

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

**Name of Permitted Facility: University of Northern Iowa -
Power Plant**

Facility Location: 1901 West 30th Street, Cedar Falls, IA 50614

Air Quality Operating Permit Number: 04-TV-022R3

Expiration Date: 11/1/2028

Permit Renewal Application Deadline: 5/1/2028

EIQ Number: 92-5192

Facility File Number: 07-02-006

Responsible Official

Name: Brent Maitland

Title: Power Plant Manager

**Mailing Address: University of Northern Iowa – Power Plant
1901 West 30th Street, Cedar Falls, IA 50614**

Phone #: (319) 273-6393

Permit Contact Person for the Facility

Name: David Ames

Title: Assistant Manager of Controls & Environmental Compliance

**Mailing Address: University of Northern Iowa - Power Plant
1901 West 30th Street, Cedar Falls, IA, 50614**

Phone #: (319) 273-6090

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 separate Title V permits are issued for the University of Northern Iowa (one stationary source). This Title V permit is for the Power Plant portion of the University and the Title V permit 02-TV-016R2 (EIQ # 92-5628) has been issued for the Main Campus.

For the Director of the Department of Natural Resources



11/02/2023

Marnie Stein, 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
Ng/J.....	Nanograms per joule
NSPS.....	new source performance standard
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
VMT/hr	Vehicle Miles Traveled per hour

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: University of Northern Iowa – Power Plant

Permit Number: 04-TV-022R3

Facility Description: College/University (SIC 8221)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-199-1	EU-199-BLR-1	Boiler #1	None
EP-199-2	EU-199-BLR-2	Boiler #2	None
EP-199-3	EU-199-BLR-3	Boiler #3	07-A-301-P5
	EU-199-BLR-4	Boiler #4	
EP-199-5A	EU-199-ASH-5A	#3 Ash System-Conveying	78-A-164-S2
EP-199-5B	EU-199-ASH-5B	#3 Ash System-Silo	07-A-302
EP-199-5C	EU-199-ASH-5C	#3 Ash System-Truck Loading	07-A-303
EP-199-6A	EU-199-ASH-6A	#4 Ash System-Conveying	07-A-304-P1
EP-199-6B	EU-199-ASH-6B	#4 Ash System-Silo Bin Vent	07-A-305-P2
	EU-199-ASH-6C	#4 Ash System-Truck Loading	
EP-199-6C	EU-199-ASH-6C	#4 Ash System-Truck Loading	07-A-306-P1
EP-199-7	EU-199-LIME-7	#4 Limestone System-Silo Bin Vent	07-A-307-P1
EP-199-8A	EU-199-CHS-8A	Coal System-Plant Coal Handling	92-A-656-S4
EP-199-8B	EU-199-CHS-8B	Coal System-Bunker #3 Silo	07-A-308-P1
EPF-199-9A	EU-199-COAL-9A	Coal Pile Receiving	07-A-309-P2
EPF-199-9D	EU-199-COAL-9D	Coal Pile Reclaim Hopper	07-A-312-P2
EPF-199-9B	EU-199-COAL-9B	Coal Pile Truck Traffic	07-A-310-P
EPF-199-9C	EU-199-COAL-9C	Coal Pile Front End Loader Traffic	07-A-311-P
EPF-199-10A	EU-199-COKE-10A	Petroleum Coke Receiving	None
EPF-199-10B	EU-199-COKE-10B	Petroleum Coke Pile	None
EPF-199-10C	EU-199-COKE-10C	Petroleum Coke Reclaim	None
EP-199-11	EU-199-AST-11	Fuel Oil Storage Tank	None
EP-199-12	EU-199-DSI-12	DSI Silo #1	15-A-300
EP-199-16	EU-199-CT-1	Cooling Tower (3 cells)	20-A-031

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-199-WELD-14	Maintenance Welding
EU-199-PARTS-15	Parts Washer
EU-199-LUBE-13	Lube Oil Vapor Extractor

II. Plant-Wide Conditions

Facility Name: University of Northern Iowa – Power Plant

Permit Number: 04-TV-022R3

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

Permit Duration

The term of this permit is: Five years from permit issuance.

Commencing on: 11/2/2023

Ending on: 11/1/2028

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

Emission Limits

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

Opacity (visible emissions): 40% opacity

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

Sulfur Dioxide (SO₂): 500 parts per million by volume

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

Particulate Matter:

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

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

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

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and

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

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

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

40 CFR 60 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are Boiler #4 (EU-199-BLR-4), Coal System-Plant Coal Handling (EU 199-CHS-8A), and Coal System-Bunker #3 Silo (EU-199-CHS-8B).

See Appendix B for the link of the Standard.

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

40 CFR 60 Subpart Db Requirements

This facility is subject to Standards of Performance for Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The affected unit is Boiler #4 (EU-199-BLR-4).

See Appendix B for the link of the Standard.

Authority for Requirement: 40 CFR 60 Subpart Db
567 IAC 23.1(2)"ccc"

40 CFR 60 Subpart Y Requirements

This facility is subject to Standards of Performance for Coal Preparation Plants and Processing Plants. The affected units are Coal System-Plant Coal Handling (EU 199-CHS-8A) and Coal System-Bunker #3 Silo (EU-199-CHS-8B).

See Appendix B for the link of the Standard.

Authority for Requirement: 40 CFR 60 Subpart Y
567 IAC 23.1(2)"v"

40 CFR 63 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are Boiler #1 (EU-199-BLR-1), Boiler #2 (EU-199-BLR-2), Boiler #3 (EU-199-BLR-3) and Boiler #4 (EU-199-BLR-4).

See Appendix B for the link of the Standard.

Authority for Requirement: 40 CFR 63 Subpart A
567 IAC 23.1(4)"a"

40 CFR 63 Subpart DDDDD Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The affected units are Boiler #1 (EU-199-BLR-1), Boiler #2 (EU-199-BLR-2), Boiler #3 (EU-199-BLR-3) and Boiler #4 (EU-199-BLR-4).

See Appendix B for the link of the Standard.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

III. Emission Point-Specific Conditions

Facility Name: University of Northern Iowa – Power Plant
Permit Number: 04-TV-022R3

Emission Point ID Numbers: EP-199-1, EP-199-2

Associated Equipment

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity
EP-199-1	EU-199-BLR-1	Boiler #1	Natural Gas/#2 Fuel Oil	83.8 MMBtu/hr
EP-199-2	EU-199-BLR-2	Boiler #2	Natural Gas/#2 Fuel Oil	83.8 MMBtu/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limits: 40 %

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

Pollutant: Particulate Matter (PM)

Emission Limits: 0.6 lb/MMBtu

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

Pollutant: Sulfur Dioxide (SO₂) (when burning #2 fuel oil)

Emission Limit(s): 2.5 lb/MMBtu

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

Pollutant: Sulfur Dioxide (SO₂) (when burning natural gas)

Emission Limit(s): 500 ppmv

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

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

Process throughput:

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

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

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

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

Authority for Requirement: 567 IAC 22.108(3)

NESHAP Applicability

Boiler #1 (EU-199-BLR-1) and Boiler #2 (EU-199-BLR-2) are subject to the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial and Institutional Boilers and Process Heaters* [40 CFR Part 63, Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63, Subpart DDDDD

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EP-199-3

Associated Equipment

Emission Unit Number	Emission Unit Description	Control Equipment	Emissions Monitors	Raw Material	Rated Capacity
EU-199-BLR-3	Boiler #3	CE-199-3: Baghouse CE-DSI-3: Sorbent Injection System CE-119-5: Steam Injection	ME-199-3: Opacity	Coal #2 Fuel Oil Natural Gas	163.6 MMBtu/hr
EU-199-BLR-4	Boiler #4	CE-199-4: Baghouse CE-199-4b: Low NO _x Burners (LNB)/ Secondary Air CE-199-4c: Limestone Injection CE-DSI-4: Sorbent Injection System	ME-199-4: SO ₂ , NO _x , CO, Opacity Diluent CO ₂	Coal Petroleum Coke Natural Gas*	143.1 MMBtu/hr

*Natural gas is used as an ignitor.

DNR Construction Permit 07-A-301-P5

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.

EU-199-BLR-3, Boiler #3

Pollutant: Opacity

Emission Limits: 40 %⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-301-P5
567 IAC 23.3(2)"d"

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

Emission Limits: 58.3 lbs/hr

Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Particulate Matter (PM) - State

Emission Limit(s): 0.2 lb/MMBtu

Authority for Requirement: DNR Construction Permit 07-A-301-P5
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)
Emission Limits: 6 lb/MMBtu, 2,222.6 tons/yr⁽²⁾
Authority for Requirement: DNR Construction Permit 07-A-301-P5
567 IAC 23.3(3)"a"

Pollutant: Nitrogen Oxide (NO_x)
Emission Limits: 15.6 lb/hr (Natural gas only), 295.99 tons/yr⁽²⁾
Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Carbon Monoxide (CO)
Emission Limits: 185.6 tons/yr⁽²⁾
Authority for Requirement: DNR Construction Permit 07-A-301-P5

⁽²⁾Standard is a twelve month rolling total.

EU-199-BLR-4, Boiler #4, BACT Emission Limits

Pollutant: Opacity
Emission Limits: 5% (1-hour average)
Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Particulate Matter (PM) - State
Emission Limits: 0.035 lb/MMBtu
Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: PM₁₀
Emission Limits: 0.033 lb/MMBtu
Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Sulfur Dioxide (SO₂)
Emission Limits: 187.7 tons/yr⁽¹⁾, 95% reduction⁽²⁾
Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Nitrogen Oxide (NO_x)
Emission Limits: 69.0 tons/yr⁽¹⁾, 0.11 lb/MMBtu⁽³⁾
Authority for Requirement: DNR Construction Permit 07-A-301-P5

⁽¹⁾ Standard is a twelve month rolling total.

⁽²⁾ The reduction is based on 95% removal of sulfur from all fuels combusted. This standard is a 30-day rolling average not including periods of startup, shutdown, and malfunction.

⁽³⁾ This standard is a 30-day rolling average not including periods of startup, shutdown, and malfunction.

EU-199-BLR-4, Boiler #4, Other Emission Limits

Pollutant: Opacity

Emission Limits: 20 %⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-301-P5
567 IAC 23.1(2)"ccc"

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

Pollutant: Particulate Matter (PM) - Federal

Emission Limits: 22 ng/J (0.051 lb/MMBtu)

Authority for Requirement: DNR Construction Permit 07-A-301-P5
567 IAC 23.1(2)"ccc"

Pollutant: Sulfur Dioxides (SO₂)

Emission Limits: See Footnote⁽²⁾

Authority for Requirement: 567 IAC 23.1(2)"ccc"
DNR Construction Permit 07-A-301-P5

⁽²⁾ SO₂ emission limit is determined by the following formula:

$$E_s = (K_a H_a + K_b H_b) / (H_a + H_b)$$

where: E_s is the SO₂ emission limit (in either ng/J or lb/MMBTU heat input)

K_a is 520 ng/J or 1.2 lb/MMTU

K_b is 340 ng/J or 0.8 lb/MMBTU

H_a is the heat input from the combustion of coal (in either J or MMBTU)

H_b is the heat input from the combustion of oil (in either J or MMBTU)

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

Pollutant: Nitrogen Oxides (NO_x)

Emission Limits: 260 ng/J (0.60 lb/MMBtu)⁽³⁾

Authority for Requirement: 567 IAC 23.1(2)"ccc"
DNR Construction Permit 07-A-301-P5

⁽³⁾The limit is a 30-day rolling average that includes periods of startup, shutdown, and malfunction.

Pollutant: Carbon Monoxide (CO)

Emission Limits: 22.6 lbs/hr

Authority for Requirement: DNR Construction Permit 07-A-301-P5

EP-199-3 Stack Emission Limits

Pollutant: PM₁₀

Emission Limits: 64.73 lbs/hr

Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Sulfur Dioxides (SO₂)

Emission Limits: 1067.67 lbs/hr

Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Nitrogen Oxide (NO_x)

Emission Limits: 113.53 lbs/hr

Authority for Requirement: DNR Construction Permit 07-A-301-P5

Pollutant: Carbon Monoxide (CO)

Emission Limits: 65.09 lbs/hr

Authority for Requirement: DNR Construction Permit 07-A-301-P5

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator is limited to firing coal, oil, and or natural gas in Boiler 3.
- B. The owner or operator is limited to firing 808 MMCF natural gas in Boiler 3 per 12-month rolling total.
- C. The owner or operator is limited to firing coal and/or petroleum coke in Boiler 4.
- D. The owner or operator shall not exceed 6.0% (by weight) sulfur content in the fuel.
- E. The owner or operator shall not exceed 211,500 lb/hr combined steam production from Boilers 3 & 4.
- F. The owner or operator shall operate Boiler 4 as it is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 – 40 CFR §60.19) and Db (40 CFR §60.40b – 40 CFR §60.49b).
- G. The owner or operator shall conduct an inspection of the emission units (EU-199-BLR-3 and EU-199-BLR-4) and the associated control equipment (CE-199-3, CE-199-4, CE-199-5, CE DSI-3, and CE DSI-4) at a minimum of once per year and correct/repair any issues discovered during the inspection.
- H. The owner or operator shall record the following information for each boiler and for each day of operation:
 - (1) The date,
 - (2) The fuel(s) combusted that day,
 - (3) The total amount of each fuel combusted, and
 - (4) An analysis showing the sulfur content representative of the fuel combusted for that day.
- I. The owner or operator shall record the volume, in units of MMCF, on a monthly basis that Boiler 3 combusts, and calculate and record the total volume of natural gas combusted in Boiler 3 for the 12-month running total.
- J. The owner or operator shall record the 30-day rolling average for SO₂ reduction for Boiler 4.
- K. The owner or operator shall record the hourly steam production for each boiler along with the combined total steam production.
- L. The owner or operator shall retain all applicable recordkeeping set forth in NSPS Subparts A (40 CFR §60.1 – 40 CFR §60.19) and Db (40 CFR §60.40b – 40 CFR §60.49b).
- M. The owner or operator shall maintain a log of all inspections and maintenance activities performed on the emission units (EU-199-BLR-3 and EU-99-BLR-4) and the associated control equipment (CE-199-3, CE-199-4, CE-199-5, CE DSI-3, and CE DSI-4). This log shall include but not limited to the date the inspection or maintenance activity occurred and any issues identified or addressed.
- N. The owner or operator shall operate the humidifier (CE-199-5) consistent with the most recent compliance testing demonstrating compliance with all applicable emission

limitations specified above.

- O. The owner or operator shall maintain copies of the previous performance tests for boiler (EU-199-BLR-3). The performance test shall include operating scenario data that detail control equipment operation (CE-199-3, CE-199-5, and CE DSI-3) during the most recent performance test that demonstrated compliance with the emission limits.
- P. The owner or operator shall record the humidifier (CE-199-5) operational status on an hourly basis

Authority for Requirement: DNR Construction Permit 07-A-301-P5

NSPS and NESHAP Applicability

Boiler 4 is subject to Subparts A (*General Provisions*; 40 CFR §60.1 – 40 CFR §60.19) and Db (Standards of Performance for *Industrial-Commercial-Institutional Steam Generating Units*; 40 CFR §60.40b – 40 CFR §60.49b) of the NSPS.

Authority for Requirement: DNR Construction Permit 07-A-301-P5
40 CFR 60 Subpart Db
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart A
567 IAC 23.1(2)

Boiler 3 and Boiler 4 are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial, and Institutional Boilers and Process Heaters* [40 CFR Part 63 Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 198

Stack Opening, (inches, dia.): 54

Exhaust Flow Rate (scfm): 75,300

Exhaust Temperature (°F): 345

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-301-P5

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

Monitoring Requirements

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

Stack Testing:

Boiler 4:

Pollutant – Particulate Matter (PM) – State
Stack Test to be Completed: 11/1/2025
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51, Appendix M, Method 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM₁₀)
1st Stack Test to be Completed: 11/1/2025
Test Method – 40 CFR 51, Appendix M, 201A with 202
Authority for Requirement – 567 IAC 22.108(3)

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

Authority for Requirement – 567 IAC 22.108(3)

Continuous Emission Monitoring:

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
Opacity	CEMS	Continuous ¹	1 hour	40 CFR 60, Appendix A, Method 9
SO ₂	CEMS	Continuous ^{1,2}	1 hour	40 CFR 60, Appendix A, Method 6C
NO _x	CEMS	Continuous ^{1,3}	1 hour	40 CFR 60, Appendix A, Method 7E
CO	CEMS	Continuous ^{1,3}	1 hour	40 CFR 60, Appendix A, Method 10

¹ Continual compliance for Boiler 4 shall be demonstrated through the use of continuous emission monitoring system (CEMS).

² Continual compliance for Boiler 3 shall be done through the use of either a CEMS or fuel monitoring of the sulfur (S) content of the fuel combusted.

³ Continual compliance for Boiler 3 shall be demonstrated through the use of either CEMS or the continuous testing program required in the conditions listed below.

A. The following monitoring systems are required:

I. Boiler 4 requirements:

In accordance with 40 CFR §60.48b(a), the owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on Boiler 4, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter

control system's performance are monitored (subject to the approval of the Administrator). The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 1 (PS1).

In accordance with 40 CFR §60.47b(a), the owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) on Boiler 4 for measuring sulfur dioxide (SO₂) and either oxygen (O₂) or carbon dioxide (CO₂) and shall record the output of the systems. The SO_x and either O₂ or CO₂ concentrations shall be monitored at both the inlet and outlet of the SO₂ control device. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The owner or operator shall meet the requirements of 40 CFR §60.47b for monitoring of SO₂ emissions.

In accordance with 40 CFR §60.47b(b), the owner or operator shall install, calibrate, maintain, and operate a CEMS on Boiler 4, and record the output of the system, for measuring nitrogen oxides (NO_x) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The owner or operator shall meet the requirements of 40 CFR §60.48b for monitoring of NO_x emissions.

Install, calibrate, maintain, and operate a CEMS on Boiler 4, and record the output of the system, for measuring carbon monoxide (CO) emissions discharged to the atmosphere from Boiler 4. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 4A (PS4A) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

II. Emission Point Requirements:

- For SO₂, the owner or operator shall either:
 - (1) Install, calibrate, maintain, and operate a CEMS on either Boiler 3 or the stack for the combined exhaust of Boilers 3 & 4 (EP 199-3), and record the output of the system, for measuring SO₂ emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.
 - (2) Assume all the sulfur in the fuel combusted is converted to SO₂. The sulfur content used in the calculation shall be based on the monitoring required in Operating Requirements above.
- For NO_x, the owner or operator shall either:

- (1) Install, calibrate, maintain, and operate a CEMS on either Boiler 3 or the stack for the combined exhaust of Boilers 3 & 4 (EP 199-3), and record the output of the system, for measuring NO_x emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.
- (2) Conduct a stack test (40 CFR 60, Appendix A, Method 7E) each quarter that Boiler 3 operates on coal or fuel oil more than thirty (30) days in that quarter. Consecutive stack tests shall be a minimum of thirty (30) days apart. The tests shall be conducted under the same operating and combustion conditions as the CO stack tests required in this section of the permit.

- For CO, the owner or operator shall either:

- (1) Install, calibrate, maintain, and operate a CEMS on either Boiler 3 or the stack for the combined exhaust of Boilers 3 & 4 (EP 199-3), and record the output of the system, for measuring carbon monoxide (CO) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 4A (PS4A) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit
- (2) Conduct a stack test (40 CFR 60, Appendix A, Method 10) each quarter that Boiler 3 operates on coal or fuel oil more than thirty (30) days in that quarter. Consecutive stack tests shall be a minimum of thirty (30) days apart. The tests shall be conducted under the same operating and combustion conditions as the NO_x stack tests required in this section of the permit.

B. Compliance with the non-NSPS Boiler 4 opacity, SO₂, and NO_x emission standards of this permit shall be demonstrated through the use of the monitors required by NSPS Subpart Db. The following conditions shall apply to all CEMS (Boiler 3, 4, or combined stack) for non-NSPS opacity, SO₂, NO_x, and CO emission standards:

- I. The CEMS required by this permit shall be operated and data recorded during all periods of operation except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
- II. The 1-hour average SO₂, NO_x, and CO emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.
- III. For each hour of missing emission data (NO_x, SO₂, or CO), the owner or operator shall substitute data by:
 - (1) If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i) For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the

- hour before and the hour after the missing data period.
- ii) For a missing data period greater than 24 hours, substitute the greater of:
 - (a) The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (b) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- (2) If the monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
- i) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii) For the missing data period of more than 8 hours, substitute the greater of:
 - (a) The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (b) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- (3) If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

If requested by the Department, the owner/operator shall coordinate the quarterly cylinder gas audits with the Department to afford the Department the opportunity to observe these audits. The relative accuracy test audits shall be coordinated with the Department.
 Authority for Requirement: DNR Construction Permit 07-A-301-P5

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

See Appendix A

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-199-5A

Associated Equipment

Emission Unit Number	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-5A	#3 Coal Ash Conveyor	CE 199-5A1: Primary Mechanical Collector Followed by: CE 199-5A2: Secondary Mechanical Collector Final Control Equip. CE 199-5A3: Baghouse	Coal Ash	10 tons/hr	78-A-164-S2

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 78-A-164-S2
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): 0.30 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 78-A-164-S2
567 IAC 23.3(1)"a"

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The #3 Coal Ash Conveyor (EU 199-ASH-5A) shall operate intermittently (periods of intentional starts and stops throughout the day). NOTE: *Normal* operation for each operating period is expected to last for no more than 2 consecutive hours. This *does not apply* during periods of equipment maintenance and malfunction.
 - (1) The owner or operator shall maintain documentation describing the normal operation of the #3 Coal Ash Conveyor (EU 199-ASH-5A) as well as what constitutes equipment maintenance and malfunction.
 - (2) The owner or operator shall maintain daily records of the number of hours that the #3 Coal Ash Conveyor (EU 199-ASH-5A) operates.

Control Equipment Requirements

- B. The owner or operator shall operate the control equipment covered by this permit whenever the #3 Coal Ash Conveyor (EU 199-ASH-5A) is in operation.
- C. The owner or operator shall operate, inspect, and maintain the control equipment covered by this permit according to the manufacturer’s specifications and instructions.
 - (1) The owner or operator shall conduct an inspection of the control equipment covered by this permit at a minimum of once per year and correct/repair any issues discovered during the inspection.
 - (2) The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment covered by this permit. At a minimum, this log shall include the date that any inspection and/or maintenance was performed; any issues identified during inspection and maintenance activities; and the date each issue was resolved.
- D. The owner or operator shall conduct visible emissions observations on EP 199-5A once per week while the #3 Coal Ash Conveyor (EU 199-ASH-5A) is operating.
 - (1) The owner or operator shall record the date and time of the observations and the presence or absence of visible emissions.
 - (2) If visible emissions from EP 199-5A are observed, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated equipment.
 - (3) The owner or operator shall maintain a record of all corrective actions taken.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 75
 Stack Opening, (inches, dia.): 6
 Exhaust Flow Rate (scfm): 3,500
 Exhaust Temperature (°F): Ambient
 Discharge Style: Downward
 Authority for Requirement: DNR Construction Permit 78-A-164-S2

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

Monitoring Requirements

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

- Agency Approved Operation & Maintenance Plan Required?** Yes No
- Facility Maintained Operation & Maintenance Plan Required?** Yes No
- Compliance Assurance Monitoring (CAM) Plan Required?** Yes No

Authority for Requirement: 567 IAC 22.108(3)

Baghouse Agency Operation & Maintenance Plan

Facility: University of Northern Iowa Power Plant
EIQ Number: 92-5192
Emission Unit: EU-199-ASH-5A, COAL ASH CONVEYING
Emission Point: EP-199-ASH-5A
Control Equipment: CE-199-5A Baghouse (Pulsed Air)

Monitoring Guidelines

The University of Northern Iowa Power Plant is committed to taking timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation to normal, or to restore the indicator to normal range. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

MONITORING METHODS AND CORRECTIVE ACTION

General

Periodic Monitoring is not required during periods of time greater than one day in which Boiler 3 Ash System does not operate.

Routine Operations

Daily baghouse operating requirements include monitoring and evaluation of various parameters, recordkeeping, preventative maintenance, and the appropriate response to any malfunctions.

Preventative Maintenance

The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. The following preventative maintenance tasks will be programmed into the CMMS and work orders generated for performing these maintenance tasks.

Weekly

- Inspect differential pressure across the bags. Confirm pressure is within the manufacturer's recommended operating range.
- Inspect compressed air pulsing system for any abnormal conditions.
- Inspect hopper gates and piping for signs of jamming, leaks, wear or broken parts.

Monthly

- Check cleaning sequence of the baghouse.
- Check operation of all inlet and outlet dampers.
- Check the hoppers function and performance.

Annually

- Inspect baghouse compartment during annual outage.

Equipment Monitoring Methods

Performance of the baghouse may be monitored by observing differential pressure readings at the baghouse. A baghouse leak detection system that provides an alarm is installed in the system. Alarms are provided on the control system operator interface for high baghouse differential pressure, general baghouse trouble and ash system trouble.

Recordkeeping and Reporting

Operational records will be kept and maintained at the power plant for a period of five years and will be available for review upon request by the DNR. Records to be kept include:

- Preventative and corrective maintenance history will be maintained in the power plant CMMS.
- Reports - Semi-annual reports will be generated that include times and duration of all instances of data recorded that were outside of an indicated performance range. The report will also include a certification that corrective actions were promptly taken or a statement that all readings were within the performance range.
- Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring.
- A spare parts inventory will be maintained at the facility.

Quality Control

The following quality control measures will be implemented in association with the operation of the boiler 3 ash system baghouse:

- All instruments and equipment will be calibrated, maintained, and operated according to manufacturer specifications.
- Any visible emission in excess of 10 percent, except for one six-minute period per hour of not more than 20 percent, will be reported and corrective action will be taken to correct the problem.

This Operation and Maintenance Plan will be available for review at the power plant.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-199-5B

Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EUF-199-ASH-5B	#3 Ash System-Silo	Coal Ash	10 tons/hr	07-A-302

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-302
567 IAC 23.3(2)"c"

⁽¹⁾ No visible emissions shall be observed beyond the lot line.

Pollutant: Particulate Matter (PM)

Emission Limits: 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-302
567 IAC 23.3(2)"a"

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

There are no operational requirements at this time.

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-199-5C

Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-5C	#3 Ash System-Truck Loading	Coal Ash	20 tons/hr	07-A-303

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions ⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-303
567 IAC 23.3(2)"c"

⁽¹⁾ No visible emissions shall be observed beyond the lot line.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

There are no operational requirements at this time.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EP-199-6A

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
EU-199-ASH-6A	#4 Ash System Conveying	CE 199-6A1: Primary Mechanical Collector	Coal Ash	10 tons/hr	07-A-304-P1
		CE 199-6A2: Baghouse			

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): No Visible Emissions

Authority for Requirement: DNR Construction Permit 07-A-304-P1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-304-P1
567 IAC 23.3(2)"a"

Pollutant: PM₁₀

Emission Limit(s): 0.244 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-304-P1

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

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-304-P1

Pollutant: PM₁₀

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-304-P1

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

There are no operational requirements at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 16

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): 1,400

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 07-A-304-P1

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

Monitoring Requirements

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

Opacity Monitoring:

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake visible emissions readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

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-199-6B

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-6B	Ash Silo	CE-199-6B: Baghouse	Coal Ash	12 tons/hr	07-A-305-P2
EU-199-ASH-6C	#4 Ash System – Truck Loading			650 tons/hr	

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: DNR Construction Permit 07-A-305-P2
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-305-P2
567 IAC 23.3(2)"a"

Pollutant: PM₁₀

Emission Limit(s): 0.097 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-305-P2

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

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-305-P2

Pollutant: PM₁₀

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-305-P2

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall vent ash from around the loadout spout to the Baghouse (CE 199-6B) during all ash truck load out operations. The Baghouse (CE 199-6B) shall be maintained and operated according to the manufacturer's specifications. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the Baghouse (CE 199-6B). This log shall include, but is not necessarily limited to:
- The date and time any inspection and/or maintenance was performed on the Baghouse (CE 199-6B);
 - Any issues identified during the inspection and the date each issue was resolved;
 - Any issues addressed during the maintenance activities and the date each issue was resolved;
 - Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 07-A-305-P2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 1,100

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 07-A-305-P2

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

Monitoring Requirements

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

Opacity Monitoring:

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake visible emissions readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EP-199-6C

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-6C	#4 Ash System-Silo Truck Loading	CE-199-6C: Telescoping Chute	Coal Ash	650 tons/hr	07-A-306-P1

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions ⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-306-P1

⁽¹⁾ The owner or operator 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.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. Fugitive emissions shall be controlled using a Telescoping Chute (CE-199-6C). The Telescoping Chute (CE-199-6C) shall be used during all ash truck load out operations. The Telescoping Chute (CE-199-6C) shall be maintained and operated according to the manufacturer's specifications. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the Telescoping Chute (CE-199-6C). This log shall include, but is not necessarily limited to:
 - The date and time any inspection and/or maintenance was performed on the Telescoping Chute (CE-199-6C);
 - Any issues identified during the inspection and the date each issue was resolved;
 - Any issues addressed during the maintenance activities and the date each issue was resolved;
 - Identification of the staff member performing the maintenance or inspection.
- B. The owner or operator shall perform all ash truck load out operations in an enclosed area that has at least two permanent walls.

Authority for Requirement: DNR Construction Permit 07-A-306-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): Fugitive

Stack Opening, (inches, dia.): Fugitive

Exhaust Flow Rate (scfm): Fugitive

Exhaust Temperature (°F): Ambient

Discharge Style: Fugitive

Authority for Requirement: 07-A-306-P1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EP-199-7

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-LIME-7	#4 Limestone System - Silo Bin Vent	CE-199-7: Baghouse	Limestone	250 tons storage 17.1 tons/hr (silo input) 3000 lbs/hr (loadout to boiler)	07-A-307-P1

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 07-A-307-P1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-307-P1
567 IAC 23.3(2)"a"

Pollutant: PM₁₀

Emission Limit(s): 0.199 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-307-P1

BACT 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): 5%

Authority for Requirement: DNR Construction Permit 07-A-307-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-307-P1

Pollutant: PM₁₀

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-307-P1

Operating Requirements and Associated Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.
Authority for Requirement: DNR Construction Permit 07-A-307-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 98

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 1,000

Exhaust Temperature (°F): 100

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 07-A-307-P1

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

Monitoring Requirements

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

Opacity Monitoring:

The facility shall check for visible emissions weekly during a period when the emission unit on this emission point is in operation and record the observation. If weather conditions prevent the observer from conducting a visible emissions observation, the observer shall note such conditions on the data observation sheet. If visible emission observations are unsuccessful due to weather on a given day the visible emission observations will be attempted the following day. A visible emission observation shall be made the next day that weather conditions allow.

Observations shall be done to ensure that no visible emissions occur during the operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity > 5% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

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-199-8A

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-CHS-8A	Coal Handling System	CE-199-8A2: Baghouse	Coal Dust	100 tons/hr	92-A-656-S4

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 92-A-656-S4
40 CFR 60 Subpart Y
567 IAC 23.1(2)"v"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.13 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 92-A-656-S4
567 IAC 23.3(2)"a"

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The Plant Coal Handling System (EU 199-CHS-8A) shall operate intermittently (periods of intentional starts and stops throughout the day). NOTE: *Normal* operation for each operating period is expected to last for no more than 2 consecutive hours. This *does not apply* during periods of equipment maintenance and malfunction.
- (1) The owner or operator shall maintain documentation describing the normal operation of the Plant Coal Handling System (EU 199-CHS-8A) as well as what constitutes equipment maintenance and malfunction.
 - (2) The owner or operator shall maintain daily records of the number of hours that the Plant Coal Handling System (EU 199-CHS-8A) operates.

Control Equipment Requirements

- B. The owner or operator shall operate the baghouse (CE 199-8A2) whenever the Plant Coal Handling System (EU 199-CHS-8A) is in operation.
- C. The owner or operator shall operate, inspect, and maintain the baghouse (CE 199-8A2) according to the manufacturer's specifications and instructions.
- (1) The owner or operator shall conduct an inspection of the baghouse (CE 199-8A2) at a minimum of once per year and correct/repair any issues discovered during the inspection.
 - (2) The owner or operator shall keep a log of all maintenance and inspection

activities performed on the baghouse (CE 199-8A2). At a minimum, this log shall include the date that any inspection and/or maintenance was performed; any issues identified during inspection and maintenance activities; and the date each issue was resolved.

- D. The owner or operator shall maintain a differential pressure drop across the baghouse (CE 199-8A2) between 0.1- and 8-inches of water column.
- (1) The owner or operator shall install, operate, and maintain equipment necessary to monitor the differential pressure drop across the baghouse (CE 199-8A2). The equipment shall be installed, operated, and maintained according to the manufacturer's recommendations, instructions, and operating manuals.
 - (2) The owner or operator shall collect and record the differential pressure drop, in inches of water column, across the baghouse (CE 199-8A2) on a weekly basis while the Plant Coal Handling System (EU 199-CHS-8A) is operating.
 - (3) If the weekly differential pressure drop falls outside the required range, the owner or operator shall record the time, date, and actions taken to correct the situation. The owner or operator shall also record when the weekly differential pressure drop is back within the required range.
 - (4) The requirements in Permit Conditions D.(2) and D.(3) shall not apply during periods that the Plant Coal Handling System (EU 199-CHS-8A) and the baghouse (CE 199-8A2) are not in operation.

New Source Performance Standards Requirements

- E. The Plant Coal Handling System (EU 199-CHS-8A) is subject to 40 CFR Part 60, Subpart Y [§60.250 - §60.258]; therefore, the owner or operator shall comply with the applicable standards, including those not specifically mentioned in this permit.

NSPS and NESHAP Applicability

This emission unit is subject to Subparts A (*General Provisions*; 40 CFR §60.1 – 40 CFR §60.19) and Y (*Standards of Performance for Coal Preparation Plants*; 40 CFR §60.250 – 40 CFR §60.254) of the New Source Performance Standards (NSPS).

Authority for Requirement: DNR Construction Permit 92-A-656-S4
40 CFR 60 Subpart Y
567 IAC 23.1(2)"v"
40 CFR 60 Subpart A
567 IAC 23.1(2)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 109
Stack Opening, (inches): 222.00 x 328.56
Exhaust Flow Rate (scfm): 1,500
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 92-A-656-S4

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

emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Opacity Monitoring:

The facility shall check for visible emissions weekly during a period when the emission unit on this emission point is in operation and record the observation. If weather conditions prevent the observer from conducting a visible emissions observation, the observer shall note such conditions on the data observation sheet. If visible emission observations are unsuccessful due to weather on a given day the visible emission observations will be attempted the following day. A visible emission observation shall be made the next day that weather conditions allow.

Observations shall be done to ensure that no visible emissions occur during the operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity > 20% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EP-199-8B

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-CHS-8B	Coal System - Bunker #3 Silo	CE-199-8B: Baghouse	Coal	27.4 lb/hr	07-A-308-P1

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 07-A-308-P1
40 CFR 60 Subpart Y
567 IAC 23.1(2)"v"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: DNR Construction Permit 07-A-308-P1
567 IAC 23.3(2)"a"

Pollutant: PM₁₀

Emission Limit(s): 0.224 lb/hr

Authority for Requirement: DNR Construction Permit 07-A-308-P1

BACT 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): No Visible Emissions

Authority for Requirement: DNR Construction Permit 07-A-308-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-308-P1

Pollutant: PM₁₀

Emission Limit(s): 0.005 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-308-P1

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

This emission unit is subject to Subparts A (*General Provisions*, 40 CFR §60.1 – 40 CFR §60.19) and Y (*Standards of Performance for Coal Preparation Plants*, 40 CFR §60.250 – 40 CFR §60.254) of the New Source Performance Standards (NSPS).

This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

Authority for Requirement: DNR Construction Permit 07-A-308-P1
40 CFR 60 Subpart Y
567 IAC 23.1(2)"v"
40 CFR 60 Subpart A
567 IAC 23.1(2)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 74
Stack Opening, (inches): 11 x 13
Exhaust Flow Rate (scfm): 2,600
Exhaust Temperature (°F): 70
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 07-A-308-P1

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

Monitoring Requirements

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

Opacity Monitoring:

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake visible emissions readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

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 Numbers: EPF-199-9A, EPF-199-9D

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EPF-199-9A	EUF-199-COAL-9A	Coal Pile Receiving	CE-199-9A: Building Enclosure	Coal	50,565 tons/yr	07-A-309-P2
EPF-199-9D	EUF-199-COAL-9D	Coal Pile Reclaim Hopper	CE-199-9D: Building Enclosure	Coal	50,565 tons/yr	07-A-312-P2

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions⁽¹⁾

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

DNR Construction Permit 07-A-309-P2 and 07-A-312-P2

⁽¹⁾ No visible emissions shall be observed beyond the lot line.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

Operating Requirements and Associated Recordkeeping

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

- A. Fugitive emissions from each coal pile shall be controlled by building enclosure which minimizes exposure of the storage pile to the wind. In the event, visible emissions are observed outside of the building, UNI shall utilize other control methods, such as a dust suppressant and /or tarp, which are capable of achieving 95% control efficiency. Visible emissions shall be observed daily during coal transfer operations, a log shall be maintained showing the following for these emission units in this permit:
 - a. Date
 - b. And visible emission observation result; please see Condition C. below for additional requirements when visible emissions are observed.

- B. For every coal shipment received, the facility shall retain the supplier moisture content analysis of the amount of moisture, in weight %, in the coal. In the event moisture content of the coal as received is below 1.6%, UNI shall utilize other control methods, such as a dust suppressant and/or tarp, which are capable of achieving 95% control efficiency. Please see Condition C. below for additional requirements when the moisture content of the coal as received is less than 1.6%.
- C. If additional control methods are used, the following shall be recorded:
- a. The date of each application,
 - b. Whether or not a tarp is being used,
 - c. The chemical dust suppressant used,
 - d. The application intensity (gal/yd²),
 - e. Dilution ratio,
 - f. The operator's initials, and
 - g. Documentation of weather conditions
- D. The following records shall be kept monthly:
- a. Size of the pile, in tons

Authority for Requirement: DNR Construction Permits 07-A-309-P2 and 07-A-312-P2

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EPF-199-9B, EPF-199-9C

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EPF-199-9B	EUF-199-COAL-9B	Coal Pile Truck Traffic	Vehicle Traffic	50,565 tons/yr	07-A-310-P
EPF-199-9C	EUF-199-COAL-9C	Coal Pile Front End Loader Traffic	Vehicle Traffic	50,565 tons/yr	07-A-311-P

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions ⁽¹⁾

Authority for Requirement: DNR Construction Permit 07-A-310-P and 07-A-311-P
567 IAC 23.3(2)"c"

⁽¹⁾ No visible emissions shall be observed beyond the lot line.

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

Operational Limits & Reporting/Record keeping Requirements

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

Operating limits for this emission unit shall be:

A. The following conditions are required to meet the BACT work practice:

(1) For paved roads:

- (i) Fugitive emissions of paved haul roads shall be controlled to an effective control efficiency of 80% of the silt loading by either doing daily water flushing followed by sweeping or obtaining a sweeper that can meet a minimum of 80% control efficiency and doing daily sweeping. If UNI uses water flushing followed by sweeping to meet the 80% reduction of silt loading then it shall be achieved by water flushing followed by sweeping of the paved haul roads once per day with a water spray rate of a minimum of 0.23 gallons per square yard. (Note: the combination of paving the road and 80% control of the silt loading is equivalent to an overall control efficiency of 95 %.)
- (ii) If water flushing followed by sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be

- less than 35⁰F (1.7⁰C) or conditions due to weather, in combination with the application of the water, could create hazardous driving conditions, then the water flushing and sweeping shall be postponed and accomplished as soon after the scheduled date as the conditions preventing the application have abated.
- (iii) Water flushing and sweeping need not occur when a rain gage located at the site indicates that at least 0.2 inches of precipitation (water equivalent) has occurred within the preceding 24-hr time period or the paved road(s) will not be used on a given day.
- (2) For unpaved roads:
- (i) Fugitive emissions from unpaved haul roads shall be controlled by applying a dust suppressant. A control efficiency of 95% shall be maintained on all haul roads. UNI may elect to use any dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a dust suppressant recommends different amounts of dust suppressant or UNI chooses to use a different dust suppressant, UNI shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.
- (ii) If the selected chemical dust suppressant cannot be applied because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35⁰ F (1.7⁰ C) or conditions due to weather, in combination with the application of the chemical dust suppressant, could create hazardous driving conditions, then the chemical dust suppressant application shall be postponed and applied as soon after the scheduled application date as the conditions preventing the application have abated.

Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. A log showing the following for this emission unit:
- (1) The silt content of the road(s).
- (2) Paved roads:
- (i) Records of the applications shall be maintained and shall include
- The dates of each application,
 - The amount of water applied,
 - The areas treated, and
 - The operator's initials.
- (ii) If water is not applied when scheduled then the records should so indicate and provide an explanation.
- (3) Unpaved roads:
- (i) Records of the applications shall be maintained and shall include:
- The dates of each application,
 - The dust suppressant used,
 - The application intensity (gal/yd²),
 - Dilution ratio,
 - The operator's initials, and
 - Documentation of road and weather conditions, if necessary.
- (ii) If the selected dust suppressant is not applied as planned, then the records should so indicate and provide an explanation.

Authority for Requirement: DNR Construction Permits 07-A-310-P and 07-A-311-P

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: EPF-199-10A, EPF-199-10B, EPF-199-10C

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity
EPF-199-10A	EUJ-199-COKE-10A	Petroleum Coke Receiving	Petroleum Coke	70,080 tons/yr
EPF-199-10B	EUJ-199-COKE-10B	Petroleum Coke Pile	Vehicle Traffic	0.0189 VMT/hr
EPF-199-10C	EUJ-199-COKE-10C	Petroleum Coke Reclaim	Petroleum Coke	70,080 tons/yr

Applicable Requirements

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

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

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-199-11

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity
EP-199-11	EU-199-AST-11	Fuel Oil Storage Tank	Fuel Oil	474,776 gallons

Applicable Requirements

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

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

There are no applicable emission limits for this emission unit at this time.

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-199-12

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-DSI-12	DSI Silo #1	CE-199-12: Bin Vent Filter	Hydrated Lime	1,975 ft ³ max capacity 50,000 lb/hr max loading	15-A-300

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 15-A-300
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): 0.22 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 15-A-300
567 IAC 23.3(2)"a"

Pollutant: PM₁₀

Emission Limit(s): 0.22 lb/hr

Authority for Requirement: DNR Construction Permit 15-A-300

Operational Limits & Requirements

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

Operating limits for this emission unit shall be:

- A. The Bin Vent Filter (CE 199-12) shall be maintained according to the manufacturer's specifications.

Reporting and Recordkeeping:

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

- A. The owner or operator shall maintain a record of all inspections of the Bin Vent Filter (CE

199-12). The owner or operator shall document the results of the inspections and note any repairs that were the result of the inspections.

Authority for Requirement: DNR Construction Permit 92-A-656-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches): 38 x 38

Exhaust Flow Rate (scfm): 960

Exhaust Temperature (°F): 68

Discharge Style: Horizontal Authority for Requirement: DNR Construction Permit 92-A-656-S4

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-199-16

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-CT-1	Cooling Tower (3 Cells)	CE-199-16: Drift Eliminator 0.001%	Water	7,005 gal/min	20-A-031

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 20-A-031
567 IAC

⁽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): 0.16 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 20-A-031
567 IAC 23.3(2)"a"

Pollutant: PM₁₀

Emission Limit(s): 0.16 lb/hr

Authority for Requirement: DNR Construction Permit 20-A-031

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The facility shall not use any chromium based water treatment chemicals.
- B. The total dissolved solids (TDS) of the water used shall not exceed 3,000 parts per million (ppm) by weight.
 - a. Record the analysis of the TDS of the water used for each quarter this emission unit is in use.
- C. The facility-wide usage of VOC containing cooling tower chemical additives shall not exceed 2,925 gallons per twelve (12) month rolling period:
 - a. During the first twelve (12) months of operation determine the total amount of VOC containing cooling tower chemical additive used by the facility (plant number 07-02-006) for each month of operation. Purchase records may be used

to record usage if it is assumed that a full delivery is used within the month it is received.

- b. After the first twelve (12) months of operation determine the annual amount of VOC containing cooling tower chemical additive used by the facility (plant number 07-02-006) on a rolling twelve (12) month basis for each month of operation.
- D. The owner or operator shall not use VOC containing cooling module chemical additive with a VOC content exceeding 9.0 pounds per gallon.
- E. The owner or operator shall not use HAP containing cooling tower chemical additive.
- F. The owner or operator shall maintain Safety Data Sheets (SDSs) for cooling tower chemical additives used in this emission unit.
- G. The owner or operator shall operate, inspect and maintain all the equipment associated with the process and the Drift Eliminator 0.001% (CE-199-16) in accordance with manufacturer's specifications and maintenance schedule.
 - a. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection or maintenance of the Drift Eliminator 0.001% (CE-199-16).

Authority for Requirement: DNR Construction Permit 20-A-031

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 21
 Stack Opening, (inches, dia.): 142 for each cell
 Exhaust Flow Rate (scfm): 187,500 (total for 3 fans)
 Exhaust Temperature (°F): 106
 Discharge Style: Vertical, unobstructed
 Authority for Requirement: DNR Construction Permit 20-A-031

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

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

G1. Duty to Comply

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

G2. Permit Expiration

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

G3. Certification Requirement for Title V Related Documents

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

G4. Annual Compliance Certification

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

G5. Semi-Annual Monitoring Report

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

G6. Annual Fee

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

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

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

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information

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

G9. General Maintenance and Repair Duties

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

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

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
 - a. The date, place and time of sampling or measurements
 - b. The date the analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses; and
 - f. The operating conditions as existing at the time of sampling or measurement.
 - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:
 - a. Comply with all terms and conditions of this permit specific to each alternative scenario.
 - b. Maintain a log at the permitted facility of the scenario under which it is operating.
 - c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

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

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

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
 - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
 - b. Compliance test methods specified in 567 Chapter 25; or
 - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a. Any monitoring or testing methods provided in these rules; or
 - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

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

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

G13. Hazardous Release

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

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this

subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

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

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

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

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

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

with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

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

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

G15. Permit Deviation Reporting Requirements

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

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

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

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

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
 - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
 - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
 - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
 - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
 - e. The changes comply with all applicable requirements.
 - f. For each such change, the permitted source provides to the department and the

administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

- i. A brief description of the change within the permitted facility,
 - ii. The date on which the change will occur,
 - iii. Any change in emission as a result of that change,
 - iv. The pollutants emitted subject to the emissions trade
 - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
 - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
 - vii. Any permit term or condition no longer applicable as a result of the change.
- 567 IAC 22.110(1)*

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

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

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

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

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

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

- i. Correct typographical errors
- ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- iii. Require more frequent monitoring or reporting by the permittee; or
- iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

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

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

2. Minor Title V Permit Modification.

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

- i. Do not violate any applicable requirement;
- ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
- iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
- iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
- v. Are not modifications under any provision of Title I of the Act; and
- vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

- i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- ii. The permittee's suggested draft permit;
- iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

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

3. Significant Title V Permit Modification.

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

participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

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

G19. Duty to Obtain Construction Permits

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

G20. Asbestos

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

G21. Open Burning

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

G22. Acid Rain (Title IV) Emissions Allowances

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

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

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

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

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

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
 4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
 5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

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

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

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

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

G25. Permit Shield

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

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

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

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

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

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

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

G28. Transferability

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

G29. Disclaimer

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

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

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

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

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-9545

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

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

G31. Prevention of Air Pollution Emergency Episodes

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

567 IAC 26.1(1)

G32. Contacts List

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

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

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

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

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

Field Office 1

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

Field Office 2

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

Field Office 3

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

Field Office 4

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

Field Office 5

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

Field Office 6

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

Polk County Public Works Dept.

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

Linn County Public Health

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

V. Appendices

Appendix A: Compliance Assurance Monitoring (CAM) Plans

Boiler #3 Compliance Assurance Monitoring Plan

Baghouse for PM Control

I. Background

A. Emissions Unit:

Description: Boiler 3 (Coal and #2 Fuel Oil and Natural Gas)

Identification: EU-199-BLR-3

Facility: University of Northern Iowa Power Plant

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

Regulation No.: DNR Construction Permit 07-A-301-P5

Particulate emission limit: 58.3 lbs/hr (Federal), 0.2 lb/MMBtu (State)

PM₁₀ Emission Limit: Combined stack emission limit 64.73 lb/hr

Opacity emission limit: 40%

Current Monitoring requirements: Stack Testing
Baghouse alarms for high differential pressure, high inlet temperature, high outlet temperature and high ash hopper
Main fan failure alarm
COMS for Boiler MACT compliance

C. Control Technology: Baghouse (Reverse air and shaker)

II. Monitoring Approach

General Monitoring Guidelines

- CAM involves the observation of control equipment compliance indicators: differential pressure across the baghouse and fan amperage. This plan defines acceptable ranges for these indicators. CAM also includes control equipment inspections when excursions of the indicator have taken place and possible corrective action and maintenance, if necessary.
- Monitoring is not required during periods of time greater than one day in which the source does not operate.

Excursion from Compliance Indicators

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range during normal operations, not including startup and shutdown events. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion must be reported in the Annual Compliance Certification Report.
- Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion.

1. Indicator	Differential Pressure Across Baghouse	Fan Amperage
Measurement Approach	Daily inspection of differential pressure across the bags in the baghouse.	Fan amperage is measured continuously using an ammeter.
2. Indicator Range	<ul style="list-style-type: none"> An excursion is defined as a differential pressure reading across the baghouse outside 2.5” – 10” W. C. Excursions trigger an inspection, corrective action and a recordkeeping requirement. 	Fan amperage above 100 indicates the fan is operating and the control device is not being bypassed.
3. Performance Criteria		
A. Data Representativeness	<ul style="list-style-type: none"> An observation of the differential pressure below 2.5” W.C. or above 10” W.C. across the baghouse could reveal a decrease in the performance of the control equipment and potentially result in an increase of PM₁₀ emissions if corrective actions are not initiated. 	Fan amperage is measured continuously at the fan by an ammeter. A reading below 100 could indicate improper fan operation or inadequate airflow to baghouse which could result in emissions bypassing the control device.
B. Recordkeeping and Reporting (Verification of Operational Status)	<ul style="list-style-type: none"> Daily pressure drop readings Record any excursions and corrective actions, inspections and maintenance resulting from readings outside the indicator range. 	<ul style="list-style-type: none"> Indicator lights identify control equipment bypass. Record any excursions and corrective actions, inspections and maintenance resulting from fan amperage below indicator range.
C. QA/QC Practices and Criteria	<ul style="list-style-type: none"> All instruments and control equipment will be calibrated, maintained, and operated according to the manufacturer specifications. 	Fans checked daily during inspection. Ammeter zeroed when unit not operating.
D. Monitoring Frequency	<ul style="list-style-type: none"> The differential pressure will be monitored continuously when the baghouse is operating. Alarms are activated on the control system operator interface for high baghouse differential pressure, high baghouse inlet and high baghouse outlet temperatures, and high ash hopper. 	<ul style="list-style-type: none"> Fan amps are monitored continuously and logged by operator once an hour. Main fan failure alarm triggered if ID fan shuts down unexpectedly.

E. Data Collection Procedures	<ul style="list-style-type: none"> • Differential pressure readings are recorded in the plant information system and will be maintained for 5 years. • The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. • Operator logs and maintenance records will be kept for 5 years. 	<ul style="list-style-type: none"> • Fan amps monitored continuously. The operators log the reading once an hour. • The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. Operator logs and maintenance records will be kept for 5 years.
F. Averaging Period	None	None

III. Justification

A. Background

The pollutant specific emission unit is the pulsed air baghouse that controls particulate emissions from the boiler. Daily baghouse operating requirements include monitoring and evaluation of various parameters, recordkeeping, preventative maintenance, and the appropriate response to any malfunctions. Fly ash collected by the baghouse is removed from hoppers on the bottom of the baghouse by a pneumatic ash conveying system.

B. Rationale for Selection of Performance Indicator

Continuous differential pressure monitoring was selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. A pressure drop greater than 10" W.C. or less than 2.5" W.C. is indicative of a potential increase in particulate emissions due to a decrease in the performance of the baghouse. Therefore, the detection of excessive or minimal pressure drop is used as a performance indicator. Fan amperage was selected as a secondary indicator. Good operation of the fan is essential for maintaining the required air flow through the baghouse. The fan amps setting is selected to be high enough to draw the air required to collect the dust from the boiler. Excess gas velocity can cause seepage of dust particles through the dust cake and fabric. Fan amperage is an indicator of proper fan operation and adequate airflow through the baghouse (the exhaust gas is not bypassing the baghouse).

Baghouse performance assessments may be accomplished by reviewing the daily operating logs and monitoring boiler 3 operator interfaces. Certain boiler transients produce temporary baghouse differential pressure excursions. Examples include sootblowing operations and rapid changes in boiler load. However, these transients should not produce a noticeable change in opacity.

Preventive Maintenance is scheduled using a computerized maintenance management system (CMMS) and is used to keep the baghouse operating in good condition. The maintenance

schedule includes weekly inspections of reverse air fan, motor, valves, and duct work for proper operation; weekly inspections of hopper grates and piping for signs of jamming, leaks, wear or broken parts; monthly inspections of cleaning sequence of the baghouse, operation of inlet and outlet dampers, and hopper function and performance; and annual inspections of baghouse compartments during annual outage.

C. Rationale for Selection of Indicator Level

Differential pressures between 2.5" and 10" are indicative of normal operations of the baghouse. If a differential pressure outside this range is noted, corrective action will be taken within 8 hours. The changes in pressure drop were selected as the indicator range because a pressure drop greater than 10" or less than 2.5" is indicative of a potential increase in particulate emissions due to a decrease in the performance of this baghouse. If the baghouse is operating properly, the pressure drop will be within the identified range, except during periods of startup, shutdown, or upset conditions.

Fan amperage greater than 100 indicates that the control equipment is not being bypassed. This range was selected because it is the level maintained during normal operation.

The selected quality improvement plan (QIP) threshold for the baghouse is 6 excursions in a 6-month reporting period. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Boiler #4 Compliance Assurance Monitoring Plan

Baghouse for PM and PM10 Control

I. Background

A. Emissions Unit:

Description: Boiler 4 (Coal/Petroleum Coke/Natural Gas)
Identification: EU-199-BLR-4
Facility: University of Northern Iowa Power Plant

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

Regulation No.: DNR Construction Permit 07-A-301-P5
Particulate emission limit: 0.051 lb/MMBtu (Federal), 0.035 lb/MMBtu
PM₁₀ Emission Limit 0.033 lb/MMBtu
Opacity emission limit: 20% 6-minute average except for one 6-minute period per hour of not more than 27%; 5% 1-hour average
Current Monitoring requirements: Stack Testing
Continuous opacity monitoring system (COMS)
Baghouse alarms for high differential pressure, high inlet temperature, high outlet temperature and high ash hopper.

C. Control Technology: Baghouse (Pulsed air)

II. Monitoring Approach

General Monitoring Guidelines

- CAM involves the observation of control equipment compliance indicators: differential pressure across the baghouse and one hour opacity average from the opacity monitor. This plan defines acceptable ranges for these indicators. CAM also includes control equipment inspections when excursions of the indicator have taken place and possible corrective action and maintenance, if necessary.
- Monitoring is not required during periods of time greater than one day in which the source does not operate.

Excursion from Compliance Indicators

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range during normal operations, not including startup and shutdown events. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion must be reported in the Annual Compliance Certification Report.
- Corrective actions will begin as soon as possible, but no later than eight hours from the observation of the excursion.

1. Indicator	Differential Pressure Across Baghouse	Continuous Opacity Monitoring System
Measurement Approach	Daily inspection of differential pressure across the bags in the baghouse.	Six-Minute Opacity Average
2. Indicator Range	<ul style="list-style-type: none"> • An excursion is defined as a differential pressure reading across the baghouse outside 2.5" – 10" W. C. • Excursions trigger an inspection, corrective action and a recordkeeping requirement. 	<ul style="list-style-type: none"> • An excursion is defined as six-minute opacity average that exceeds 10%, except for one six-minute period per hour of not more than 20%. Excursions trigger an inspection, corrective action and a recordkeeping requirement.
3. Performance		
A. Data Representativeness	<ul style="list-style-type: none"> • An observation of the differential pressure below 2.5" W.C. or above 10" W.C. across the baghouse could reveal a decrease in the performance of the control equipment and potentially result in an increase of particulate emissions if corrective actions are not initiated. 	<ul style="list-style-type: none"> • Install the COMS at a representative location in the baghouse exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1). • An observation of a six-minute opacity average greater than 10% could reveal a decrease in the performance of the control equipment and potentially result in an increase of particulate emissions if corrective actions are not initiated.
B. Recordkeeping and Reporting (Verification of Operational Status)	<ul style="list-style-type: none"> • Daily pressure drop readings • Record any excursions and corrective actions, inspections and maintenance resulting from readings outside the indicator range. 	<ul style="list-style-type: none"> • Whenever the opacity is greater than 10%, document the duration and cause if known, corrective actions taken and any inspections and maintenance conducted. • Results of initial COMS performance evaluation conducted per PS-1 (February 1, 1991).

C. QA/QC Practices and Criteria	<ul style="list-style-type: none"> All instruments and control equipment will be calibrated, maintained, and operated according to the manufactures specifications. 	<ul style="list-style-type: none"> Install and evaluate the COMS per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily.
D. Monitoring Frequency	<ul style="list-style-type: none"> The differential pressure will be monitored continuously when the baghouse is operating. Alarms are activated on the control system operator interface for high baghouse differential pressure, high baghouse inlet, high baghouse outlet temperatures, and high ash hopper. 	<ul style="list-style-type: none"> Record all excursion events. Monitor the opacity of the baghouse exhaust continuously (every 10 seconds).
E. Data Collection Procedures	<ul style="list-style-type: none"> Differential pressure readings are recorded in the plant information system and will be maintained for 5 years. The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. Operator logs and maintenance records will be kept for 5 years. 	<ul style="list-style-type: none"> Set up the data acquisition system (DAS) to retain all 6-minute and hourly average opacity data. Opacity reports will be kept for 5 years.
F. Averaging Period	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Use the 10-second opacity data to calculate 6-minute averages. Use the 6-minute averages to calculate the hourly block average opacity.

III. Justification

A. Background

The pollutant specific emission unit is the pulsed air baghouse that controls particulate emissions from the boiler. Daily baghouse operating requirements include monitoring and evaluation of various parameters, recordkeeping, preventative maintenance, and the appropriate response to any malfunctions. Fly ash collected by the baghouse is removed from hoppers on the bottom of the baghouse by a pneumatic ash conveying system.

B. Rationale for Selection of Performance Indicator

Continuous differential pressure monitoring was selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. A pressure drop greater than 10" W.C. or less than 2.5" W.C. is indicative of a potential increase in particulate emissions due to a decrease in the performance of the baghouse. Therefore, the detection of excessive or minimal pressure drop is used as a performance indicator. The opacity reading from the continuous opacity monitor (COM) system was selected as a secondary indicator.

Baghouse performance assessments may be accomplished by reviewing the daily operating logs and monitoring boiler 4 operator interfaces. Certain boiler transients produce temporary baghouse differential pressure excursions. Examples include sootblowing operations and rapid changes in boiler load. However, these transients should not produce a noticeable change in opacity.

Preventive Maintenance is scheduled using a computerized maintenance management system (CMMS) and is used to keep the baghouse operating in good condition. The maintenance schedule includes weekly inspections of reverse air fan, motor, valves, and duct work for proper operation; weekly inspections of hopper grates and piping for signs of jamming, leaks, wear or broken parts; monthly inspections of cleaning sequence of the baghouse, operation of inlet and outlet dampers, and hopper function and performance; and annual inspections of baghouse compartments during annual outage.

C. Rationale for Selection of Indicator Level

Differential pressures between 2.5" and 10" are indicative of normal operations of the baghouse. If a differential pressure outside this range is noted, corrective action will be taken within 8 hours. The changes in pressure drop were selected as the indicator range because a pressure drop greater than 10" or less than 2.5" is indicative of a potential increase in particulate emissions due to a decrease in the performance of this baghouse. If the baghouse is operating properly, the pressure drop will be within the identified range, except during periods of startup, shutdown, or upset conditions.

The opacity action level of 10% is used to ensure early detection of problems and compliance with the 6-minute average limit for the unit of 20%; 1-hour average of 5%. If the opacity of 10% is exceeded, the system will be inspected and corrective action will be taken. This value was based on the opacity limit for the boiler and on knowledge of past performance of the baghouse. An opacity reading greater than 10% would be indicative that there is a problem with the baghouse.

The selected quality improvement plan (QIP) threshold for the baghouse is 6 excursions in a 6-month reporting period. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Appendix B:

NSPS and NESHAP Weblinks

- A. 40 CFR 60 Subpart A – General Provisions.
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-A>
- B. 40 CFR 60 Subpart Db – Standards of Performance for Performance for Industrial-Commercial-Institutional Steam Generating Units.
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Db>
- C. 40 CFR 60 Subpart Y – Standards of Performance for Coal Preparation Plants and Processing Plants.
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Y>
- D. 40 CFR 63 Subpart A – General Provisions.
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-A>
- E. 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-DDDDD>