

Iowa Department of Natural Resources Title V Operating Permit

Name of Permitted Facility: Iowa State University
Facility Location: 2809 Wanda Daley Dr., Ames, IA 50011
Air Quality Operating Permit Number: 04-TV-014R2
Expiration Date: February 27, 2021
Permit Renewal Application Deadline: August 27, 2020

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

Responsible Official

Name: Paul E. Richmond
Title: Environmental Health and Safety Director
Mailing Address: 2408 Wanda Daley Dr., Ames, IA 50011-3602
Phone #: 515-294-5359

Permit Contact Person for the Facility

Name: Clay Miller
Title: Environmental Programs Manager
Mailing Address: 2408 Wanda Daley Dr., Ames, IA 50011-3602
Phone #: 515-294-2009

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit. Two Title V Permits exist for Iowa State University (Power Plant and Central Campus). These two permits constitute one stationary source. This is the permit for Iowa State University – Central Campus. The Iowa State University – Power Plant (00-TV-046R1) has a valid Title V permit through March 9, 2019.

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

Pollutants

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

I. Facility Description and Equipment List

Facility Name: Iowa State University

Permit Number: 04-TV-014R2

Facility Description: University (SIC 8221)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
Existing Spark Ignition Engines \geq 400 HP and < 500 HP			
EP-203	EU-203	Emergency Generator – Agronomy (469 bhp)	04-A-278
EP-206	EU-206	Emergency Generator – NSTL (400 bhp)	05-A-071-S1
EP-208	EU-208	Emergency Generator – Sweeney Hall (408 bhp)	04-A-281
Existing Spark Ignition Engines > 500 HP			
EP-204	EU-204	Emergency Generator – Black Engineering (703 bhp)	04-A-279-S1
EP-205	EU-205	Emergency Generator – Molecular Biology (844 bhp)	04-A-280
Existing Compression Ignition Engines > 400 HP and < 500 HP			
EP-352	EU-352	Emergency Generator – LIDIF (449 bhp)	98-A-1086-S1
Existing Compression Ignition Engines > 500 HP			
EP-246	EU-246	Emergency Generator – Kildee (ILRIF) (540 bhp)	98-A-458-S1
EP-337	EU-337	Emergency Generator – Howe Hall (1039 bhp)	99-A-316
EP-338	EU-338	Emergency Generator – Maple Hall (804 bhp)	99-A-324
New Compression Ignition Engines > 400 HP			
EP-508	EU-508	Emergency Generator- Vet Med 2 (965 bhp)	07-A-1347-S2
EP-540	EU-540	Vet Med Emergency Generator (1069 hp)	11-A-215
EP-625	EU-625	ABE Emergency Generator (752 bhp)	13-A-459
Boilers > 10 MMBtu/hr			
EP-210	EU-210	Boiler #1 – Wallace Wilson Hall (16.74 MMBtu/hr)	04-A-282
	EU-211	Boiler #2 – Wallace Wilson Hall (16.74 MMBtu/hr)	
EP-334	EU-334	Boiler #2 – Applied Science 1 (11.70 MMBtu/hr)	Grandfathered
EP-412	EU-412	Boiler (#1) Knapp-Storms (5.021 MMBtu/hr)	05-A-354-S1
EP-413	EU-413	Boiler (#2) Knapp-Storms (5.021 MMBtu/hr)	05-A-355-S1
EP-588	EU-588	Vet Med Boiler # 1 (17.86 MMBtu/hr)	11-A-345
EP-589	EU-589	Vet Med Boiler # 2 (17.86 MMBtu/hr)	11-A-346
EP-590	EU-590	Vet Med Boiler # 3 (17.86 MMBtu/hr)	11-A-347
EP-591	EU-591	Vet Med Boiler # 4 (17.86 MMBtu/hr)	11-A-348
Miscellaneous Sources			
EP-200	EU-200	Veterinary Medicine Incinerator	75-A-368-S3
EP-220	EU-220	Paint Spray Booth – FP&M	04-A-286
EP-235	EU-235	Linear Accelerator – Meats Lab	03-A-1061
EP-236	EU-236	Smoke House #1 – Meats Lab	04-A-289-S1
EP-237	EU-237	Smoke House #2 – Meats Lab	04-A-290-S1
EP-244	EU-244	Metal Atomizer – ASC2	04-A-291

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-506	EU-506	Cooling Tower – Vet Med	07-A-136
Existing Compression Ignition Engines < 400 HP			
EP-259	EU-259	Lied Emergency Generator (40 bhp)	Exempt
EP-292	EU-292	Buchanan Hall Emergency Generator (10 bhp)	Exempt
EP-297	EU-297	Helser Hall Emergency Generator (20 bhp)	Exempt
EP-366	EU-366	Design College Emergency Generator (241 bhp)	Exempt
EP-373	EU-373	Admin. Services Emergency Generator (322 bhp)	Exempt
EP-411	EU-411	Eaton Hall Emergency Generator (168 bhp)	Exempt
EP-419	EU-419	Carver Co-Lab Emergency Generator (161 bhp)	Exempt
EP-465	EU-465	Pearson Emergency Generator (207 bhp)	Exempt
EP-473	EU-473	Martin Hall Emergency Generator (168 bhp)	Exempt
EP-510	EU-510	UV Emergency Generator (51 bhp)	Exempt
EP-524	EU-524	Oak Hall(Formerly Larch) Emergency Generator (241 bhp)	Exempt
EP-526	EU-526	ASC-1 Emergency Generator (241 bhp)	Exempt
New Compression Ignition Engines < 400 bhp			
EP-532	EU-532	Hach Hall Emergency Generator (373 bhp)	Exempt
EP-533	EU-533	Vet Med Pumphouse Emergency Generator (398 bhp)	Exempt
EP-535	EU-535	Music Hall Emergency Generator (80 bhp)	Exempt
EP-537	EU-537	Communication Building 2 Emergency Generator (315 bhp)	Exempt
EP-539	EU-539	Hilton Coliseum 2 Emergency Generator (274 bhp)	Exempt
EP-587	EU-587	Heady Hall Exterior Emergency Generator (49 bhp)	Exempt
EP-621	EU-621	VMRI Bldg.35 Emergency Generator (49 bhp)	Exempt
EP-622	EU-622	Curtiss Hall Student Services Emergency Generator (279 bhp)	Exempt
EP-623	EU-623	Horticulture/Troxel Hall Emergency Generator (98 bhp)	Exempt
EP-624	EU-624	Wallace Wilson Fire System Emergency Generator (389 bhp)	Exempt
EP-630	EU-630	VMRI BSL3 Bldg 46 Emergency Generator #2 (237 bhp)	Exempt
EP-631	EU-631	VMRI Freezer Bldg #62 Emergency Generator (315 bhp)	Exempt
EP-649	EU-649	EHSSB Emergency Generator (198 bhp)	Exempt
EP-657	EU-657	Forker Bldg Emergency Generator (131 bhp)	Exempt
Existing 4-Stroke-Rich Burn, Spark Ignition Engines < 400 HP			
EP-270	EU-270	Agronomy Greenhouse Emergency Generator (60 bhp)	Exempt
EP-271	EU-271	Durham Emergency Generator (268 bhp)	Exempt
EP-272	EU-272	Food Sciences Emergency Generator (52 bhp)	Exempt
EP-273	EU-273	Gilman Hall Emergency Generator (40 bhp)	Exempt
EP-277	EU-277	LeBaron Hall Emergency Generator (201 bhp)	Exempt
EP-278	EU-278	Meats Lab. # 1 Emergency Generator (40 bhp)	Exempt
EP-279	EU-279	Meats Lab. # 2 Emergency Generator (40 bhp)	Exempt
EP-282	EU-282	Research Park Emergency Generator (47 bhp)	Exempt
EP-284	EU-284	Science 2 Emergency Generator (13 bhp)	Exempt
EP-286	EU-286	Town Eng Emergency Generator (17 bhp)	Exempt
EP-287	EU-287	Vet Institute # 40 Emergency Generator (114 bhp)	Exempt
EP-290	EU-290	Barton Hall Emergency Generator (5 bhp)	Exempt

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-291	EU-291	Birch-Welch-Roberts Emergency Generator (14 bhp)	Exempt
EP-294	EU-294	Freeman Hall Emergency Generator (5 bhp)	Exempt
EP-295	EU-295	Friley Hall North Emergency Generator (20 bhp)	Exempt
EP-296	EU-296	Friley Hall South Emergency Generator (13 bhp)	Exempt
EP-302	EU-302	Lyon Hall Emergency Generator (5 bhp)	Exempt
EP-374	EU-374	Olsen Building Emergency Generator (20 bhp)	Exempt
EP-395	EU-395	Linden Hall Emergency Generator (132 bhp)	Exempt
EP-407	EU-407	Gilman Emergency Generator (40 bhp)	Exempt
EP-410	EU-410	Olsen/Bergstrom Emergency Generator (40 bhp)	Exempt
EP-433	EU-433	Gerdin Emergency Generator (27 bhp)	Exempt
EP-472	EU-472	Reiman Gardens Emergency Generator (46 bhp)	Exempt
EP-522	EU-522	Memorial Union Emergency Generator (11 bhp)	Exempt
EP-523	EU-523	UDCC Emergency Generator (65 bhp)	Exempt
EP-639	EU-639	Knapp Storms Dining Complex Emergency Generator (10 bhp)	Exempt
New Spark Ignition Engines < 400 HP			
EP-536	EU-536	Vet Med Field Services Emergency Generator (44 bhp)	Exempt
EP-647	EU-647	Ross Hall Emergency Generator (22.5 bhp)	Exempt
1.6 MMBtu/hr < Boilers < 10MMBtu/hr			
EP-202	EU-202	Livestock Disease Isolation Facility Boiler (LIDIF)	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
EP-420	EU-421	Carver Co-Lab Boiler #2	Exempt
EP-420	EU-422	Carver Co-Lab Boiler #3	Exempt
EP-420	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 # 1	Exempt
EP-603	EU-603	VMRI Bldg 40 # 2	Exempt
EP-628	EU-628	Applied Science Replacement Boiler #1	Exempt
EP-629	EU-629	Applied Science Replacement Boiler #2	Exempt
EP-637	EU-637	Bergstrom Boiler #1	Exempt
EP-638	EU-638	Bergstrom Boiler #2	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)

Insignificant Emission Unit Number	Insignificant Emission Unit Description
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
EU-327	Extension IT (Haber Road) Boiler
EU-328	ASB # 1 Boiler
EU-329	ASB # 2 Boiler
EU-331	Ruminant Nutrition Lab # 1
EU-332	Ruminant Nutrition Lab # 1
EU-339	Howe Hall Spray Booth
EU-363	ASC Tank – AST – Diesel >500 gal
EU-381	Spray Booth Black Engr. Building
EU-383	Design College Spray Room
EU-384	Design College Glazing Spray Room
EU-403	Armory Spray Room
EU-435	Bergstrom Indoor Training Furnace
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
EU-447	Environmental Health and Safety Services Building (EHSSB) Boiler #2
EU-448	Environmental Health and Safety Services Building (EHSSB) Boiler #3
EU-450	EHSSB Solvent Bulking Room
EU-461	ASB Egen Diesel Tank 500 gal
EU-464	Transportation Services Used oil AST 550 gal
EU-468	Reiman Gardens Boiler #1
EU-469	Reiman Gardens Boiler #2
EU-470	Reiman Gardens Boiler #3
EU-471	Reiman Gardens Boiler #4
EU-474	Hawthorn Court Market Boiler
EU-507	Transportation Services E-85 AST 5,000 gal
EU-516	Helser Hall Aerosols Spray Booth
EU-518	Wallace Wilson Fuel Oil AST 2,500 gal
EU-525	Maple Hall AST Diesel 1,000 gal
EU-534	Spray Booth Aerosols College of Design
EU-592	Olsen Building Water Heater # 1 (tankless on demand) (1 MMBtu/hr)
EU-593	Olsen Building Water Heater # 2 (tankless on demand) (1 MMBtu/hr)
EU-594	Olsen Building Water Heater # 3 (tankless on demand) (1 MMBtu/hr)
EU-595	Olsen Building Water Heater # 4 (tankless on demand) (1 MMBtu/hr)
EU-596	Olsen Building Water Heater # 5 (tankless on demand) (1 MMBtu/hr)
EU-597	Olsen Building Water Heater # 6 (tankless on demand) (1 MMBtu/hr)
EU-604	Reiman Gardens Hot Water Heater
EU-619	Schilletter Laundry Hot Water Heater
EU-620	Schilletter Laundry Hot Water Heater
EU-608	LIDIF, Tank – AST – Diesel > 500 gal
EU-609	Vet Med Lloyd, Tank – AST – Diesel > 500 gal

⁽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-610	Stephen's Stage Lift, AST – Hydraulic Oil
EU-611	Vet Med 3 E-Gen, AST Diesel > 500 gal
EU-615	ASC 2 Boiler
EU-616	Fire Service Training Boiler
EU-626	ABE E-Gen Diesel Fuel Tank
EU-627	Wallace Wilson Fire System E-Gen Tank
EU-632	Vet Med Pumphouse EU533 E-Gen Diesel Tank
EU-635	ASB Furnace #1
EU-636	ASB Furnace #2
EU-651	Jack Trice South End Zone Boiler #1
EU-652	Jack Trice South End Zone Boiler #2
EU-656	Food Science and Human Nutrition Boiler
EU-659	4H Youth Extension Boiler #1
EU-660	4H Youth Extension Boiler #2
EU-661	4H Youth Extension Boiler #3
EU-662	Jack Trice Stadium South End Zone Water Heater #1
EU-663	Jack Trice Stadium South End Zone Water Heater #2
EU-664	Knapp Storms Boiler AST 2500 Gallons
EU-665	Veenker Tank, AST, Gas >500 Gallons
EU-666	Veenker Tank, AST, Diesel >500 Gallons
EU-671	Sukup Hall Dust Cyclone

II. Plant-Wide Conditions

Facility Name: Iowa State University
Permit Number: 04-TV-014R2

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

Permit Duration

The term of this permit is: 5 years
Commencing on: February 29, 2016
Ending on: February 27, 2021

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 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"

NSPS and NESHAP Applicability

40 CFR Part 60 Subpart A

This facility is an affected source and these *General Provisions* apply to the facility.

See Appendix for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

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

40 CRF Part 60 Subpart Dc

This facility is subject to Standards of Performance for *Small Industrial Commercial Institutional Steam Generating Units*. The affected units are EU-588, EU-589, EU-590, and EU-591 See Appendix for a link to the Standard.

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

40 CRF Part 60 Subpart IIII

The emergency generators listed below are subject to the New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines* (40 CFR §60.4200 through 40 CFR §60.4219).

EU-508	EU-623
EU-540	EU-624
EU-625	EU-630
EU-532	EU-631
EU-533	EU-649
EU-535	EU-657
EU-537	EU-587
EU-539	EU-621
EU-622	

Applicable subpart IIII requirements are incorporated into the Emission-Point Specific Conditions Section of this permit.

See Appendix for a link to the Standard.

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

40 CRF Part 60 Subpart JJJJ

Emergency generators EU-536 and EU-647 are subject to the New Source Performance Standards (NSPS) Subpart JJJJ – Standards of Performance for *Stationary Spark Ignition Internal Combustion Engines* (40 CFR §60.4230 through 40 CFR §60.4420). Applicable subpart IIII requirements are incorporated into the Emission-Point Specific Conditions Section of this permit.

See Appendix for a link to the Standard.

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

40 CRF Part 63 Subpart A

This facility is an affected source and these *General Provisions* apply to the facility. See Appendix for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 63 Subpart A
567 IAC 23.1(4)

40 CRF Part 63 Subpart ZZZZ

All new and existing compression and spark ignition generators listed below are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ - *Stationary Reciprocating Internal Combustion Engines* (40 CFR §63.6580 through 40 CFR §63.6675).

EU-203	EU-419	EU-657	EU-292
EU-206	EU-465	EU-587	EU-294
EU-208	EU-473	EU-621	EU-295
EU-204	EU-510	EU-270	EU-296
EU-205	EU-524	EU-271	EU-302
EU-352	EU-526	EU-272	EU-374
EU-246	EU-532	EU-273	EU-395
EU-337	EU-533	EU-277	EU-407
EU-338	EU-535	EU-278	EU-410
EU-508	EU-537	EU-279	EU-433
EU-540	EU-539	EU-282	EU-472
EU-625	EU-622	EU-284	EU-522
EU-259	EU-623	EU-286	EU-523
EU-297	EU-624	EU-287	EU-639
EU-366	EU-630	EU-290	EU-536
EU-373	EU-631	EU-291	EU-647
EU-411	EU-649		

Applicable subpart ZZZZ requirements are incorporated into the Emission-Point Specific Conditions Section.

See Appendix for a link to the Standard.

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

40 CFR Part 63 Subpart DDDDD

The boilers and water heaters listed below are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart DDDDD – *Industrial, Commercial, and Institutional Boilers and Process Heaters* (40 CFR §63.7480 through 40 CFR §63.7575).

EU-210	EU-590	EU-420	EU-602
EU-211	EU-591	EU-421	EU-603
EU-334	EU-202	EU-422	EU-628
EU-412	EU-321	EU-423	EU-629
EU-413	EU-378	EU-504	EU-637
EU-588	EU-379	EU-598	EU-638
EU-589	EU-392	EU-599	

See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 63 Subpart DDDDD
567 IAC 23.1(4)"dd"

III. Emission Point-Specific Conditions

Facility Name: Iowa State University
 Permit Number: **04-TV-014R1**

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

Associated Equipment

Table: Existing Spark Ignition Engines ≥ 400 HP and < 500HP ⁽¹⁾

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity (bhp)	Construction Date
203	203	Agronomy Hall Emergency Generator	469	01/01/1985
206	206	National Soil Tilth Lab Emergency Generator	400	06/01/1991
208	208	Sweeney Hall Emergency Generator	408	01/01/1993

⁽¹⁾ All engines listed fire on natural gas.

⁽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.

Table: Existing Spark Ignition Engines ≥ 400 HP and < 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/hr)	SO ₂ (ppmv)	NO _x (lb/hr)	Construction Permit # (Authority for Requirement)
203	40% ⁽¹⁾	0.10	0.1	NA	500	10.29	04-A-278
206	40% ⁽²⁾	0.1	0.1	0.1	500	7.0	05-A-071-S1
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).

Operational Limits & Requirements

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

Operating Limits

Process throughput:

- 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

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. 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

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

Compliance Date

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

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

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

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, 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.)
3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional 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.

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
203	43	8	809	1110	Vertically Unobstructed, Hinged Rain Flap	04-A-278
206	65	8	560	927	Vertical Unobstructed	05-A-071-S1
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 ⁽¹⁾

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity (bhp)	Construction Date
204	204	Black Engineering Hall Emergency Generator	703	01/01/1985
205	205	Molecular Biology Emergency Generator	844	01/01/1991

⁽¹⁾ Both engines listed fire on natural gas.

⁽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.

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"	PM (lb/hr)	SO ₂ (ppmv)	NO _x (lb/hr)	Construction Permit # (Authority for Requirement)
204	40% ⁽¹⁾	0.18	0.1	NA	500	13.76	04-A-279-S1
205	40% ⁽¹⁾	0.20	0.1	NA	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).

Operational Limits & Requirements

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

Operating Limits

Process throughput:

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

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. 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

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)(i) this emergency engine, located 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, unless it operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes of emergency demand response and for the periods of voltage or frequency deviation as specified in §63.6640(f)(2)(ii) and (iii).

Compliance Date

Per 63.6595(a)(1) you must comply with the applicable provisions of Subpart ZZZZ no later than June 15, 2007.

Operating Limits, Reporting, and Recordkeeping Requirements

1. There is no time limit on use for emergency situations. 40 CFR 63.6640(f)(1).
2. The engine may be operated for the purpose of maintenance checks and readiness testing, emergency demand response, and for the periods of voltage or frequency deviation for a maximum of 100 hours/year. See 40 CFR 63.6640(f)(2) for more information.
3. 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 63.6640(f)(3) for more information.
4. If your emergency engine has a maximum engine power of more than 100 HP and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3). See 40 CFR 63.6650(h) for more information.

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.

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
204	-4.5	6	1152	1110	Vertical Unobstructed	04-A-279-S1
205	66.17	10	1547	1150	Vertical Unobstructed	04-A-280

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-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: 22.70 gallons/hr, 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

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 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

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

1. This source shall operate no more than 500 hours per 12 month rolling period.

Process throughput:

1. This source is limited to using #2 fuel oil, with a sulfur content of no greater than 0.1% (weight basis).

Reporting & Record keeping

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.

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

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

Compliance Date

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

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

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)

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

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, 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.)
3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per

calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional 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 (scfm): 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
246	246	Kildee Emergency Generator	540	Fuel Oil #2	06/01/1998
337	337	Howe Hall Emergency Generator	1039	Fuel Oil #2	06/01/1998
338	338	Maple Hall Emergency Generator	804	Diesel Fuel	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 (lb/ MMBtu)	NO _x (lb/hr)	CO (lb/hr)	Construction Permit # (Authority for Requirement)
246	40% ⁽¹⁾	3.29	0.1	NA	2.5	25	NA	98-A-458-S1
337	40% ⁽¹⁾	2.0	0.1	0.6	0.71	22.44	6.0	99-A-316
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).

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

1. 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, 99-A-324

For EP-246 Only

Work practice standards:

1. The fuel shall be limited to #1 or #2 distillate fuel oil only.
2. 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

Process throughput:

1. 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

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.

For EP-246

1. Record the type of fuel used and the sulfur content of the fuel.
2. Record the monthly usage of the generator (in hours).
3. 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

1. The type of fuel used.
2. The sulfur content (by weight percent) of the fuel used.
3. 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

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 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, unless it operates or is contractually obligated to be available for more than 15

hours per calendar year for the purposes of emergency demand response and for the periods of voltage or frequency deviation as specified in §63.6640(f)(2)(ii) and (iii).

Compliance Date

Per 63.6595(a)(1) you must comply with the applicable provisions of Subpart ZZZZ no later than June 15, 2007.

Fuel Requirements Beginning January 1, 2015, if you own or operate an existing emergency compression ignited stationary engine with a site rating of more than 100 bhp and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(b).

Operating Limits, Reporting, and Recordkeeping Requirements

1. There is no time limit on use for emergency situations. 40 CFR 63.6640(f)(1).
2. The engine may be operated for the purpose of maintenance checks and readiness testing, emergency demand response, and for the periods of voltage or frequency deviation for a maximum of 100 hours/year. See 40 CFR 63.6640(f)(2) for more information.
3. 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 63.6640(f)(3) for more information.
4. If your emergency engine has a maximum engine power of more than 100 HP and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3). See 40 CFR 63.6650(h) 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.

Emission Point Number	Stack Height (ft, from the ground)	Stack Opening (dia., inches)	Exhaust Flow Rate	Exhaust Temp. (°F)	Discharge Style	Authority for Requirement
246	35.5	8	1468 scfm	695	Vertical Obstructed	98-A-458-S1
337	84	12	5414 acfm	1024	Vertical Unobstructed	99-A-316
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 Emergency Generator #2
Raw Material/Fuel: Diesel
Rated Capacity: 46.2 gallons/hr, 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 (PM)
Emission Limit(s): 1.06 lb/hr
Authority for Requirement: DNR Construction Permit 07-A-1347-S2

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

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

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

1. The emergency generator shall operate no more than 500 hours per 12-month rolling period.
2. 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).

Process throughput:

1. The emergency generator shall be fired by diesel fuel only.
2. The sulfur content of any diesel fuel used in the emergency generator shall not exceed 0.05% by weight.
3. 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.
4. The owner or operator shall meet the fuel requirements specified in 40 CFR§60.4207.
 - A. 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 30 percent by volume per 40 CFR§80.510(b).
 - B. Per 40 CFR§60.4207, owners and operators of pre-2011 model year diesel generators subject to NSPS Subpart IIII 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.

Work practice standards:

1. Per 40 CFR§60.4209, the owner or operator shall install a non-resettable hour meter prior to startup of the emergency generator.
2. 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

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:

1. Record the sulfur content of any fuel used in the emergency generator in weight percent.
2. 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.

3. The owner or operator shall complete all recordkeeping and monitoring as required by NSPS Subpart IIII.
 - A. The owner or operator of the emergency generator shall follow the monitoring requirements of 40 CFR§60.4209.
 - B. The owner or operator of the emergency generator shall follow the compliance requirements of 40 CFR§60.4211.
 - C. 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

This 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 a new stationary RICE as it was constructed on or after June 12, 2006.

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

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

This emission unit is subject to the New Source Performance Standards (NSPS) Subpart IIII – 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".

Pollutant	Limit	Reference
Particulate Matter (PM) (Filterable Only)	0.54 g/KW-hr	40 CFR §60.4205(a) NSPS Subpart IIII
Nitrogen Oxides (NO _x)	9.2 g/KW-hr	40 CFR §60.4205(a) NSPS Subpart IIII
Hydrocarbons (HC)	1.3 g/KW-hr	40 CFR §60.4205(a) NSPS Subpart IIII
Carbon Monoxide (CO)	11.4 g/KW-hr	40 CFR §60.4205(a) NSPS Subpart IIII
Fuel Sulfur Requirements beginning 10/01/2010	Max 15 ppm Sulfur and Min Cetane Index = 40 or Max Aromatic content = 35%vol	40 CFR §80.510(b)

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: 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

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)

Pollutant: Nitrogen Oxide (NO_x)

Emission Limit(s): 11.25 lb/hr

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

Operational Limits & Requirements

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

Operating Limits

1. This engine is limited to burning diesel fuel oil only.
2. This engine is limited to operating a maximum of 55 hours in any rolling 12-month period.
3. 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.
4. 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:
 - A. A maximum sulfur content of 15 ppm (0.0015%) by weight; and
 - B. A minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.
5. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.
6. 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

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:

1. The owner or operator shall maintain the following monthly records:
 - A. The total number of hours that the engine operated;
 - B. The number of hours that the engine operated for maintenance checks and readiness testing; and
 - C. The rolling 12-month total amount of the number of hours that the engine operated.
2. The owner or operator shall maintain an annual record of the number of hours that the engine operated for maintenance checks and readiness testing.
3. The owner or operator of the engine shall comply with the requirements of Operating Limit # 4 listed above by one of the following methods:
 - A. Have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);
 - B. Obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
 - C. Perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.
4. In accordance with §63.6645(f), the owner or operator shall submit an initial

notification. This notification should include all the information required by §63.9(b)(2)(i) through (v) and a statement that the engine has no additional requirements under the RICE NESHAP and the basis of the exclusion. This notification shall be submitted no later than 120 days after the engine starts up.

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

NSPS and NESHAP Requirements

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 a new stationary RICE as it was constructed on or after June 12, 2006.

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

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

- A. 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 from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are:

Pollutant	Emission Standard	Basis
Particulate Matter (PM)	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC ¹ + NO _x	6.4 grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§ 89.112 Table 1
Opacity – acceleration mode	20%	§ 89.113 (a)(1)
Opacity – lugging mode	15%	§ 89.113 (a)(2)
Opacity – peaks in acceleration or lugging modes	50%	§ 89.113 (a)(3)

¹ Non-methane hydrocarbon

- ii. In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model

year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required.

B. This engine is of the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (567 IAC 23.1(4)"cz", 40 CFR Part 63 Subpart ZZZZ). The engine is a new reciprocating internal combustion engine (RICE). In accordance with §63.6590 (c), the engine must comply with the requirements of Subpart ZZZZ by meeting the requirements of NSPS subpart IIII.

Authority for Requirement: DNR Construction Permit 11-A-215
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): 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, 566 kW

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: 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)

Operational Limits & Requirements

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

Operating Limits

- A. This engine is limited to burning diesel fuel oil that meets the requirements of 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

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:

- 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 condition 14(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

A. 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.

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

Pollutant	Emission Standard	Basis
Particulate Matter (PM)	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC ¹ + NOx	6.4 grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§ 89.112 Table 1
Opacity – acceleration mode	20%	§ 89.113 (a)(1)
Opacity – lugging mode	15%	§ 89.113 (a)(2)
Opacity – peaks in acceleration or lugging modes	50%	§ 89.113 (a)(3)

¹ Non-methane hydrocarbon

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

B. This engine is of the source type regulated by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines* (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ]. The engine is a new reciprocating internal combustion engine located at a major source of HAP, and it is rated at more than 500 HP. In accordance with §63.6590 (b), the engine does not have to meet the requirements of Part 63 subpart ZZZZ and subpart A except for the initial notification requirements of §63.6645(f).

Authority for Requirement: DNR Construction Permit 13-A-459
 40 CFR Part 60 Subpart IIII
 567 IAC 23.1(2)“yyy”
 40 CFR Par6 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): 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: EP-210

Associated Equipment

Associated Emission Unit ID Numbers: EU-210, EU-211

Emission Unit vented through this Emission Point: EU-210
Emission Unit Description: Wallace Wilson Boiler #1
Raw Material/Fuel: Natural Gas, Fuel Oil #1, Fuel Oil #2
Rated Capacity: 16.74 MMBtu/hr

Emission Unit vented through this Emission Point: EU-211
Emission Unit Description: Wallace Wilson Boiler #2
Raw Material/Fuel: Natural Gas, Fuel Oil #1, Fuel Oil #2
Rated Capacity: 16.74 MMBtu/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 04-A-282
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): 0.70 lb/hr

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

Pollutant: Particulate Matter (PM)

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

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 17.04 lb/hr

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

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 4.12 lb/hr

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

Operational Limits & Requirements

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

Operating Limits

Process throughput:

1. The fuel shall be limited to natural gas, Fuel oil #1 or Fuel Oil #2.
2. The sulfur content of the fuel oil shall not exceed 0.5% by weight.

Work practice standards:

1. The quantity of fuel oil used shall not exceed 1,080,000 gallons per 12-month rolling total for boiler EU-210 and Boiler EU-211 combined.

Reporting & Record keeping

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.

1. Record the type of fuel used and the sulfur content of the fuel.
2. Record the monthly quantity (in gallons) of fuel oil utilized for each boiler.
3. Annual fuel usage shall be determined on a 12-month rolling basis, for each month of operation.

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

NSPS and NESHAP Requirements

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
567 IAC 23.1(4)"dd"

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): 1162
- Exhaust Temperature (°F): 297
- Discharge Style: Vertically Unobstructed
- Authority for Requirement: DNR Construction Permit 04-A-282

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-334

Associated Equipment

Associated Emission Unit ID Numbers: EU-334

Emission Unit vented through this Emission Point: EU-334
Emission Unit Description: Boiler #2 – Applied Science
Raw Material/Fuel: Natural Gas
Rated Capacity: 11.70 MMBtu/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%
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"

Operational Limits & Requirements

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

NSPS and NESHAP Requirements

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
567 IAC 23.1(4)"dd"

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-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

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): 0.6 lb/MMBtu

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.20 lb/hr

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

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

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

1. The boiler, EU-412, shall not exceed 500 hours of operation per 12-month rolling total while using fuel oil #1 or #2.

Process throughput:

1. The fuel shall be limited to natural gas, fuel oil #1 or fuel oil #2.
2. The sulfur content of the fuel oil shall not exceed 0.5% by weight.

Reporting & Record keeping

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.

1. Record the type of fuel used and the sulfur content of the fuel.
2. Record the monthly hours of operation while firing fuel oil #1 or #2.
3. 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

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
567 IAC 23.1(4)"dd"

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): 2080

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: 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

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 (PM₁₀)

Emission Limit(s): 0.20 lb/hr

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.20 lb/hr

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.6 lb/MMBtu

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

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 1.00 lb/hr

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

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

1. The boiler, EU-413, shall not exceed 500 hours of operation per 12-month rolling total while using fuel oil #1 or #2.

Process throughput:

1. The fuel shall be limited to natural gas, Fuel Oil #1 or Fuel Oil #2.
2. The sulfur content of the fuel oil shall not exceed 0.5% by weight.

Reporting & Record keeping

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.

1. Record the type of fuel used and the sulfur content of the fuel.
2. Record the monthly hours of operation while firing fuel oil #1 or #2.
3. 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

NSPS and NESHAP Requirements

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
567 IAC 23.1(4)"dd"

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): 2080

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: 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)	Construction Permit
588	588	Vet Med Boiler # 1	Natural Gas	17.86	11-A-345
589	589	Vet Med Boiler # 2	Natural Gas	17.86	11-A-346
590	590	Vet Med Boiler # 3	Natural Gas	17.86	11-A-347
591	591	Vet Med Boiler # 4	Natural Gas	17.86	11-A-348

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: 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

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 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

Operational Limits & Requirements

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

Operating Limits

Process throughput:

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

Reporting & Record keeping

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.

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

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

NSPS and NESHAP Requirements

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)"lll"

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
567 IAC 23.1(4)"dd"

Emission Point Characteristics

These emission points shall conform to the conditions listed below.

Emission Point Number	Stack Height (ft, from the ground)	Discharge Style	Stack Diameter (inches)	Exhaust Temp. (F°)	Exhaust Flow Rate (scfm)	Authority for Requirement
588	49	All stacks are to be vertical without rain cap or with unobstructing rain cap.	28	301	4,821	11-A-345
589	49		28	301	4,821	11-A-346
590	49		28	301	4,821	11-A-347
591	49		28	301	4,821	11-A-348

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-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: Veterinary Medicine Incinerator
Raw Material/Fuel: Natural Gas
Rated Capacity: 1080 lbs/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾⁽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"

Operational Limits & Requirements

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

Operating Limits

Process throughput:

1. The emission unit's primary and secondary burners shall operate exclusively on natural gas, i.e. no backup fuel source.
2. 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.

Control equipment parameters:

1. The afterburner shall operate at all times during any operation of the primary chamber.

Reporting & Record keeping

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.

1. Record the amount of natural gas used on a rolling 12-month basis.
2. Record the weight of hospital waste and medical/ infectious waste combusted by the incinerator as measured on rolling 12-month basis.
3. 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

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: 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: Spray Paint Booth – FP & M
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

⁽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/scf

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

Operational Limits & Requirements

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

Operating Limits

Process throughput:

1. The facility is limited to using no more than 500 gallons of painting and cleaning materials per 12-month rolling period.

Work practice standards:

1. The spray gun capacity being used may operate at a maximum rate of 3.75 gal/hr.
2. The facility is limited to using painting and cleaning materials with a maximum Volatile Organic Compounds (VOC) content of 12.0 pounds per gallon.
3. The facility is limited to using painting and cleaning materials with a individual Hazardous Air Pollutant (HAPs) content of 5.0 pound per gallon.

Reporting & Record keeping

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.

1. Record monthly material usage (units of gal/month) of painting and cleaning materials used at the facility.
2. Record VOC and HAPs content in lbs/gal of each material used at the facility.
3. The MSDS of each painting and cleaning material used at the facility shall be kept on-site and available for inspection by the DNR.
4. During the initial 12 months of operation, cumulative plantwide material usage shall be determined for each month of operation.
5. 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: EP-235

Associated Equipment

Associated Emission Unit ID Numbers: EU-235

Emission Unit vented through this Emission Point: EU-235
Emission Unit Description: Linear Accelerator – Meats Lab (meat sterilization)
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: EP-236

Associated Equipment

Associated Emission Unit ID Numbers: EU-236

Emission Unit vented through this Emission Point: EU-236

Emission Unit Description: Smoke House #1 – Meats Lab

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 (PM₁₀)

Emission Limit(s): 1.23 lb/hr

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

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)

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

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

Process throughput:

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

Reporting & Record keeping

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.

1. The number of hours operated per twelve-month rolling period.
2. 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: EP-237

Associated Equipment

Associated Emission Unit ID Numbers: EU-237

Emission Unit vented through this Emission Point: EU-237
Emission Unit Description: Smoke House #2 – Meats Lab
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)

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

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

Process throughput:

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

Reporting & Record keeping

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.

1. The number of hours operated per twelve-month rolling period.
2. 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: 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: Metal Atomizer – ASC2

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)

Operational Limits & Requirements

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

Operating Limits

Hours of operation:

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

Reporting & Record keeping

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.

- 1. 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.

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-506

Associated Equipment

Associated Emission Unit ID Numbers: EU-506

Emission Unit vented through this Emission Point: EU-506
Emission Unit Description: Cooling Tower – Vet Med
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.

Operating Limits

Work Practice Standards:

1. 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

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.

1. 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.)

2. 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: See Table: Existing Compression Ignition Engines

Associated Equipment

Table: Existing Compression Ignition Engines ⁽¹⁾

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity	Construction Date
259	259	Lied	40 bhp	05/11/1990
292	292	Buchanan Hall	10 bhp	8/1/2003
297	297	Helser Hall	20 bhp	12/01/1981
366	366	Design College	241 bhp	01/01/1974
373	373	Admin. Services	322 bhp	01/01/1997
411	411	Eaton Hall	168 bhp	07/01/2002
419	419	Carver Co-Lab	161 bhp	01/01/2003
465	465	Pearson	207 bhp	06/01/2003
473	473	Martin Hall	168 bhp	07/01/2004
510	510	UV	51 bhp	01/01/2006
524	524	Oak Hall	241 bhp	07/01/1999
526	526	ASC-1	241 bhp	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)

Operational Limits & Requirements

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

Operating Limits

Process throughput:

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

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

Reporting & Record keeping

All records as required by 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.

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

Authority for Requirement: 567 IAC 22.108(3)

NSPS and NESHAP Requirements

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) 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.

Fuel Requirements (for diesel CI > 100 hp)

No requirements except (beginning January 1, 2015) if you own or operate an existing emergency compression ignition stationary engine with a site rating of more than 100 bhp and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(b)

Operation and Maintenance Requirements 40 CFR 63.6602, 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, 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.)
3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional 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

Associated Equipment

Table: New Compression Ignition Engines ⁽¹⁾

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity (bhp)	Date of Construction	Displacement (L/cyl)
532	532	Hach Hall	373	10/21/2008	1.48
533	533	Vet Med Pumphouse	398	7/14/2009	1.47
535	535	Music Hall	80	3/2/2010	0.60
537	537	Communication Building 2	315	9/10/2010	1.13
539	539	Hilton Coliseum 2	274	10/04/2010	1.10
587	587	Heady Hall Exterior	49	9/10/2010	0.61
621	621	VMRI Bldg. 35	49	03/01/2011	0.60
622	622	Curtiss Hall Student Services Emergency Generator	279	07/28/2011	1.12
623	623	Horticulture/Troxel Hall Emergency Generator	98	03/19/2012	1.10
624	624	Wallace Wilson Fire System Emergency Generator	389	04/11/2012	1.45
630	630	VMRI BSL3 Bldg 46 Emergency Generator #2	237	12/18/2012	1.13
631	631	VMRI Freezer Bldg #62 Emergency Generator	315	07/16/2013	1.13
649	649	EHSSB Emergency Generator	198	08/01/2015	1.12
657	657	Forker Bldg Emergency Generator	131	05/28/2015	1.13

⁽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)

Operational Limits & Requirements

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

Operating Limits

Process throughput:

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

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

Reporting & Record keeping

All records as required by 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.

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

Authority for Requirement: 567 IAC 22.108(3)

NSPS and NESHAP Requirements

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) this compression ignition emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after June 12, 2006.

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

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

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

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

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

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

(2) 40 CFR 89.112 and 40 CFR 89.113.

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

(4) Table 1 to Subpart III.

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

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 Engines

Associated Equipment

Table: Existing 4-Stroke, Rich Burn Spark Ignition Engines ⁽¹⁾

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity (bhp)
270	270	Agronomy Greenhouse	60
271	271	Durham	268
272	272	Food Sciences	52
273	273	Gilman Hall	40
277	277	LeBaron Hall	201
278	278	Meats Lab. # 1	40
279	279	Meats Lab. # 2	40
282	282	Research Park	47
284	284	Science 2	13
286	286	Town Eng.	17
287	287	Vet Institute # 40	114
290	290	Barton Hall	5
291	291	Birch-Welch-Roberts	14
294	294	Freeman Hall	5
295	295	Friley Hall North	20
296	296	Friley Hall South	13
302	302	Lyon Hall	5
374	374	Olsen Building	20
395	395	Linden Hall	132
407	407	Gilman	40
410	410	Olsen/Bergstrom	40

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity (bhp)
433	433	Gerdin	27
472	472	Reiman Gardens	46
522	522	Memorial Union	11
523	523	UDCC	65
639	639	Knapp Storms Dining Complex	10

⁽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

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

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

Compliance Date

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

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

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

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, 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

- (3) Keep records of the maintenance conducted on the stationary RICE.
- (4) 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

4. An initial notification is not required per 40 CFR 63.6645(a)(5).
5. 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.)
6. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional 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 Engines

Associated Equipment

Table: New Spark Ignition Engines ⁽¹⁾

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity (bhp)	Date of Construction
536	536	Vet Med Field Services Emergency Generator	Natural Gas	44	7/28/2010
647	647	Ross Hall Emergency Generator	Natural Gas	22.5	06/02/2015

⁽¹⁾ These engines are 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 this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/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

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

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

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

Emission Standards:

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

Maximum Engine Power	Manufacture Date	Emission Standards ⁽¹⁾						
		g/HP-hr				ppmvd at 15% O ₂		
		NO _x	HC + NO _x	CO	VOC ⁽²⁾	NO _x	CO	VOC
25 < HP < 130	1/1/2009+	N/A	10	387	N/A	N/A	N/A	N/A

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

⁽²⁾ Formaldehyde emissions are not included.

⁽³⁾ Owners and operators of 25 hp < engines < 100 hp manufactured prior to 1/1/2011, that were certified to those standards, may optionally choose to meet those standards.

Compliance Demonstrations:

1. You must demonstrate compliance with the emission standards according to one of following methods (40 CFR 60.4243(b)):

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

Maximum Engine Power	Initial Test	Subsequent Test
25 < HP ≤ 500	Required	Not required

2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer’s written instructions must keep records of required maintenance. 40 CFR 60.4243(b)(1), 4243(a) and 4245(a)(2).

3. Owners and operators of natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, a performance test must be conducted to demonstrate compliance with the emission standards. 40 CFR 60.4243(e).

4. If you are an owner or operator of engine ≤ 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the

manufacturer's written emission-related instructions, you are required to perform initial performance testing, but you are not required to conduct subsequent performance testing unless the engine is rebuilt or undergoes major repair or maintenance. 40 CFR 60.4243(f).

5. Owners and operators of certified engines must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).
6. Owners and operators of non-certified engines or certified engines operating in a non-certified manner must keep documentation that these engines meet the applicable emission standards. 40 CFR 60.4245(a)(4).

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

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

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

2. 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 JJJ
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: Boilers

Associated Equipment

Table: Boilers ^{(1) (2)}

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Rated Capacity (MMBtu)
202	202	Livestock Disease Isolation Facility Boiler (LIDIF)	4.00
321	321	Vet Medical Research Institute #1 Boiler	2.45
378	378	Livestock Infectious Disease Isolation Facility Boiler #3	3.30
	379	Livestock Infectious Disease Isolation Facility Boiler #2	3.30
	392	Livestock Infectious Disease Isolation Facility Boiler #4	3.30
420	420	Carver Co-Lab Boiler #1	2.04
420	421	Carver Co-Lab Boiler #2	2.04
420	422	Carver Co-Lab Boiler #3	2.04
420	423	Carver Co-Lab Boiler #4	2.04
504	504	Carver Co-Lab Boiler #5	2.04
598	598	Olsen Boiler # 1	3.00
599	599	Olsen Boiler # 2	3.00
602	602	VMRI Bldg 40 # 1	2.093
603	603	VMRI Bldg 40 # 2	2.093
628	628	Applied Science Replacement Boiler #1	5.025
629	629	Applied Science Replacement Boiler #2	5.025
637	637	Bergstrom Boiler #1	2
638	638	Bergstrom Boiler #2	2

(1) All boilers are existing boilers and exempt from construction permitting

(2) These boilers fire on natural gas.

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"

Operational Limits & Requirements

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

NSPS and NESHAP Requirements

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
567 IAC 23.1(4)"dd"

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

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

G1. Duty to Comply

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

G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, 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 Permits, 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 following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
 - a. Form 1.0 "Facility Identification";
 - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
 - c. Form 5.0 "Title V annual emissions summary/fee"; and
 - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
 - a. Form 1.0 "Facility Identification";
 - b. Form 5.0 "Title V annual emissions summary/fee";
 - c. Part 3 "Application certification."
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) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

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

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

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department

within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

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

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

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

G15. Permit Deviation Reporting Requirements

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

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

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of

performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

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

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

- a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
- b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
- e. The changes comply with all applicable requirements.
- f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
 - i. A brief description of the change within the permitted facility,
 - ii. The date on which the change will occur,
 - iii. Any change in emission as a result of that change,
 - iv. The pollutants emitted subject to the emissions trade
 - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
 - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
 - vii. Any permit term or condition no longer applicable as a result of the change.

567 IAC 22.110(1)

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that does any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Title V Permit Modification.

a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:

i. Do not violate any applicable requirement;

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;

iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).

- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
- i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
 - ii. The permittee's suggested draft permit;
 - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
 - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

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

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

G19. Duty to Obtain Construction Permits

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

G20. Asbestos

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

G21. Open Burning

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

G22. Acid Rain (Title IV) Emissions Allowances

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

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

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

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

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

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air

conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance 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
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(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:

Chief of Air Permits
U.S. EPA Region 7
Air Permits and Compliance Branch
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
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 725-9500

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 3

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

Field Office 5

7900 Hickman Road, Suite #200
Windsor Heights, IA 50324
(515) 725-0268

Polk County Public Works Dept.

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

Field Office 2

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

Field Office 4

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

Field Office 6

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

Linn County Public Health

Air Quality Branch
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

V. Appendix

- A. 40 CFR 60 Subpart A – *General Provisions*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.a>
- B. 40 CFR 60 Subpart Dc – Standards of Performance for *Small Industrial Commercial Institutional Steam Generating Units*.
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.d_0c
- C. 40 CFR 60 Subpart IIII - Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.iiii>
- D. 40 CFR 60 Subpart JJJJ - Standards of Performance for *Stationary Spark Compression Ignition Internal Combustion Engines*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.jjjj>
- E. 40 CFR 63 Subpart A – *General Provisions*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.10.63.a>
- F. 40 CFR 63 Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.zzzz>
- G. 40 CFR 63 Subpart DDDDD – National Emission Standard for Hazardous Air Pollutants for *Industrial, Commercial, and Institutional Boilers and Process Heaters*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.ddddd>