

**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-022R1
Expiration Date: 5/9/2018
Permit Renewal Application Deadline: 11/9/2017

EIQ Number: 92-5192
Facility File Number: 07-02-006

Responsible Official

Name: Mr. Michael Hager
Title: Vice President, Administration & Finance
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Permit Contact Person for the Facility

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Title: Power Plant Operations Manager
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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit. Two separate Title V Permits are being 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-016 has been issued for the Main Campus.

For the Director of the Department of Natural Resources

Lori Hanson, Supervisor of Air Operating Permits Section

Date

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Abbreviations

acfm	actual cubic feet per minute
CFR	Code of Federal Regulation
CE	control equipment
CEM	continuous emission monitor
°F	degrees Fahrenheit
EIQ	emissions inventory questionnaire
EP	emission point
EU	emission unit
gr./dscf	grains per dry standard cubic foot
gr./100 cf	grains per one hundred cubic feet
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-022R1

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	
EP-199-2	EU-199-BLR-2	Boiler #2	
EP-199-3	EU-199-BLR-3	Boiler #3	07-A-301-S1-P
	EU-199-BLR-4	Boiler #4	
EP-199-5A	EU-199-ASH-5A	#3 Ash System-Conveying	78-A-164-S1
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-S1-P
EP-199-6B	EU-199-ASH-6B	#4 Ash System-Silo Bin Vent	07-A-305-S1-P
EP-199-6C	EU-199-ASH-6C	#4 Ash System-Silo Bin Vent	07-A-306-P
EP-199-7	EU-199-LIME-7	#4 Limestone System-Silo Bin Vent	07-A-307-P
EP-199-8A	EU-199-CHS-8A	Coal System-Plant Coal Handling	92-A-656-S3
EP-199-8B	EU-199-CHS-8B	Coal System-Bunker #3 Silo	07-A-308-S1-P
EPF-199-9A	EU-199-COAL-9A	Coal Pile Receiving	07-A-309-P
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-199-9D	EU-199-COAL-9D	Coal Pile Reclaim Hopper	07-A-312-P
EPF-199-10A	EU-199-COKE-10A	Petroleum Coke Receiving	
EPF-199-10B	EU-199-COKE-10B	Petroleum Coke Pile	
EPF-199-10C	EU-199-COKE-10C	Petroleum Coke Reclaim	
EP-199-11	EU-199-AST-11	Fuel Oil Storage Tank	

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-ASH-6C	#4 Ash System – Fugitive Truck Loading
EU-199-ASH-5C	#3 Ash System – Fugitive Truck Loading
EU-199-ASH-5B	#3 Ash System – Bin Vent
EU-199-LUBE-13	Lube Oil Vapor Extractor
EU-199-AST-12	Vehicle Fuel Storage Tank

II. Plant-Wide Conditions

Facility Name: University of Northern Iowa – Power Plant
Permit Number: 04-TV-022R1

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: 5/10/2013
Ending on: 5/9/2018

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

Emission Limits

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

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

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

Particulate Matter:

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

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

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

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The

highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

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

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

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

The facility is subject to 40 CFR 63 Subpart A – NESHAP General Provisions.

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

<http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol9/pdf/CFR-2011-title40-vol9-part63-subpartA.pdf>

The emission unit, 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: 567 IAC 23.1(2)"ccc"
40 CFR 60 Parts A and Db (See Link below)

<http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol6/pdf/CFR-2011-title40-vol6-part60-subpartDb.pdf>

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

Authority for Requirement: 567 IAC 23.1(4)"dd"
40 CFR 63 Subpart DDDDD (See Link below)

<http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol13/pdf/CFR-2011-title40-vol13-part63-subpartDDDDD.pdf>

The emission unit, Coal System-Plant Coal Handling (EU 199-CHS-8A) 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: 567 IAC 23.3(2)"v"

40 CFR 60 Subpart Y (See Link below)

<http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol6/pdf/CFR-2011-title40-vol6-part60-subpartY.pdf>

III. Emission Point-Specific Conditions

Facility Name: University of Northern Iowa – Power Plant
 Permit Number: 04-TV-022R1

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

Associated Equipment

EP	EU	EU Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity
EP-199-1	EU-199-BLR-1	Boiler #1	NA	NA	Natural Gas/ #2 Fuel Oil	83.8 MMBtu/hr
EP-199-2	EU-199-BLR-2	Boiler #2	NA	NA	Natural Gas/ #2 Fuel Oil	83.8 MMBtu/hr

Applicable Requirements

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

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

EP-199-1; EU-199-BLR-1 and EP-199-2; EU-199-BLR-2

Pollutant: Opacity

Emission Limits: 40 %

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

Pollutant: Particulate Matter

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 & Requirements

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

Emission Units EU-199-BLR-1 and EU-199-BLR-2

Process throughput:

- 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:

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

- 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

EP	EU	EU Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity
EP-199-3	EU-199-BLR-3	Boiler #3	Baghouse (CE 199-3) for Boiler 3 and Low NO _x Burners (LNB), Secondary Air, Baghouse, and Limestone Injection (CE 199-4) for Boiler 4	NA	Coal/ #2 Fuel Oil	163.6 MMBtu/hr
	EU-199-BLR-4	Boiler #4		ME-199-4: SO ₂ , NO _x , Diluent CO ₂ , Opacity	Coal/ Petroleum Coke/ Natural Gas	143.1 MMBtu/hr

Applicable Requirements

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

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

EP-199-3; EU-199-BLR-3, Boiler #3

Pollutant: Opacity

Emission Limits: 40 %

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

Pollutant: Particulate Matter (Federal)

Emission Limits: 58.3 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Particulate Matter (State)

Emission Limit(s): 0.2 lb/MMBTU

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

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 2,222.6 Tons/year⁽¹⁾, 6 lb/MMBtu

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

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Nitrogen Oxide (NO_x)
Emission Limits: 295.99 Tons/year ⁽¹⁾
Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Carbon Monoxide (CO)
Emission Limits: 185.6 Tons/year ⁽¹⁾
Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

⁽¹⁾ Standard is a twelve month rolling total.

EP-199-3; EU-199-BLR-4, Boiler #4, BACT Emission Limits

Pollutant: Opacity
Emission Limits: 5 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀
Emission Limits: 0.033 lb/MMBTU
Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Particulate Matter
Emission Limits: 0.035 lb/MMBTU
Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Sulfur Dioxide (SO₂)
Emission Limits: 187.7 Tons/year ⁽¹⁾, 95% reduction ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Nitrogen Oxide (NO_x)
Emission Limits: 69.0 Tons/year ⁽¹⁾, 0.11 lb/MMBTU
Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

⁽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.

EP-199-3; EU-199-BLR-4, Boiler #4, NSPS & Synthetic Minor Emission Limits

Pollutant: Opacity

Emission Limits: 20 % ⁽¹⁾

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

Authority for Requirement: 567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Particulate Matter (Federal)

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

Authority for Requirement: 567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Sulfur Dioxides (SO₂)

Emission Limits: See Footnote ⁽²⁾

Authority for Requirement: 567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Nitrogen Oxides (NO_x)

Emission Limits: 260 ng/J (0.60 lb/MMBTU)

Authority for Requirement: 567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Carbon Monoxide (CO)

Emission Limits: 22.6 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

⁽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.

EP-199-3 Stack Emission Limits

Pollutant: PM₁₀

Emission Limits: 64.73 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Sulfur Dioxides (SO₂)

Emission Limits: 1067.67 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Nitrogen Oxide (NO_x)

Emission Limits: 113.53 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant: Carbon Monoxide (CO)

Emission Limits: 65.09 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

Boiler 3 is not subject to the New Source Performance Standards (NSPS) at this time.

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: Iowa DNR Construction Permit 07-A-301-S1-P
567 IAC 23.1(2)"ccc"
40 CFR 60 Parts A and Db

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

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD

Operating Limits:

Operating limits for this emission unit shall be:

- A. Boiler 3 is limited to firing on coal and oil.
- B. Boiler 4 is limited to firing on coal and petroleum coke.
- C. The sulfur content of the fuel used shall not exceed 6.0% (by weight).
- D. The combined steam production from Boilers 3 & 4 shall not exceed 211,500 lb/hr.
- E. Boiler 4 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).

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

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. 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.
- B. The 30-day rolling average for SO₂ reduction for Boiler 4.
- C. The hourly steam production for each boiler along with the combined total steam production.
- D. 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).

Authority for Requirement: Iowa DNR Construction Permit 07-A-301-S1-P

Emission Point Characteristics

The 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: Iowa DNR Construction Permit 07-A-301-S1-P

The temperature and flow rate 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 design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

Continuous Emission Monitoring:

Pollutant - Opacity

Operational Specifications - 40 CFR Part 60 Subpart Db

Date of Initial System Calibration and Quality Assurance - February 1, 1991

Ongoing System Calibration/Quality Assurance –As found in 40 CFR Part 60 Subpart Db

Reporting & Record keeping – As found in 40 CFR Part 60 Subpart Db. Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring and the 20% opacity (visible emissions) limit.

Authority for Requirement: 40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant – SO₂

Operational Specifications - 40 CFR Part 60 Subpart Db

Date of Initial System Calibration and Quality Assurance – February 1, 1991

Ongoing System Calibration/Quality Assurance –As found in 40 CFR Part 60 Subpart Db

Reporting & Record keeping – As found in 40 CFR Part 60 Subpart Db. Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with the SO₂ emission limit for boiler 4.

Authority for Requirement: 40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Pollutant - NO_x

Operational Specifications - 40 CFR Part 60 Subpart Db

Date of Initial System Calibration and Quality Assurance - February 1, 1991

Ongoing System Calibration/Quality Assurance –As found in 40 CFR Part 60 Subpart Db

Reporting & Record keeping – As found in 40 CFR Part 60 Subpart Db. Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with the NO_x emission limit for boiler 4.

Authority for Requirement: 40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

Other Parameters:

Pollutant – Diluent Carbon Dioxide (CO₂)

Operational Specifications - 40 CFR Part 60 Subpart Db

Initial System Calibration/Quality Assurance – 2/1/1991

Ongoing System Calibration/Quality Assurance - 40 CFR Part 60 Subpart Db

Reporting & Record keeping - 40 CFR Part 60 Submit all reports and petitions required by 40 CFR 60 Subpart Db to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring.

Authority for Requirement: 40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

Iowa DNR Construction Permit 07-A-301-S1-P

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

Authority for Requirement – 567 IAC 22.108(3)

In accordance with 40 CFR §60.48b(a), the facility (plant number 07-02-006) 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 facility (plant number 07-02-006) 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 SO₂ 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 facility (plant number 07-02-006) shall meet the requirements of 40 CFR §60.47b for monitoring of SO₂ emissions.

In accordance with 40 CFR §60.47b(b), the facility (plant number 07-02-006) 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 facility (plant number 07-02-006) shall meet the requirements of 40 CFR §60.48b for monitoring of NO_x emissions.

For SO₂, the facility (plant number 07-02-006) 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 Condition 15.A.

For NO_x, the facility (plant number 07-02-006) 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 more than thirty (30) day in that quarter. If the boiler operates in two (2) consecutive quarters the 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 facility (plant number 07-02-006) 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 more than thirty (30) days in that quarter. If the boiler operates in two (2) consecutive quarters the 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.

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:

- (1) 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.

- (2) 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.
- (3) For each hour of missing emission data (NO_x, SO₂, or CO), the owner or operator shall substitute data by:
 - A. 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 an 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.
 - B. 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.
 - C. 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: 07-A-301-S1-P

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-199-5A

Associated Equipment

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-5A	#3 Ash System-Conveying	Primary Mechanical Collector (CE 199-5A1), Secondary Mechanical Collector (CE 199-5A2), and Baghouse (CE 199-5A3)	Coal Ash	10 tons/hr	78-A-164-S1

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⁾

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

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

Iowa DNR Construction Permit 78-A-164-S1

Pollutant: PM₁₀

Emission Limit(s): 0.223 lbs/hr

Authority for Requirement: Iowa DNR Construction Permit 78-A-164-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(1)"a"

Iowa DNR Construction Permit 78-A-164-S1

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): 1,300
- Exhaust Temperature (°F): 70
- Discharge Style: Downward
- Authority for Requirement: Iowa DNR Construction Permit 78-A-164-S1

The temperature and flow rate 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 design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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, ASH SYSTEM -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

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-5B	#3 Ash System-Silo	NA	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⁾

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

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

Pollutant: Particulate Matter

Emission Limits: 0.1 gr/scf

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

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

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-5C	#3 Ash System-Truck Loading	NA	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⁾

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

Authority for Requirement: Iowa DNR Construction Permit 07-A-303

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 Numbers: EP-199-6A, EP-199-6B

Associated Equipment

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP-199-6A	EU-199-ASH-6A	#4 Ash System-Conveying	Primary Mechanical Collector (CE 199-6A1), and Baghouse (CE 199-6A2)	Coal Ash	10 tons/hr	07-A-304-S1-P
EP-199-6B	EU-199-ASH-6B	#4 Ash System-Silo Bin Vent	CE-199-6B: Baghouse	Coal Ash	12 tons/hr	07-A-305-S1-P

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.

EP	Opacity 567 IAC 23.3(2)"d"	PM ₁₀	PM 567 IAC 23.3(2)"a"	Authority for Requirement
EP-199-6A	40%	0.244 lbs/hr	0.1 gr/scf	07-A-304-S1-P
EP-199-6B	40%	0.097 lbs/hr	0.1 gr/scf	07-A-305-S1-P

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

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

EP	Opacity	PM ₁₀	PM (State)	Authority for Requirement
EP-199-6A	5%	0.005 gr/dscf	0.005 gr/dscf	07-A-304-S1-P
EP-199-6B	5%	0.005 gr/dscf	0.005 gr/dscf	07-A-305-S1-P

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia.)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
EP-199-6A	16	8	1,400	70	Horizontal	07-A-304-S1-P
EP-199-6B	70	6	1,100	70	Horizontal	07-A-305-S1-P

The temperature and flow rate 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 design

characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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.

Authority for Requirement – Iowa DNR Construction Permit 07-A-304-S1-P and 07-A-305-S1-P

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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: EP-199-6C

Associated Equipment

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP-199-6C	EU-199-ASH-6C	#4 Ash System-Silo Truck Loading	None	Coal Ash	650 tons/hr	07-A-306-P

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⁾

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

Authority for Requirement: Iowa DNR Construction Permit 07-A-306-P

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 & Requirements

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

Operating Limits:

Operating limits for this emission unit shall be:

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

(1) Fugitive emissions shall be controlled by applying a dust suppressant. A control efficiency of 95% shall be maintained. 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 dust suppressant and the manufacturer's/distributor's recommendations.

(2) If the selected dust suppressant cannot be applied because the ambient air temperature (as measured at the facility during operating hours) will be less than 35⁰ F (1.7⁰ C) or other conditions due to weather cause the chemical dust suppressant to not be applied then the 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:

All records as required by this permit shall be kept for a minimum of five (5) years. The most recent two (2) years shall be maintained on-site and shall be available for inspection by the DNR. The remaining three (3) years, the records may be maintained off site. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. A log showing the following for the emission unit in this permit:

(1) The date and size of the pile

(2) Records of the applications shall be maintained and shall include:

- The dates of each application,
- The chemical dust suppressant used,
- The application intensity (gal/yd²),
- Dilution ratio,
- The operator’s initials, and
- Documentation of weather conditions, if necessary.

(3) If the selected chemical dust suppressant is not applied as planned, then the records should so indicate and provide an explanation.

Authority for Requirement: 07-A-306-P

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

EP	EU	EU Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity
EP-199-7	EU-199-LIME-7	#4 Limestone System-Silo	CE-199-7: Baghouse	Limestone	10 tons/hr	10 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.

EP	Opacity 567 IAC 23.3(2)"d"	PM ₁₀	PM 567 IAC 23.3(2)"a"	Authority for Requirement
EP-199-7	40%	0.199 lbs/hr	0.1 gr/scf	07-A-307-P

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

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

EP	Opacity	PM ₁₀	PM (State)	Authority for Requirement
EP-199-7	5%	0.005 gr/dscf	0.005 gr/dscf	07-A-307-P

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

EP	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia.)	Exhaust Flow Rate (scfm)	Exhaust Temperature (8F)	Discharge Style	Authority for Requirement
EP-199-7	98	6	2,300	70	Horizontal	07-A-307-P

The temperature and flow rate 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 design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-CHS-8A	Coal System- Plant Coal Handling	CE-199-8A: Baghouse	Coal Dust	100 tons/hr	92-A-656-S3

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: 40 CFR 60 Subpart Y
567 IAC 23.1(2)"v"
Iowa DNR Construction Permit 92-A-656-S3

Pollutant: PM₁₀

Emission Limit(s): 1.01 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 92-A-656-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf, 1.01 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 92-A-656-S3

Operational Limits & Requirements

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

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 109

Stack Opening, (inches): 18.5 x 27.375

Exhaust Flow Rate (scfm): 5,900

Exhaust Temperature (8F): 70

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 92-A-656-S3

The temperature and flow rate 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 design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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).

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

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: EP-199-8B

Associated Equipment

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP-199-8B	EU-199-CHS-8B	Coal System-Bunker #3 Silo	CE-199-8B: Baghouse	Coal	27.4 lbs/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.

EP	Opacity 567 IAC 23.1(2)"v" ¹	PM ₁₀	PM 567 IAC 23.3(2)"a"	Authority for Requirement
EP-199-8B	20%	0.244 lbs/hr	0.1 gr/scf	07-A-308-P1

¹ IAC reference to NSPS Subpart Y (*Standards of Performance for Coal Preparation Plants*; 40 CFR §250 – 40 CFR §254).

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

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

EP	Opacity	PM ₁₀	PM (State)	Authority for Requirement
EP-199-8B	No Visible Emissions (No VE) ¹	0.005 gr/dscf	0.005 gr/dscf	07-A-308-P1

¹ A "No VE" limit with opacity testing is required in lieu of compliance testing for PM and PM₁₀.

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: Iowa DNR Construction Permit 07-A-308-P1

The temperature and flow rate 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 design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

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: Iowa DNR Construction Permit 07-A-308-P1

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.

Authority for Requirement – Iowa DNR Construction Permit 07-A-308-P1

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

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EPF-199-9A	EU-199-COAL-9A	Coal Pile Receiving	NA	Coal	50,565 tons/yr	07-A-309-P
EPF-199-9D	EU-199-COAL-9D	Coal Pile Reclaim Hopper	NA	Coal	50,565 tons/yr	07-A-312-P

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 ⁽¹⁾

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

Authority for Requirement: Iowa DNR Construction Permit 07-A-309-P and 07-A-312-P

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"

Iowa DNR Construction Permits 07-A-309-P and 07-A-312-P

Operational Limits & Requirements

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

Operating Limits:

Operating limits for this emission unit shall be:

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

- (1) Fugitive emissions shall be controlled by applying a dust suppressant. A control efficiency of 95% shall be maintained. 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 dust suppressant and the manufacturer's/distributor's recommendations.

- (2) If the selected dust suppressant cannot be applied because the ambient air temperature (as measured at the facility during operating hours) will be less than 35⁰ F (1.7⁰ C) or other conditions due to weather cause the chemical dust suppressant to not be applied then the 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:

All records as required by this permit shall be kept for a minimum of five (5) years. The most recent two (2) years shall be maintained on-site and shall be available for inspection by the DNR. The remaining three (3) years, the records may be maintained off site. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. A log showing the following for the emission unit in this permit:

(1) The date and size of the pile.

(2) Records of the applications shall be maintained and shall include:

- The dates of each application,
- Whether or not a tarp is being used,
- The chemical dust suppressant used,
- The application intensity (gal/yd²),
- Dilution ratio,
- The operator's initials, and
- Documentation of weather conditions, if necessary.

(3) If the selected chemical dust suppressant is not applied as planned, then the records should so indicate and provide an explanation.

Authority for Requirement: Iowa DNR Construction Permits 07-A-309-P and 07-A-312-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-199-9B, EPF-199-9C

Associated Equipment

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EPF-199-9B	EUF-199-COAL-9B	Coal Pile Truck Traffic	NA	Vehicle Traffic	50,565 tons/yr	07-A-310-P
EPF-199-9C	EUF-199-COAL-9C	Coal Pile Front End Loader Traffic	NA	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 these emission points shall not exceed the levels specified below.

Pollutant: Opacity

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

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

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

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"

Iowa DNR Construction Permits 07-A-310-P and 07-A-311-P

Operational Limits & Requirements

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

Operating Limits:

Operating limits for this emission unit shall be:

A. The 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 35⁰ F (1.7⁰ C) 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:

All records as required by this permit shall be kept for a minimum of five (5) years. The most recent two (2) years shall be maintained on-site and shall be available for inspection by the DNR. The remaining three (3) years, the records may be maintained off site. Records shall be legible and maintained in an orderly manner. These records shall show the following:

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: Iowa 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

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity
EPF-199-10A	EUF-199-COKE-10A	Petroleum Coke Receiving	NA	Petroleum Coke	70,080 tons/yr
EPF-199-10B	EUF-199-COKE-10B	Petroleum Coke Pile	NA	Vehicle Traffic	0.0189 VMT/hr
EPF-199-10C	EUF-199-COKE-10C	Petroleum Coke Reclaim	NA	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

EU	EU Description	Control Equipment	Raw Material	Rated Capacity
EU-199-AST-11	Fuel Oil Storage Tank	NA	Fuel Oil	474776 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)

IV. General Conditions

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

G1. Duty to Comply

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

G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in *567 IAC 22.105(2)*. *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

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

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the

permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

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

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
 - a. Form 1.0 "Facility Identification";
 - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
 - c. Form 5.0 "Title V annual emissions summary/fee"; and
 - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
 - a. Form 1.0 "Facility Identification";
 - b. Form 5.0 "Title V annual emissions summary/fee";
 - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

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

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

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

G8. Duty to Provide Information

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

G9. General Maintenance and Repair Duties

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

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

G10. Recordkeeping Requirements for Compliance Monitoring

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

- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

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

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

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

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

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

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in *567 IAC 131.2(2)*. *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. 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. Oral 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 oral 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 visible emission standard by more than 10 percent opacity. The oral report may be made 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 oral 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 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 must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *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.
 - e. The changes comply with all applicable requirements.
 - f. For such a 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 is required to do 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 Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

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 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.

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 a 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, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant 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, and those requirements that apply to Title V issuance and renewal. 567 IAC 22.111-567 IAC 22.113 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 22.105(1)"a"(4)

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. 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 conducting any renovation or demolition activities at the facility. 567 IAC 23.1(3)"a", and 567 IAC 23.2

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. 567 IAC 23.2 *except 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

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

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

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

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

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

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

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

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in

which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

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

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 to determine transferability of the permit. *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. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. 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. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the

equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance. Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.
567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. *567 IAC 26.1(1)*

G32. Contacts List

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

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7020

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

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 242-5100

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

Field Office 1

909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2

P.O. Box 1443
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

Field Office 6

401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Polk County Planning & Development

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

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

Linn County Public Health Dept.

Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

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)
 Identification: EU-199-BLR-3
 Facility: University of Northern Iowa Power Plant

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

Regulation No.: Iowa DNR Construction Permit 07-A-301-P1
 Particulate emission limit: 58.33 lbs/hr (Federal), 0.2 lb/MMBtu (State)
 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

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	An excursion is defined as a differential pressure reading across	Fan amperage above 100 indicates the fan is operating and the control device

	the baghouse outside 2.5" – 10" W. C. Excursions trigger an inspection, corrective action and a recordkeeping requirement.	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 particulate 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 manufactures 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**

IV. 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.: Iowa DNR Construction Permit 07-A-301-P1
Particulate emission limit: 0.051 lb/MMBtu (Federal), 0.035 lb/MMBtu
(State) PM10 0.033 lb/MMBtu (State)
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)

V. 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 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 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	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.

VI. 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.