | 0.01 | 0.131 tons/yr | 86-A-136 |

⁽¹⁾ Authority for Requirement: 567 IAC 23.3(2)"d"

⁽²⁾ 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).

⁽³⁾ Authority for Requirement: 567 IAC 23.3(2)"a"

⁽⁴⁾ PSD Permit 86-A-138 was modified by the Iowa DNR to revise the PM limit. This revised limit, in conjunction with the removal of the source permitted as 86-A-137 and the ability to run only one of the two sources (86-A-133 and 86-A-134) at a time, remains insignificant for PSD.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

- A. The operator shall inspect and maintain the control equipment according to manufacturer's specifications.

Reporting and Recordkeeping

- A. The operator shall keep records of baghouse inspections and maintenance.
Authority for Requirement: DNR Construction Permit 86-A-138-S1 (EU 22D)

Emission Point Characteristics (EU-22D)

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): Vents Inside

Stack Opening, (inches, dia.): 17 × 8

Exhaust Flow Rate (scfm): 2,000

Exhaust Temperature (°F): Ambient (70)

Discharge Style: Vents Inside

Authority for Requirement: DNR Construction Permit 86-A-138-S1

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

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective

action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 5%) from the pickup points or (> 0%) from the exhaust is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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-40

Associated Equipment

Table: Coal Storage Pile

| Associated Emission Unit Number | Emission Unit Description | Rated Capacity | Raw Material/Fuel | Control Equipment Description (ID) |
|---------------------------------|--|----------------|-------------------|------------------------------------|
| 40A | Coal Storage Pile-Truck Unloading | 100 tons/hr | Coal | - |
| 40B | Coal Storage Pile-Front End Loader Reclaimer | 100 tons/hr | Coal | - |
| 40C | Coal Storage Pile-Wind Erosion | 1.194 Acres | Coal | Water Spray (CE-40C) |

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.

Table: Drag Chains and Silo Loading Emission Limits

| EU | Opacity | PM (tons/yr) | Iowa DNR Construction Permit (Authority for Requirement) |
|-----|--|--------------|--|
| 40A | 20%, No visible emissions at property line | 0.245 | 86-A-130 |
| 40B | 20%, No visible emissions at property line | 0.140 | 86-A-131 |
| 40C | NA | NA | NA |

Monitoring Requirements

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

The facility shall check the opacity weekly during a period when the emission units (EU 40A and 40B) on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 20%) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an

opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required?* Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

* Facility Maintained Fugitive Dust Control Plan (for no visible emissions at the property line)

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

The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-80

Associated Equipment

Associated Emission Unit ID Numbers: EU-80

Emissions Control Equipment ID Number: CE-80A and CE-80B

Emissions Control Equipment Description: Cyclone and Fabric Filter

Emission Unit vented through this Emission Point: EU-80

Emission Unit Description: Central Vacuum System

Raw Material/Fuel: Coal

Rated Capacity: 350 scfm

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: DNR Construction Permit 99-A-853
567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr./dscf

Authority for Requirement: DNR Construction Permit 99-A-853
567 IAC 23.3(2)"a"(1)

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

- A. Maintain Primary CE-80A (High Efficiency Cyclone) and Secondary Separator CE-80B (Fabric Filter) according to manufacturer specifications and maintenance schedule.

Reporting and Recordkeeping

A. Record on a monthly basis all maintenance (if any) of Primary CE-80A and Secondary CE-80B.

Authority for Requirement: DNR Construction Permit 99-A-853

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 6.5

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 350

Exhaust Temperature (°F): Ambient (70)

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 99-A-853

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-90

Associated Equipment

Associated Emission Unit ID Numbers: EU-90
Emissions Control Equipment ID Number: CE-90
Emissions Control Equipment Description: Water Spray

Emission Unit vented through this Emission Point: EU-90
Emission Unit Description: Vehicle Traffic
Raw Material/Fuel: Road Dust
Rated Capacity: 3,534 VMT

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): No Visible emissions at the property line
Authority for Requirement: Iowa DNR Permit December 8, 1986

Pollutant: Particulate Matter (PM)
Emission Limit(s): 11.76 tons/yr
Authority for Requirement: Iowa DNR Permit December 8, 1986

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
For emissions at the property line.

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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

The data pertaining to the plan must be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-100

Associated Equipment

Associated Emission Unit ID Numbers: EU-100

Emission Unit vented through this Emission Point: EU-100

Emission Unit Description: Electrical Power Generation (Portable Generator)

Raw Material/Fuel: Diesel

Rated Capacity: 535 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%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 99-A-732
567 IAC 23.3(2)"d"

⁽¹⁾An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 99-A-732
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Pollutant: Nitrogen Dioxide (NO_x)

Emission Limit(s): 39.4 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 99-A-732

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

- A. The diesel generator shall use #1 or #2 diesel fuel only.
- B. The diesel generator shall be limited to 125,000 gallons of fuel per twelve month period rolled monthly.
- C. The diesel fuel shall have a sulfur content not to exceed 0.5% by weight

Recordkeeping

- A. Records shall indicate the following:
 - 1. The type of diesel used.
 - 2. The quantity of diesel used per twelve month period rolled monthly
 - 3. The sulfur content of the diesel fuel.

Authority for Requirement: Iowa DNR Construction Permit 99-A-732

NSPS and NESHAP Requirements

NESHAP Subpart ZZZZ:

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)(i) this emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to December 19, 2002.

According to 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements.

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

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 11

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 2103

Exhaust Temperature (°F): 903

Authority for Requirement: DNR Construction Permit 99-A-732

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-101

Associated Equipment

Associated Emission Unit ID Numbers: EU-101
Emissions Control Equipment ID Number: CE-101
Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: EU-101
Emission Unit Description: Lime Storage Tank (Dry Sorbet Silo)
Raw Material/Fuel: Hydrated Lime
Rated Capacity: 127 ton capacity, 0.8 ton/hr throughput

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 13-A-308
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.03 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 13-A-308

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 13-A-308
567 IAC 23.3(2)"a"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

- A. Operate and maintain the control equipment according to the manufacturer's recommendations.

Recordkeeping

A. Record any maintenance and repair activates performed on the control equipment.

Authority for Requirement: Iowa DNR Construction Permit 13-A-308

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 110

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 1,025

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 13-A-308

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-102

Associated Equipment

Associated Emission Unit ID Numbers: EU-102

Emission Unit vented through this Emission Point: EU-102

Emission Unit Description: Equipment Losses (Five S and C Vista Switches)

Raw Material/Fuel: Sulfur hexafluoride

Rated Capacity: Two 15kV and Three 5kV

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.

This emission point has no emission limits at this time.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

- A. Operate and maintain these units to minimize emissions of SF₆.
- B. Develop and implement a written leak detection and repair (LDAR) program for switches containing SF₆.

Recordkeeping

- A. Maintain a record of any SF₆ replenished in these units.
- B. Record the results of the LDAR program.

Authority for Requirement: Iowa DNR Construction Permit 13-A-309-P

Monitoring Requirements

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

| | | |
|---|------------------------------|--|
| Agency Approved Operation & Maintenance Plan Required? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Facility Maintained Operation & Maintenance Plan Required? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Compliance Assurance Monitoring (CAM) Plan Required? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-S

Associated Equipment

| Associated Emissions Unit ID | Emission Unit Description | Emission Control Equipment Description and ID | | Continuous Emissions Monitors ID Numbers | | Raw Material / Fuel | Rated Capacity (MMBtu/hr) |
|------------------------------|---------------------------|---|--------------------------------|--|-----|---------------------|---------------------------|
| EU-B1 | Boiler #1 | Baghouse 1 (CE-BGH1) | Dry Sorbent Injection (CE-DSI) | N1, S1, OP1, C1 | OPS | Coal | 235 |
| EU-B2 | Boiler #2 | Baghouse 2 (CE-BGH2) | | N2, S2, OP2, C2 | | Coal | 235 |

Applicable Requirements

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

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

BACT Emission Limits when Burning Iowa Coal, or Equivalent:

The following BACT emission limits apply to Boilers 1 (EU-B1) and 2 (EU-B2) at all times except during periods of startup, shutdown and malfunction.

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 1.0 lb/MMBtu⁽¹⁾; 90% Reduction⁽¹⁾⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.40 lb/MMBtu⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 34.03 lb/hr⁽³⁾⁽⁵⁾; 0.145 lb/MMBtu⁽³⁾; 200 ppm⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Lead (Pb)

Emission Limit(s): 0.366 lb/hr⁽⁴⁾⁽⁵⁾; 0.0015 lb/MMBtu⁽⁴⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Fluorides (F)

Emission Limit(s): 9.124 lb/hr⁽³⁾⁽⁵⁾; 0.039 lb/MMBtu⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Beryllium (Be)

Emission Limit(s): 0.148 lb/hr⁽⁴⁾⁽⁵⁾; 0.00063 lb/MMBtu⁽⁴⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

⁽¹⁾The standard is a 30-day rolling average.

⁽²⁾This is a reduction of the potential SO₂ emission rate. The *Potential SO₂ emission rate* means the theoretical emissions (lb/MMBtu heat input) that would result from the combustion of coal in the boiler without SO₂ absorption.

⁽³⁾Standard is a 3-hour average.

⁽⁴⁾Standard is a 3-hour (minimum) average.

⁽⁵⁾Limit is for each boiler

BACT Emission Limits when Burning Low Sulfur Western Coal, or Equivalent:

For the purpose of this permit "low-sulfur western coal" mean "Rochelle coal" or its equivalent. The following BACT emission limits apply to Boilers 1 (EU-B1) and 2 (EU-B2) when burning low sulfur western coal.

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 0.2 lb/MMBtu⁽¹⁾; 60% Reduction⁽¹⁾⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.4 lb/MMBtu⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 0.145 lb/MMBtu⁽³⁾; 200 ppm⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Lead (Pb)

Emission Limit(s): 0.000016 lb/MMBtu⁽⁴⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Fluorides (F)

Emission Limit(s): 0.007 lb/MMBtu⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Beryllium (Be)

Emission Limit(s): 0.00000066 lb/MMBtu⁽⁴⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

⁽¹⁾The standard is a 30-day rolling average.

⁽²⁾This is a reduction of the potential SO₂ emission rate. The *Potential SO₂ emission rate* means the theoretical emissions (lb/MMBtu heat input) that would result from the combustion of coal in the boiler without SO₂ absorption.

⁽³⁾Standard is a 3-hour average.

⁽⁴⁾Standard is a 3-hour (minimum) average.

NSPS Emission Limits:

The following NSPS emission limits apply to Boilers 1 (EU-B1) and 2 (EU-B2).

Pollutant: Opacity

Emission Limit(s): 20%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

Pollutant: Particulate Matter-Federal (PM)

Emission Limit(s): 22 ng/J⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 260 ng/J⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): Emission limit is determined by the following formula:

$$Es = (KaHa + KbHb)/(Ha + Hb)$$

where: Es is the SO₂ emission limit (in either ng/J or lb/mmBTU heat input),

Ka is 520 ng/J or 1.2 lb/MMBtu,

Kb is 340 ng/J or 0.8 lb/ MMBtu,

Ha is the heat input from the combustion of coal (in either J or MMBtu, and

Hb is the heat input from the combustion of oil (in either J or MMBtu)

Only the heat input supplied from the combustion of coal and oil is counted. No credit is provided for the heat input from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input from other sources such as gas turbines, internal combustion engines, kilns, etc. This limit is a 30-day rolling average and applies at all times including periods of startup, shutdown, and malfunction.

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

⁽¹⁾Opacity shall not exceed 20% (6-minute average), except for one (1) 6-minute period per hour of not more than 27% opacity.

⁽²⁾22ng/J = 0.051 lb/MMBtu

⁽³⁾Per 40 CFR 60.44b(h) and 40 CFR 60.44(i), the limit is a 30-day rolling average that includes periods of startup, shutdown, and malfunction.

Additional Emission Limits:

Pollutant: Opacity

Emission Limit(s): 10%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit(s): 15.98 lb/hr⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 15.98 lb/hr⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 70 tpy⁽²⁾; 0.034 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 1.42 lb/MMBtu⁽³⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 188 lb/hr⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

⁽¹⁾Boilers 1 & 2 are each limited to 10%.

⁽²⁾Combined total allowed for Boilers 1 (EU-B1) and 2 (EU-B2).

⁽³⁾Limit set on Boilers 1 and 2 by EPA Region VII in its Prevention of Significant Deterioration (PSD) permit issued December 15, 1986. This limit is a rolling 3-hour average.

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limits

- A. Boilers 1 (EU-B1) & 2 (EU-B2) are restricted to coal, or a blend of coal and up to 15% clean wood by weight, with gas and/or oil start-up. As used in this permit, "coal" means the coal supply (or similar, Midwestern, coal supplies) which was used by EPA Region VII in setting the SO₂ BACT emission limitations of Emission Limits section above.
- B. Only Iowa coal (or its equivalent) or the Rochelle coal supply (or its equivalent), as reviewed and approved by EPA Region VII may be burned in Boilers 1 (EU-B1) & 2

- (EU-B2). Combinations of said fuels is not allowed without the prior approval of the Department and without the prior modification of Construction Permit 07-A-923-P5.
- C. The owner or operator must receive the Department's approval if the owner or operator wants to burn a fuel other than the coal listed in Condition A above on a continuous or trial basis. At that time, agency may impose BACT emission standards (including a SO₂ percent reduction requirement) for the other fuel types(s) in question even if an emissions reduction will occur. Other PSD related provisions (e.g. ambient air quality analyses) may also be imposed.
- D. The owner or operator shall notify the Department whenever the owner or operator changes from one approved coal fuel supply to another approved coal fuel supply on Boilers 1 (EU B1) & 2 (EU B2). Said notification shall be by letter, postmarked no later than two weeks (14 calendar days) after the date of the switch. The owner or operator is not required to notify the Department when starting or stopping combustion of coal/wood blends.
- E. After the initial compliance test on Boilers 1 (EU-B1) and 2 (EU-B2), the owner or operator shall collect a 24-hour representative coal sample. The coal sample shall meet the following conditions.
- a. The frequency shall be at least once every two (2) weeks and whenever the owner or operator changes the coal supply fired in either boiler.
 - b. Coal sampling and analyses (CSA) of the individual boilers is not required under this condition if the subject boiler is not operated during the two-week period or if the boiler is operated on a fuel other than coal.
 - c. Each composite sample shall meet the sampling requirements for special purpose sampling of ASTM D2234-76.
 - d. The composite sample collection classification shall meet Type 1, Condition A, B, or C, with systematic spacing, as defined by ASTM D2234-76.
 - e. The Composite sample shall be collected as closed to an "as-fired" condition as practicable.
 - f. The proposed location, sampling, and analytical collection methodology shall be submitted to and approved by the EPA regional office prior to operation of the herein-approved boilers.
 - g. For each low sulfur western coal sample (or equivalent) collected by the owner or operator as required above, the owner or operator shall obtain analyses of the Be, Pb, and F content within two (2) weeks of sample collection.
 - h. After a year of operation the PSD-approved boiler on the herein-approved low sulfur western coal, the owner or operator may request a revision of the elimination of the sampling frequency if a lesser frequency appears appropriate.
 - i. Of its own accord, the PSD permit reviewing authority may also revise the frequency and/or the CSA procedures of this condition if it determines that a revision is needed for purposes of verification of compliance with the Be, Pb, and/or F emission limits(s) of Operating Limit (BACT Emission Limits When Burning Iowa Coal, or Equivalent).
 - j. The Be, Pb, and F concentrations that are determined through the above sampling and analyses procedures shall serve as an indicator of probably compliance (or noncompliance) with the applicable BACT emission limit.

- k. When request to do so by the EPA regional office, the owner or operator shall at its own expense formally verify compliance through stack testing of boiler emissions with subsequent submittal of a report of the test.
- F. The owner or operator shall notify both the EPA Region VII and the Department whenever the owner or operator changes from one approved coal fuel supply to another approved coal fuel supply. The notification shall be by letter, postmarked no later than two weeks (14 calendar days) after the date of the switch. The owner or operator is not required to notify the Department when starting or stopping combustion of coal/wood blends.
- G. Boilers 1 (EU-B1) & 2 (EU-B2) are subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR 60.1-40 CFR 60.19) and Db (40 CFR 60.40b-40 CFR 60.49).
- H. To maintain Construction Permit Project 11-402 as a minor project for Prevention of Significant Deterioration (PDS), the owner or operator shall have the following requirements after starting combustion of the wood/coal blend permitted by Construction Permit Project 11-402:
 - a. A report to the department shall be submitted within 60 days after the end of the each year the annual emissions, in tons per year, from project 11-402 exceed the baseline actual emission by an amount that is "significant" as defined in IAC 567-33.3(1) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection. The report shall contain the following:
 - i. The name, address, and telephone number of the major station source;
 - ii. The annual emissions as calculated pursuant to IAC 567-33.3(18)"f"(4); and
 - iii. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction project).

Recordkeeping Requirements

- A. The owner or operator shall maintain records, on a daily basis, of the type(s) of fuel combusted in each of the boilers on that day.
- B. All applicable recordkeeping set forth in NSPS Subparts A (40 CFR 60.1 – 40 CFR 60.19) and Db (40 CFR 60.40b-40 CFR 60.49b) for Boilers 1 (EU-B1) & 2 (EU-B2).
- C. For the purpose of maintaining Project 11-402 as a minor project for Prevention of Significant Deterioration (PSD), the owner or operator shall have the following monitoring conditions for a period of (10) years from the date Boiler 1 and/or Boiler 2 (EU-B1 and EU-B2) begin combusting a wood/coal blend as permitted in this project as part of normal operations (i.e., not from the date of the test burn):
 - a. Record the date Boiler 1 (EU-B1) and/or Boiler 2 (EU-B2) starts combusting the wood/coal blend as permitted in this project.
 - b. Record annually the sum of the actual NO_x and CO_{2e} combined emissions from Boiler 1 and Boiler 2 (EU-B1 and EU-B2) in tons per year on a calendar-year basis. In addition, the owner or operator shall record the sum of the actual NO_x and CO_{2e} combined emission due only to the times that a wood/coal mixture was combusted in Boilers 1 and 2. Until July 21, 2014, carbon dioxide emissions due to the combustion of wood may be excluded from the CO_{2e} totals.

- c. Record annually the ton per year value of the actual combined emissions from Boiler 1 and Boiler 2 (EU-B1 and EU-B2) minus the baseline actual emissions for NOx and CO₂e.
- D. After the initial compliance test on Boilers (EU-B1) and (EU-B2), compliance with the applicable SO₂ or NO_x emission standards of this permit for Boilers 1 (EU-B1) and 2 (EU-B2) are based on the following verifications made by the owner or operator:
- a. The average hourly, rolling 3-hour [SO₂], daily, and 30-day rolling emission rates, and the 30-day rolling percent reduction [SO₂], shall be determined;
 - b. Each hourly emission average shall be the average of four 15-minute concentrations analyzed and recorded by the CEM during the hour;
 - c. Each 3-hour (or daily) average emission rate shall be determined by computing the arithmetic average of three (or 24) successive hourly emission rates. Each subsequent hour establishes a new 3-hour averaging period;
 - d. Each 30-day rolling average emission rate shall be calculated on a daily basis and shall be based on the arithmetic average of 30 successive boiler operating days as recorded by the CEM; e.g., 24 one-hour averages per daily average to be included in the previous 29 daily emission averages for a new 30-day rolling average;
 - e. Each 30-day rolling percent reduction [SO₂] shall be calculated on a daily basis, as in item d. above, using the data recorded by the CEMS and the daily fuel analysis obtained by daily coal analysis (outlined in Operating Limit E)

The PSD-implementing agency will consider revision, relaxation, or elimination of any requirement of Condition D if the owner or operator demonstrates to said agency's satisfaction that the change is justified.

- E. Compliance with the NO_x BACT emission limit shall take preference if difficulties are encountered in achieving simultaneous compliance with the CO and NO_x BACT emission limits. If such difficulties are encountered, the owner or operator may subsequently request a revision of the CO BACT emission limit.

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5

NSPS and NESHAP Applicability:

NSPS Subpart Db:

Boiler 1 and Boiler 2 are subject the New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60 Subpart Db; 567 IAC 23.1(2)"ccc") and the General Provisions of the NSPS (40 CFR 60 Subpart A; 567 IAC 23.1(2)).

Authority for Requirement: Iowa DNR Construction Permit 07-A-923-P5
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

NESHAP Subpart DDDDD:

Boiler 1 and Boiler 2 are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63 Subpart DDDDD) and the General Provisions of the NESHAP (40 CFR 63 Subpart A).

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 230

Stack Opening, (inches, dia.): 144

Exhaust Flow Rate (scfm): 119,529

Exhaust Temperature (°F): 300

Discharge Style: Vertical unobstructed

Authority for Requirement: DNR Construction Permit 07-A-923-P5

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

Monitoring Requirements

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

Stack Testing:

Pollutant – Federal Particulate Matter (PM) (Boilers 1 & 2)

Stack Test to be Completed by April 21, 2021

Test Method – 40 CFR Part 60, Appendix A, Method 5

Authority for Requirement: 567 IAC 22.108(3)

Pollutant – State Particulate Matter (PM) (Boilers 1 & 2)

Stack Test to be Completed by April 21, 2021

Test Method – 40 CFR Part 60, Appendix A, Method 5 and
40 CFR 51 Appendix M, Method 202

Authority for Requirement: 567 IAC 22.108(3)

Pollutant - Particulate Matter (PM₁₀) (Boilers 1 & 2)

Stack Test to be Completed by April 21, 2021

Test Method – 40 CFR 51, Appendix M, 201A with 202

Authority for Requirement: 567 IAC 22.108(3)

Pollutant - Particulate Matter (PM_{2.5}) (Boilers 1 & 2)

Stack Test to be Completed by April 21, 2021

Test Method – 40 CFR 51, Appendix M, 201A with 202

Authority for Requirement: 567 IAC 22.108(3)

Pollutant – Carbon Monoxide (CO) (Boilers 1 & 2)

Stack Test to be Completed by April 21, 2021

Test Method – 40 CFR Part 60, Appendix A, Method 10

Authority for Requirement: 567 IAC 22.108(3)

Continuous Emissions Monitoring:

Pollutant – Opacity

Monitoring Equipment Number: ME-OP1, ME-OP2, ME-OPS
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 04/22/2014, 04/24/2014, 6/17/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – DNR Construction Permit 07-A-923-P5

Pollutant – Nitrogen Oxides (NO_x)

Monitoring Equipment Number: ME-N1 and ME-N2
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 05/19/2010 and 11/29/2011
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – DNR Construction Permit 07-A-923-P5

Pollutant – Sulfur Dioxide (SO₂)

Monitoring Equipment Number: ME-S1 and ME-S2
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 05/19/2010 and 05/18/2010
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – DNR Construction Permit 07-A-923-P5

Pollutant – Carbon Dioxide (CO₂)

Monitoring Equipment Number: ME-C1 and ME-C2
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 05/19/2010 and 05/18/2010
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – DNR Construction Permit 07-A-923-P5

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

In accordance with 40 CFR §60.48b(a), the owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on Boilers 1 (EU B1) & 2 (EU B2), and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and

outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 1 (PS1).

The owner or operator shall install, calibrate, maintain, and operate continuous emission monitoring (CEM) systems, and record the output of the systems, for measurement of the SO₂, NO_x and oxygen (or carbon dioxide) emissions from Boilers 1 (EU B1) & 2 (EU B2). The oxygen (or carbon dioxide) content of the combustion gases shall be measured at each location where SO₂ and NO_x emissions are monitored. Each CEM shall be installed at a location acceptable to the PSD implementing agency.

Compliance with the SO₂ and NO_x emission standards of this permit for Boilers 1 (EU B1) & 2 (EU B2) shall be continuously demonstrated by the owner or operator through the use of the CEM system. All emission averages shall be the arithmetic average emission rate. The procedures under 40 CFR §60.13 shall be followed by the owner or operator with regard to installation, evaluation, and operation of the CEMS, and as required in this permit.

At all times while Boilers 1 (EU B1) & 2 (EU B2) are being operated, the CEMS installed pursuant to this permit shall be designed, installed, calibrated, maintained, operated, and qualified in accordance with 40 CFR Part 60, Appendix A and B, and as required by this permit.

Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, the CEMS shall be in continuous operation. Each SO₂ and NO_x CEM shall complete a minimum of one cycle of sampling, analyzing, and recording for each successive 15-minute period and one cycle of data reporting for each successive one-hour period. Each CEM shall continuously meet all the data recovery and performance requirements of this permit. Should the SO₂ or NO_x CEM fail to meet the applicable rolling 30-day data recovery requirements that are specified below (as calculated each day) for five consecutive days, the owner or operator shall within thirty (30) days of the end of the fifth period demonstrate that the CEM has complied with all the applicable provisions of this permit.

In order to ensure validation of all CEM compliance data, the owner or operator shall check the systems periodically to determine if the CEM readings are both accurate and precise. Quality assurance (QA) checks shall be done in accordance with a written quality control procedure, once daily, for each parameter monitored by assessing the precision and accuracy of the CEM data using at a minimum the manufacturer's recommended quality assurance procedures.

The daily checks shall involve those critical components of the instrument used in measuring the gas concentration of the effluent. All cleaning and adjustments shall be made in accordance with 40 CFR Part 60, Appendix B, and as recommended by the quality control plan.

Unless otherwise approved by the permit issuing agency, the selection of the SO₂ CEM span value (maximum data display output) shall be 200 percent of the nominal emission limit specified in this permit for that parameter. The span value for the NO_x CEM shall be 500 ppm.

In addition to the provisions of 40 CFR Part 60, Appendix B, the performance specifications applicable to the CEMS required by this permit shall include a data recovery requirement of 75 percent, and shall meet precision and accuracy requirements of 10 percent, and 10 percent of the applicable standard, respectively, unless otherwise specified in this permit. When the minimum SO₂ data requirements of this permit cannot be attained, the methods and procedures of 40 CFR §60.47a(h) shall be employed by the owner or operator to obtain the required data.

For the CEMS which continually monitor and record gaseous emissions of SO₂ or NO_x, the output (in units of the standard) of the specific CEMS will be continual evidence of compliance with the applicable permit emission limitations. Where data produced by the CEM and concurrent data produced pursuant to other methodologies differ for the same period of time, and both the CEMS and the conflicting data are collected in accordance with all applicable provisions and requirements of federal law, regulation, and this permit, the CEM data shall be the best and most probative evidence of compliance with applicable performance or emission standards of this permit.

Each CEM required under this permit shall meet all applicable provisions (as amended, as of the date of commencement of construction of the permitted boilers) of 40 CFR Part 60, Appendix B, Specifications No. 2 and 3, and related provisions of this permit. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

NOTE: A "boiler operating day" means each 24-hour period between midnight and the following midnight during which any fuel is combusted in the boiler. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

The PSD-implementing agency will consider revision, relaxation, or elimination of any requirement of this Continuous Emissions Monitoring section if the owner or operator demonstrates to said agency's satisfaction that the change is justified.

Authority for Requirement: DNR Construction Permit 07-A-923-P5

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan
For Pulse Jet Baghouses (CE-B1 and CE-B2)

I. Background

A. Emission Unit

Description: Boiler #1 and Boiler #2

Identification: EU-B1 and EU-B2

Facility: Iowa State University

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Iowa Construction Permit: 07-A-923-P5

Particulate Emission Limits: 0.034 lb/MMBtu, 22ng/J, 70 tons/yr for PM and 15.98 lb/hr for PM₁₀ and PM_{2.5}

II. Baghouse Monitoring Guidelines:

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

III. Monitoring Approach

| 1. Indicator | Opacity of Baghouse exhaust | Baghouse Pressure Drop. |
|--------------------|---|--|
| 2. Indicator Range | A CAM excursion occurs when the opacity exceeds 5% (hourly average) during normal operations. Periods of startup, shutdown, or cleaning of control equipment are excluded per 567 IAC 24.1(1). Excursions trigger an inspection, corrective action, and a reporting requirement. Corrective action will be implemented within eight (8) hours plus the period of time until replacement generating capacity is available to meet consumer demand. | A pressure drop outside the range of 1 inch of H ₂ O to 9 inches of H ₂ O would be a CAM excursion. Corrective action will be implemented on the occurrence of abnormal conditions. The appropriate remediation will be implemented within eight (8) hours plus the period of time until replacement generating capacity is available to meet consumer demand. |

| | | |
|---------------------------------------|---|--|
| 3. Performance Criteria | | |
| A. Data Representativeness | The COMs is installed at a representative location in the baghouse exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1). | A pressure drop of less than 1.0 inches of H ₂ O or greater than 9 inches of H ₂ O would indicate a decrease in the performance of the baghouse and potentially indicate an increase in particulate emissions. |
| B. Verification of Operational Status | Results of initial COMS performance evaluation conducted per PS-1 (February 1989). | Records of pressure drop readings will be maintained for five years. |
| C. QA/QC Practices/Criteria | The COMS was initially installed and evaluated per PS-1. The continuous opacity monitor is calibrated for zero and span adjustments daily. | Maintain and operate the control equipment in a manner consistent with good practice for minimizing emissions. |
| D. Monitoring Frequency | The opacity of the baghouse exhaust is monitored continuously. | The facility shall check the pressure drop daily. |
| E. Data Collection Procedures | The data acquisition system (DAS) retains all 6-minute average and hourly average opacity data. Electronic records of opacity reports will be maintained for 5 years. | Records of pressure drop readings will be maintained for five years. |
| F. Averaging Period | Thirty six (36) one-minute averages are used to calculate 6-min averages. The 6-min averages are then used to calculate the hourly opacity average. | N/A |

Emission Point ID Number: EP-B8, EP-B9, and EP-B10

Associated Equipment (See table below)

| EP | EU | EU Description | Emission Control Equipment Description and ID | Continuous Emissions Monitors ID Numbers | Raw Material / Fuel | Rated Capacity (MMBtu/hr) |
|--------|--------|----------------|---|--|-------------------------|---------------------------|
| EP-B8 | EU-B8 | Boiler #8 | Low NO _x Burner (CE-B8) | N8, C8 | Fuel Oil Natural Gas | 213.6 |
| EP-B9 | EU-B9 | Boiler #9 | Low NO _x Burner (CE-B9) | N9, C9 | | 213.6 |
| EP-B10 | EU-B10 | Boiler #10 | Low NO _x Burner (CE-B10) | N10, C10 | | 213.6 |

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 Limits when Combusting Fuel Oil:

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit(s): 6.4 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 6.4 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Particulate Matter (PM)

Emission Limit(s): 6.4 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 27.1 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Carbon Monoxide (CO)

BACT Emission Limit(s): 0.04 lb/MMBtu⁽¹⁾

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

⁽¹⁾Standard is expressed as the average of three (3) runs

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

Emission Limits when Combusting Natural Gas:

Pollutant: Particulate Matter (PM_{2.5})

Emission Limit(s): 2.14 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 2.14 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Particulate Matter (PM)

Emission Limit(s): 2.14 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 7.7 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Carbon Monoxide (CO)

BACT Emission Limit(s): 0.075 lb/MMBtu⁽²⁾

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

⁽²⁾Standard is a 30-day rolling average

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

Authority for Requirement: DNR Construction Permit 75-A-368-S3
567 IAC 23.3(3)"e"

Additional Emission Limits:

Pollutant: Opacity

Emission Limit(s): 40%⁽³⁾

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P
567 IAC 23.3(2)"d"

⁽³⁾An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make correction to operators or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.2 lb/MMBtu

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P
567 IAC 23.3(2)"b"(3)

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 0.2 lb/MMBtu⁽⁴⁾

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P
567 IAC 23.1(2)"ccc"
NSPS Subpart Db

⁽⁴⁾Per 40 CFR §60.44b(h) and 40 CFR §60.44(i), the limit is a 30-day rolling average that includes periods of startup, shutdown, and malfunction.

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 16.0 lb/hr

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

Pollutant: Greenhouse Gas (CO_{2e})

BACT Emission Limit(s): 113,552 ton/yr⁽⁵⁾

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

⁽⁵⁾Standard is a 12-month rolling total

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

- A. These emission units shall combust only natural gas or fuel oil #2.
- B. The number of hours each unit may be fired on fuel oil shall not exceed 200 hours per 12-month rolling period.
- C. The sulfur content of any fuel oil used in the units shall not exceed 0.0015 percent by weight.

Recordkeeping Requirement

- A. Per 40 CFR §60.49b(d)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each operating day.
- B. Record the number of hours each unit is fired on fuel oil. Calculate and record monthly and 12-month rolling totals.
- C. Maintain records to demonstrate the sulfur content of any fuel oil used in each unit, in weight percent.
- D. Calculate the CO_{2e} emissions using unit specific emission factors for CO₂, N₂O and methane from the most recent stack tests. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

NSPS and NESHAP Applicability:

NSPS Subpart Db:

Boilers #8, #9 and #10 are subject the New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60 Subpart Db; 567 IAC 23.1(2)"ccc") and the General Provisions of the NSPS (40 CFR 60 Subpart A; 567 IAC 23.1(2)).
Authority for Requirement: 40 CFR 60 Subpart Db

NESHAP Subpart DDDDD:

Boilers #8, #9 and #10 are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63 Subpart DDDDD) and the General Provisions of the NESHAP (40 CFR 63 Subpart A).
Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 93

Stack Opening, (inches, dia.): 54

Exhaust Flow Rate (scfm): 40,702

Exhaust Temperature (°F): 304

Discharge Style: Vertical unobstructed

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

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

Monitoring Requirements

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

Continuous Emissions Monitoring:

Pollutant – Nitrogen Oxides (NO_x)

Monitoring Equipment Number: ME-N8, ME-N9 and ME-N10

Operational Specifications – 40 CFR Part 60

Date of System Calibration and Quality Assurance – 4/26/2016 – 4/28/2016

Ongoing System Calibration/Quality Assurance – 40 CFR Part 60

Reporting & Record keeping – 40 CFR Part 60

Authority for Requirement – DNR Construction Permits 13-A-302-P, 13-A-303-P, and 13-A-304-P

Pollutant – Carbon Monoxide (CO)

Monitoring Equipment Number: ME-C8, ME-C9 and ME-C10

Operational Specifications – 40 CFR Part 60

Date of System Calibration and Quality Assurance – 4/26/2016 – 4/28/2016

Ongoing System Calibration/Quality Assurance – 40 CFR Part 60

Reporting & Record keeping – 40 CFR Part 60

Authority for Requirement – DNR Construction Permits 13-A-302-P, 13-A-303-P, and 13-A-304-P

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

The owner or operator shall demonstrate compliance with the nitrogen oxide NSPS emission limits through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

The 1-hour average NO_x emission rates measured by the NO_x CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).

Per 40 CFR 60.49b(f), when NO_x emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

The owner or operator shall demonstrate compliance with the carbon monoxide BACT emission limits through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 (PS4). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

In accordance with 40 CFR Part 60 Subpart Db, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring either the oxygen content or the carbon dioxide content of the flue gas discharged from the emission point to the atmosphere.

All continuous monitoring systems (CMS) required by this permit shall be operated and data recorded during all periods of operation of the Boiler except for CMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments

If requested by the Department, the owner/operator shall coordinate the quarterly cylinder gas audits with the Department to afford the Department the opportunity to observe these audits. The relative accuracy test audits shall be coordinated with the Department.

The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

Authority for Requirement: DNR Construction Permits 13-A-302-P, 13-A-303-P, & 13-A-304-P

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: EP-T1 and EP-T2

Associated Equipment

Associated Emission Unit ID Numbers: EU-T1 and EU-T2

Emission Units vented through these Emission Points: EU-T1 and EU-T2

Emission Unit Description: Fuel Oil Tank Vent 1 and Fuel Oil Tank Vent 2

Raw Material/Fuel: Fuel Oil #1 or #2

Rated Capacity: 175,000 gallons each

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permits 13-A-306 and 13-A-307
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permits 13-A-306 and 13-A-307
567 IAC 23.3(2)"a"

Operating Requirements with Associated Monitoring and Recordkeeping

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. These records shall demonstrate compliance with all applicable operating limits. Records shall be legible and maintained in an orderly manner.

Operating Limit

A. These Tanks (EU-T1 and EU-T2) shall be used to store fuel oil #1 or fuel oil #2 only.

Authority for Requirement: DNR Construction Permits 13-A-306 and 13-A-307

Recordkeeping Requirement

A. The facility shall keep records of material stored in these tanks (EU-T1 and EU-T2).

Authority for Requirement: 567 IAC 22.108(3)

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 36

Stack Opening, (inches, dia.): NA

Exhaust Flow Rate (scfm): Breathing Losses

Exhaust Temperature (°F): NA

Discharge Style: NA

Authority for Requirement: DNR Construction Permits 13-A-306 and 13-A-307

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

VI. 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 9th St.
Des Moines, IA 50319-0034
(515) 725-9545

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

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

G31. Prevention of Air Pollution Emergency Episodes

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

567 IAC 26.1(1)

G32. Contacts List

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

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

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

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

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

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-0268

Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

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

Linn County Public Health
Air Quality Branch
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

VII. Appendix A

Links to Standards

- A. 40 CFR Part 60 Subpart A – General Provisions
<https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.a>
- B. 40 CFR Part 60 Subpart Ce – Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators
https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.c_0e
- C. CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.d_0b
- D. 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial Steam Generating Units
https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.d_0c
- E. 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
<https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.iiii>
- F. 40 CFR Part 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
<https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.jjjj>
- G. 40 CFR Part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP)
<https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.63.zzzz>
- H. 40 CFR Part 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
<https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.63.ddddd>