Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: MidAmerican Energy Company – Walter Scott Jr. Energy Center
Facility Location: 7215 Navajo Street, Council Bluffs, IA 51501
Air Quality Operating Permit Number: 97-TV-001R2-M001
Expiration Date: March 12, 2018

Permit Renewal Application Deadline: September 12, 2017

EIQ Number: 92-3600
Facility File Number: 78-01-026

<u>Responsible Official</u>
Name: Mr. Kollin M. Derynck
Title: General Manager
Mailing Address: 7215 Navajo Street, Council Bluffs, Iowa 51501
Phone #: (515) 366-5365

<u>Permit Contact Person for the Facility</u>
Name: Mr. Kollin M. Derynck
Title: General Manager
Mailing Address: 7215 Navajo Street, Council Bluffs, Iowa 51501
Phone #: (712) 366-5365

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

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Lori Hanson, Supervisor of Air Operating Permits Section Date

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Abbreviations

acfm.....actual cubic feet per minute
BACT.....Best Available Control Technology
CFR.....Code of Federal Regulation
CE .....control equipment
CEM.....continuous emission monitor
^{o}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
MACT.....Maximum Achievable Control Technology
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS.....new source performance standard
NESHAP.....National Emission Standards for Hazardous Air Pollutants
ppmv .....parts per million by volume
lb./hr.....pounds per hour
lb./MMBtu .....pounds per million British thermal units
SCC.....Source Classification Codes
scfm.....standard cubic feet per minute
SIC .....Standard Industrial Classification
TPY.....tons per year
USEPA.....United States Environmental Protection Agency

Pollutants
PM.....particulate matter
PM_{10}.....particulate matter ten microns or less in diameter
SO_2.....sulfur dioxide
NO_x .....nitrogen oxides
VOC.....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: MidAmerican Energy Company – Walter Scott Jr. Energy Center
Permit Number: 97-TV-001R2-M001

Facility Description: Electric Services (SIC 4911)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-001	EU-001	WSEC 1 Boiler - Natural Gas	72-A-162-S4
		WSEC 1 Boiler – Sub-bituminous Coal	72-A-162-S4
EP-002	EU-002	WSEC 2 Boiler - Natural Gas	72-A-173-P3
		WSEC 2 Boiler – Sub-bituminous Coal	72-A-173-P3
EP-003	EU-003	WSEC 3 Boiler - Coal	75-A-357-P6
		WESC 3 Boiler - #2 Fuel Oil	75-A-357-P6
EP-004	EU-004	Unit 3 AUX Boiler - #2 Fuel Oil	96-A-1277-S1
EP-005	EU-005A	Coal Pile Bulldozing	03-A-425-P4
	EU-005B	Inactive Coal Pile	03-A-425-P4
	EU-005C	Active Coal Pile	03-A-425-P4
EP-006	EU-006	Dumper Building	03-A-436-P2
EP-009	EU-009	Transfer House #1 - Coal Conveying	78-A-169-S5
EP-010	EU-010	Transfer House #2 - Coal Conveying	03-A-438-P2
	EU-117A	Emergency Reclaim Hopper to Belt 8	
EP-011	EU-011	Transfer House #3 - Coal Conveying	78-A-171-S2
EP-013	EU-013	Transfer House #4 - Coal Conveying	03-A-439-P2
EP-014	EU-014	East Coal Silo #3 - Coal Conveying	78-A-174-S4
EP-015	EU-015	West Coal Silo #3 - Coal Conveying	78-A-175-S3
EP-016	EU-016	1&2 Crusher - Coal Conveying	79-A-254-S2
EP-017	EU-017	1&2 Tripper - Coal Conveying	79-A-255-S2
EP-018	EU-018	Ash Haul Road	03-A-425-P4 75-A-357-P6
EP-019	EU-019A	CCR Monofill Disposal	None
	EU-019B	CCR Monofill Grading	None
	EU-019C	CCR Monofill Erosion	None
EP-020	EU-020	Flyash Truck Loading #3	None
EP-021	EU-021	Flyash Truck Loading #1&#2	None
EP-025	EU-025	Glycol System Expansion Tank	None
EP-027	EU-027	Unit 1, 2, &3 Diesel Engine for Fire Pump	None
EP-030	EU-030	Stockout Conveyor 7 Coal Conveying	03-A-425-P4 78-A-169-S5
EP-031	EU-031A	Stacker/Reclaimer	03-A-425-P4
	EU-031B	Stacker/Reclaimer	03-A-425-P4
	EU-031C	Stacker/Reclaimer	03-A-425-P4
	EU-031D	Stacker/Reclaimer	03-A-425-P4
EP-112	EU-112	Unit 1&2 Aux Boiler Natural Gas (6.0 MMBtu/hr)	None
EP-113	EU-113	Unit 1&2 Emergency Generator	None

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-114	EU-114	Unit 3 Emergency Generator	11-A-610
EP-117B	EU-117B	Emergency Reclaim Hopper - Coal Dumping	78-A-172-S1
EP-119A	EU-119A	1&2 Flyash Storage Silo	96-A-1279-S1
EP-119B	EU-119B	1&2 Flyash Silo Bin	96-A-1280-S1
EP-141	EU-141	Unit #4 Boiler - #2 Fuel Oil	03-A-425-P4
	EU-141	Unit #4 Boiler – Sub-bituminous Coal	03-A-425-P4
EP-142	EU-142	Unit #4 AUX Boiler - Natural Gas	03-A-426-P2
EP-143	EU-143	Unit #4 Emergency Generator #2 Fuel Oil	03-A-428-P1
EP-144	EU-144	Unit #4 Diesel Fire Pump	03-A-429-P1
EP-145	EU-145	Unit #4 Cooling Tower	03-A-427-P1
EP-151	EU-151	Rail Unloading Stockout	03-A-425-P4
EP-160	EU-160	Unit #4 Coal Silos	03-A-440-P2
EP-161	EU-161	Unit #4 Lime Storage Day Bin	07-A-385-P
EP-162A	EU-162A	Unit #4 Lime Exhauster #1	03-A-435-P1
EP-162B	EU-162B	Unit #4 Lime Exhauster #2	07-A-386-P
EP-163	EU-163	Unit #4 Lime Silo	03-A-434-P2
EP-164	EU-164	Unit #4 Urea Dissolver Tank	03-A-442-P2
EP-165A	EU-165A	Unit #4 Activated Carbon Silo	07-A-387-P
EP-165B	EU-165B	Unit #4 Activated Carbon Silo	07-A-388-P
EP-167	EU-167	Unit #4 Flyash/FGD Waste Silo	03-A-433-P3
EP-168	EU-168	Unit #4 Flyash/FGD Waste Exhauster#1	03-A-430-P2
EP-169	EU-169	Unit #4 Flyash/FGD Waste Exhauster#2	03-A-431-P2
EP-170	EU-170	Unit #4 Flyash/FGD Waste Exhauster#3	03-A-432-P2
EP-171	EU-171	Unit #4 Flyash/FGD Recycle Exhauster#1	07-A-389-P
EP-172	EU-172	Unit #4 Flyash/FGD Recycle Exhauster#2	07-A-390-P
EP-173	EU-173	Unit #4 Flyash/FGD Recycle Exhauster#3	07-A-391-P
EP-174	EU-174	Unit #4 Flyash/FGD Recycle Silo	07-A-392-P2
EP-180	EU-180	Unit #4 Water Treatment Area Lime Storage Silo A	07-A-393-P
EP-181	EU-181	Unit #4 Water Treatment Area Lime Storage Silo B	07-A-394-P
EP-182	EU-182	Unit #4 Water Treatment - Soda Ash Silo	07-A-395-P
EP-200	EU-200	Unit #3 Flyash/FGD Waste Silo	06-A-766-P1
EP-201	EU-201	Unit #3 Flyash/FGD Waste Exhauster#1	06-A-767-P1
EP-202	EU-202	Unit #3 Flyash/FGD Waste Exhauster#2	06-A-768-P1
EP-203	EU-203	Unit #3 Flyash/FGD Waste Exhauster#3	08-A-636-P
EP-204	EU-204	Unit #3 Lime Unloading Exhauster#1	06-A-769-P1
EP-205	EU-205	Unit #3 Lime Unloading Exhauster#2	06-A-770-P1
EP-207	EU-207	Unit #3 Lime Silo	06-A-772-P1
EP-208	EU-208	Unit #3 Recycle Ash Silo	06-A-773-P1
EP-209	EU-209	Unit #3 Flyash/FGD Recycle Exhauster#1	06-A-774-P1
EP-210	EU-210	Unit #3 Flyash/FGD Recycle Exhauster#2	06-A-775-P1
EP-211	EU-211	Unit #3 Flyash/FGD Recycle Exhauster#3	06-A-776-P1

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-122	Welding Operations
EU-123	Transfer House #3 Reject
EU-124	1&2 Crusher House Reject
EU-125	Bead Blaster Unit 3
EU-126	Bead Blaster Tech. Shop
EU-127	Bead Blaster Unit 1&2
EU-128	Unit 4 Oil/Water Separator
EU-129	Unit 3 Oil/Water Separator
EU-130	Unit 1&2 Lube Oil Emergency
EU-131	Unit 3 Emergency Generator Day Tank (175 gallon)
EU-132	Diesel Fuel AST
EU-133	Unleaded Gasoline AST
EU-146	Unit 4 Turbine Lube Oil System
EU-147	Unit 4 Emergency Generator Diesel Tank
EU-148	Unit 4 Fire Pump Diesel Tank
EU-149	Unit 4 Waste Ash Silo Loadout
EU-212	Unit 3 Waste Ash Silo Loadout
EU-213	Unit 3 SDA Hopper Dump
EU-214	Unit 3 Lime Slurry Grit Screen Dump
EU-215	Unit 3 Recycle Ash Grit Screen Dump
EU-NR022	Fuel Oil Tank 301 (1MM Gallons)
EU-NR023	Fuel Oil Tank 302 (1MM Gallons)
EU-NR101	Fuel Oil UST (10,000 Gallons)
EU-NR104	Unit 1&2 Emergency Generator Fuel Oil Tank (270 Gallons)
EU-NR106	Used Lube Oil Vault (2,000 Gallons)
EU-NR107	Fire Pump Oil Tank (350 Gallons)
EU-NR109	Unit 3 Turbine Lube Oil Tank (15,800 Gallons)
EU-NR110	Unit 2 Turbine Lube Oil Tank (5,300 Gallons)
EU-NR111	Unit 1 Turbine Lube Oil Tank (3,700 Gallons)
EU-150	Unit 4 Bead Blaster

II. Plant-Wide Conditions

Facility Name: MidAmerican Energy Company – Walter Scott Jr. Energy Center
Permit Number: 97-TV-001R2-M001

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 date
Commencing on: March 13, 2013
Ending on: March 12, 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 (SO_2): 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"

Compliance Plan

The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Unless otherwise noted in Section III of this permit, MidAmerican Energy Company – Walter Scott Jr. Energy Center is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, MidAmerican Energy Company – Walter Scott Jr. Energy Center shall comply with such requirements in a timely manner.
Authority for Requirement: 567 IAC 22.108(15)

40 CFR 60 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are EP-003, EP-006, EP-009, EP-010, EP-011, EP-013, EP-014, EP-015, EP-016, EP-017, EP-117B, EP-114, EP-141 and EP-160.

See Appendix B for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

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

40 CFR 60 Subpart D Requirements

This facility is subject to Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971. The affected unit is EP-003.

See Appendix B for the link of the Standard.

Authority for Requirements:	40 CFR 60 Subpart D
	567 IAC 23.1(2) "a"

40 CFR 60 Subpart Da Requirements

This facility is subject to Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978. The affected unit is EP-141.

See Appendix B for the link of the Standard.

Authority for Requirements:	40 CFR 60 Subpart Da
	567 IAC 23.1(2) "z"

40 CFR 60 Subpart Y Requirements

This facility is subject to Standards of Performance for Coal Preparation Plants and Processing Plants. The affected units are EP-006, EP-009, EP-010, EP-011, EP-013, EP-014, EP-015, EP-016, EP-017, EP-117B and EP-160.

See Appendix B for the link of the Standard.

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

40 CFR 60 Subpart IIII Requirements

This facility is subject to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The affected unit is EP-114.

See Appendix B for the link of the Standard.

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

40 CFR 63 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are EP-001, EP-002, EP-003, EP-004, EP-027, EP-112, EP-113, EP-114, EP-141, EP-142, EP-143 and EP-144.

See Appendix B for the link of the Standard.

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

40 CFR 63 Subpart B Requirements

This facility is subject to Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j). The affected unit is EP-141.

See Appendix B for the link of the Standard.

Authority for Requirements:	40 CFR 63 Subpart B
	567 IAC 23.1(4) "b"

40 CFR 63 Subpart ZZZZ Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ]. The affected units are EP-027, EP-113, EP-114, EP-143 and EP-144.

See Appendix B for the link of the Standard.

Authority for Requirements:	40 CFR 63 Subpart ZZZZ

40 CFR 63 Subpart DDDDD Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT) [40 CFR Part 63 Subpart DDDDD]. The affect units are EP-004, EP-112 and EP-142.

See Appendix B for the link of the Standard.

Authority for Requirements:	40 CFR 63 Subpart DDDDD

40 CFR 63 Subpart UUUUU Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units [40 CFR 63 Subpart UUUUU]. The affected units are EP-001, EP-002, EP-003 and EP-141.

See Appendix B for the link of the Standard.

Authority for Requirements:	40 CFR 63 Subpart UUUUU

III. Emission Point-Specific Conditions

Facility Name: MidAmerican Energy Company – Walter Scott Jr. Energy Center
Permit Number: 97-TV-001R2-M001

Emission Point ID Number: EP-001

Associated Equipment

Associated Emission Unit ID Numbers: EU-001
Emissions Control Equipment ID Number: CE-001; CE-001A
Emissions Control Equipment Description: Electrostatic Precipitator (CE-001)
Low NO_x Burners (CE-001A)
Continuous Emissions Monitors ID Numbers: ME-001A (SO_2); ME-001B (NO_x); ME-001C (CO_2); ME-001D (Flow); ME-001E (Opacity); ME-001F (CO)

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-001	EU-001	WSEC 1 Boiler	Natural Gas	656 MMBtu/hr
		WSEC 1 Boiler	Sub-bituminous Coal	

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4
567 IAC 23.3(2) "d"

[1] 6-Minute Average.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 229.6 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4

[1] 3-Test Run Average.

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.49 lb/MMBtu[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4
567 IAC 23.3(2) "b"

[1] 3-Test Run Average.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 787.2 lb/hr[1]; 5.0 lb/MMBtu
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4
567 IAC 23.3(3) "a"

[1] 3-Hour Rolling Average.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): Sulfur Dioxide Allowance
Authority for Requirement: 567 IAC 22.108 (7)
Attached Phase II Acid Rain Permit

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 1149.3 ton/yr[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4

[1] 12-Month Rolling Total.

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): See Attached Phase II Acid Rain Permit
Authority for Requirement: 567 IAC 22.125 (4) (Attached Phase II Permit)
40 CFR 76.5(a)(2)

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 1206.8 ton/yr[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4

[1] 12-Month Rolling Total.

Operational Limits & Requirements

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

Operating Limits

A. The owner or operator shall inspect and maintain the control equipment according to manufacturer's recommendations.

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.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4

NSPS and NESHAP Applicability
This facility is subject to National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units [40 CFR 63 Subpart UUUUU].

Authority for Requirement: 40 CFR 63 Subpart UUUUU

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 250
Stack Opening, (inches, dia.): 144
Exhaust Flow Rate (scfm): 186,366
Exhaust Temperature (°F): 320
Discharge Style: Unobstructed Vertical
Authority for Requirement: Iowa DNR Construction Permit 72-A-162-S4

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.

Stack Testing:

Pollutant – Particulate Matter (PM and PM10)
1st Stack Test to be Completed by March 12, 2014
2nd Stack Test to be Completed between September 12, 2015 and September 12, 2016
Test Method - Iowa Compliance Sampling Manual Method 5 for PM
40 CFR 51, Appendix M, 201A with 202 or approved alternative test method for PM10
Authority for Requirement – 567 IAC 22.108(3)

Mercury Emissions Testing and Monitoring (State Only)
EP-001 is subject to the mercury emissions testing and monitoring requirements in 567 IAC 25.3. The facility shall conduct stack testing, request for a Low Mass Emitter (LME) classification, or install and operate a continuous emissions monitoring system. Refer to 567 IAC 25.3 for complete and detailed requirements.

Authority for Requirement: 567 IAC 25.3

Continuous Emissions Monitoring:

Pollutant – Opacity
Operational Specifications – 40 CFR Part 60 & 40 CFR Part 75
Date of System Calibration and Quality Assurance – 07/29/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60 & 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 60 & 40 CFR Part 75
Authority for Requirement – 567 IAC 25.1 (1) and 567 IAC 25.2

Pollutant – Sulfur Dioxide (SO_2)

Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 05/13/2008
Ongoing System Calibration/Quality Assurance - 40 CFR Part 75
Reporting & Record keeping - 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

Pollutant – Nitrogen Oxides (NO_x)
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 05/13/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

Pollutant – Carbon Monoxide (CO)
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 12/20/2005
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – Iowa DNR Construction Permit 72-A-162-S4

Compliance with the opacity, SO_2, and NO_x emission standards of this permit shall be demonstrated through the use of the monitors required by 567 IAC 25.2. The following conditions shall apply to all CEMS for the opacity, SO_2, NO_x, and CO emission standards of this permit:

A. The CEMS required by this permit shall be operated and data recorded during all periods of operation of WSEC Boiler 1 except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
B. The 1-hour average SO_2, 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.
C. For each hour of missing emission data (NO_x, SO_2, 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.

Other Parameters

Pollutant – Carbon Dioxide (CO_2)
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 12/20/1994
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

Pollutant – Flow
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 08/20/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

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)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan for EP-001

I. Background

A. Emissions Unit:

Description: WSEC Boiler 1, Wall-fired, Dry-Bottom Pulverized Coal Unit
Identification: EU-001
Facility: MidAmerican Energy Co. – Walter Scott, Jr. Energy Center

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

Regulation No.: Construction Permit 72-A-162-S4
Particulate Emission Limit: 0.49 lb/MMBtu for PM; 229.6 lb/hr for PM10
Opacity Emission Limit: 40%
Current Monitoring Requirements: Continuous Opacity Monitoring (COMS)
Audible Precipitator Malfunction Alarm
Recordkeeping

C. Control Technology: Electrostatic Precipitator

II. Monitoring Approach

	Indicator #1	**Indicator #2**
I. Indicator Measurement Approach	Opacity of ESP exhaust	Audible Precipitator Malfunction Alarm
	COMS in ESP exhaust	The audible alarm will continuously monitor T-R set failure and rapper control malfunction, combined with daily inspections of the ESP electromechanical operation as the monitoring method.
II. Indicator Range	When the opacity exceeds 40% over any 6-minute average, corrective action will be implemented within 8 hours plus the period of time until generating capacity is available to meet consumer demand. An exceedance of the 40% opacity limit is considered a violation, and shall be reported as required in General Condition G14.	The precipitator malfunction alarm will continuously monitor T-R set failure and rapper control malfunction. Corrective action measures will be implemented on the occurrence of a precipitator malfunction alarm. The appropriate measures for remediation will be implemented within 8 hours plus the period of time until generating capacity is available to meet consumer demand.
III. Performance Criteria		
A. Data Representativeness	Install the COMS at a representative location in the ESP exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1).	Rapper system operation, T-R set operation and ash removal system operation are indicators of the proper electro-mechanical operation of the electrostatic precipitator. An audible alarm will continuously monitor T-R set

	Indicator #1	Indicator #2
		failure and rapper control health. Daily inspection of the rapper system operation, T-R set and ash removal system provides additional assurance of proper electro-mechanical operation of the electrostatic precipitator.
B. Verification of Operational Status	Results of initial COMS performance evaluation conducted per PS-1 (July,1994)	Results of equipment verification tests conducted to calibrate the audible alarm.
C. QA/QC Practices and Criteria	Install and evaluate the COMS per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily	All instruments and control equipment will be calibrated, maintained, and operated according to the manufactures specifications.
D. Monitoring Frequency	Monitor the opacity of the ESP exhaust continuously (every 10 seconds).	An audible alarm will continuously monitor T-R set failure and rapper control malfunction. Daily: · Inspection of rapper operation. · Inspection of T-R set operation including power usage level. · Inspection of ash removal system operation. Each Major Scheduled Unit Outage Lasting Four or More Weeks: · Check and correct plate electrode alignment. · Inspect for collection surface fouling. · Inspect T-R set mechanical condition. · Inspect internal structural components.
E. Data Collection Procedures	Set up the data acquisition system (DAS) to retain all 6-minute and hourly average opacity data.	Maintain opacity reports, supporting data, all inspection records, and any action resulting from the inspection for 5 years and available upon request.
Averaging Period	Use the 10-second opacity data to calculate 6-minute averages. Use the 6-minute averages to calculate the hourly block average opacity.	None.

Emission Point ID Number: EP-002

Associated Equipment

Associated Emission Unit ID Numbers: EU-002
Emissions Control Equipment ID Number: CE-002; CE-002A
Emissions Control Equipment Description: Electrostatic Precipitator (CE-002)
Low NO_x Burners/Overfire Air (CE-002A)
Continuous Emissions Monitors ID Numbers: ME-002A (SO_2); ME-002B (NO_x); ME-002C (CO_2); ME-002D (Flow); ME-002E (Opacity); ME-002F (CO)

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-002	EU-002	WSEC 2 Boiler	Natural Gas	935 MMBtu/hr
		WSEC 2 Boiler	Sub-bituminous Coal	

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3
567 IAC 23.3(2) "d"

[1] 6-Minute Average.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 327.25 lb/hr[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3

[1] 3-Test Run Average.

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.49 lb/MMBtu[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3
567 IAC 23.3(2) "a"

[1] 3-Test Run Average.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 1122.0 lb/hr[1]; 1.2 lb/MMBtu[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3

[1] 3-Hour Rolling Average.

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 1228.59 ton/yr[1]
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3

[1] 12-Month Rolling Total.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): Sulfur Dioxide Allowance
Authority for Requirement: 567 IAC 22.108 (7)
Attached Phase II Acid Rain Permit

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): See Attached Phase II Acid Rain Permit
Authority for Requirement: 567 IAC 22.125 (4) (Attached Phase II Permit)
40 CFR 76.5(a)(2)

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 1524.0 lb/hr[1]; 0.54 lb/MMBtu[2]
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3

[1] 1-Hour Standard.
[2] 30-Day Rolling Average, including periods of startup, shutdown, and malfunction.

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

Operating Limits

A. The owner or operator shall inspect and maintain the control equipment according to manufacturer's recommendations.

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.

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3

NSPS and NESHAP Applicability
This facility is subject to National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units [40 CFR 63 Subpart UUUUU].

Authority for Requirement: 40 CFR 63 Subpart UUUUU

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 250
Stack Opening, (inches, dia.): 144
Exhaust Flow Rate (scfm): 199,200
Exhaust Temperature (°F): 290
Discharge Style: Unobstructed Vertical
Authority for Requirement: Iowa DNR Construction Permit 72-A-173-P3

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.

Stack Testing:

Pollutant – Particulate Matter (PM and PM10)
1st Stack Test to be Completed by March 12, 2014
2nd Stack Test to be Completed between September 12, 2015 and September 12, 2016
Test Method - Iowa Compliance Sampling Manual Method 5 for PM
40 CFR 51, Appendix M, 201A with 202 or approved alternative test method for PM10
Authority for Requirement – 567 IAC 22.108(3)

Mercury Emissions Testing and Monitoring (State Only)

EP-002 is subject to the mercury emissions testing and monitoring requirements in 567 IAC 25.3. The facility shall conduct stack testing, request for a Low Mass Emitter (LME) classification, or install and operate a continuous emissions monitoring system. Refer to 567 IAC 25.3 for complete and detailed requirements.

Authority for Requirement: 567 IAC 25.3

Continuous Emissions Monitoring:

Pollutant – Opacity
Operational Specifications – 40 CFR Part 60 & 40 CFR Part 75
Date of System Calibration and Quality Assurance – 07/25/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60 & 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 60 & 40 CFR Part 75
Authority for Requirement – 567 IAC 25.1(1) and 567 IAC 25.2

Pollutant – Sulfur Dioxide (SO_2)
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 06/10/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

Pollutant – Nitrogen Oxides (NO_x)
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 06/10/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

Pollutant – Carbon Monoxide (CO)
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 06/10/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – Iowa DNR Construction Permit 72-A-173-P3

Other Parameters

Pollutant – Carbon Dioxide (CO_2)
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 12/20/1994
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

Pollutant – Flow
Operational Specifications – 40 CFR Part 75
Date of System Calibration and Quality Assurance – 08/20/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
Reporting & Record keeping – 40 CFR Part 75
Authority for Requirement – 567 IAC 25.2

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)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan for EP-002

I. Background

A. Emissions Unit:

Description: WSEC Boiler 2, Tangentially-fired, Dry-Bottom Pulverized Coal Unit
Identification: EU-002
Facility: MidAmerican Energy Co. – Walter Scott, Jr. Energy Center

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

Regulation No.: Construction Permit 72-A-173-P3
Particulate Emission Limit: 0.49 lb/MMBtu PM; 327.25 lb/hr PM10
Opacity Emission Limit: 40%
Current Monitoring Requirements: Continuous Opacity Monitoring (COMS)
Audible Precipitator Malfunction Alarm
Recordkeeping

C. Control Technology: Electrostatic Precipitator

II. Monitoring Approach

	Indicator #1	**Indicator #2**
I. Indicator Measurement Approach	Opacity of ESP exhaust	Audible Precipitator Malfunction Alarm
	COMS in ESP exhaust	The audible alarm will continuously monitor T-R set failure and rapper control malfunction, combined with daily inspections of the ESP electromechanical operation as the monitoring method.
II. Indicator Range	When the opacity exceeds 40% over any 6-minute average, corrective action will be implemented within 8 hours plus the period of time until generating capacity is available to meet consumer demand. An exceedance of the 40% opacity limit is considered a violation, and shall be reported as required in General Condition G14.	The precipitator malfunction alarm will continuously monitor T-R set failure and rapper control malfunction. Corrective action measures will be implemented on the occurrence of a precipitator malfunction alarm. The appropriate measures for remediation will be implemented within 8 hours plus the period of time until generating capacity is available to meet consumer demand.
III. Performance Criteria		
A. Data Representativeness	Install the COMS at a representative location in the ESP exhaust per 40 CFR 60, Appendix B, Performance Specification 1 (PS-1).	Rapper system operation, T-R set operation and ash removal system operation are indicators of the proper electro-mechanical operation of the electrostatic precipitator. An audible alarm will continuously monitor T-R set failure and rapper control health. Daily inspection of the rapper system operation, T-R set and ash removal

	Indicator #1	Indicator #2
		system provides additional assurance of proper electro-mechanical operation of the electrostatic precipitator.
B. Verification of Operational Status	Results of initial COMS performance evaluation conducted per PS-1 (July, 1994).	Results of equipment verification tests conducted to calibrate the audible alarm.
C. QA/QC Practices and Criteria	Install and evaluate the COMS per PS-1. The continuous opacity monitor will be automatically calibrated for zero and span adjustments daily.	All instruments and control equipment will be calibrated, maintained, and operated according to the manufactures specifications.
D. Monitoring Frequency	Monitor the opacity of the ESP exhaust continuously (every 10 seconds).	An audible alarm will continuously monitor T-R set failure and rapper control malfunction. Daily: · Inspection of rapper operation. · Inspection of T-R set operation including power usage level. · Inspection of ash removal system Operation Each Major Scheduled Unit Outage Lasting Four or More Weeks: · Check and correct plate electrode alignment. · Inspect for collection surface fouling. · Inspect T-R set mechanical condition. · Inspect internal structural components.
E. Data Collection Procedures	Set up the data acquisition system (DAS) to retain all 6-minute and hourly average opacity data.	Maintain opacity reports, supporting data, all inspection records, and any action resulting from the inspection for 5 years and available upon request.
Averaging Period	Use the 10-second opacity data to calculate 6-minute averages. Use the 6-minute averages to calculate the hourly block average opacity.	None.

Emission Point ID Number: EP-003

Associated Equipment

Associated Emission Unit ID Numbers: EU-003
Emissions Control Equipment ID Number: CE-003A; CE-003B; CE-003C
Emissions Control Equipment Description: CE-003A: Overfire Air-Low NO_x Burners
CE-003B: Desulfurization (FGD)
CE-003C: Fabric Filter
Continuous Emissions Monitors ID Numbers: ME-003A (SO_2); ME-003AL (SO_2); ME-003B (NO_x); ME-003C (CO_2); ME-003D (Flow); ME-003E (Opacity); ME-003F (CO)

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-003	EU-003	WSEC 3 Boiler	Coal	7,700 MMBtu/hr
		WESC 3 Boiler	#2 Fuel Oil	

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.

Opacity:

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
10%	1-hr average	COMS	Iowa DNR Construction Permit 75-A-357-P6	BACT
20% [1]	6-minutes average	COMS	Iowa DNR Construction Permit 75-A-357-P6 40 CFR 60 Subpart D 567 IAC 23.1(2) "a"	None

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

Particulate Matter (PM_{10}):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
0.027 lb/MMBtu	3-test run average	Stack testing	Iowa DNR Construction Permit 75-A-357-P6	BACT
911 ton/yr	12-month rolling total[1]	Recordkeeping	Iowa DNR Construction Permit 75-A-357-P6	BACT
207.9 lb/hr	3-test run average	Stack testing	Iowa DNR Construction Permit 75-A-357-P6	NAAQS

[1] Includes periods of startup, shutdown and malfunction emissions.

Particulate Matter (PM):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
0.027 lb/MMBtu	3-test run average	Stack testing	Iowa DNR Construction Permit 75-A-357-P6	BACT
911 ton/yr	12-month rolling total[1]	Recordkeeping	Iowa DNR Construction Permit 75-A-357-P6	BACT
43 ng/J heat input (0.10 lb/MMBtu)	3-test run average	Stack Testing	Iowa DNR Construction Permit 75-A-357-P6 40 CFR 60 Subpart D 567 IAC 23.1(2) "a"	Federal PM

[1] Includes periods of startup, shutdown and malfunction emissions.

Sulfur Dioxide (SO_2):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
3,080 lb/hr	30-day rolling average	CEMS	Iowa DNR Construction Permit 75-A-357-P6	NAAQS
0.4 lb/MMBtu	30-day rolling average	CEMS	Iowa DNR Construction Permit 75-A-357-P6	None
13,490 ton/yr	12-month rolling average[2]	CEMS	Iowa DNR Construction Permit 75-A-357-P6	None
520 ng/J heat input[1] (1.2 lb/MMBtu)	3-hr rolling average	CEMS	Iowa DNR Construction Permit 75-A-357-P6 40 CFR 60 Subpart D 567 IAC 23.1(2) "a"	None

[1] 520 ng/J = 1.20 lb/MMBtu. This was derived from solid fossil fuel. See Construction Permit 75-A-357-P6 Section 10b (page 6) or 40 CFR §60.43Da(a) for sulfur dioxide (SO_2) for detailed calculations.

[2] Includes periods of startup, shutdown and malfunction emissions.

Nitrogen Oxides (NO_x):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
1,925 lb/hr	30-day rolling average	CEMS	Iowa DNR Construction Permit 75-A-357-P6	None
8,431 ton/yr	12-month rolling total [2]	CEMS	Iowa DNR Construction Permit 75-A-357-P6	None
300 ng/J heat input[1] (0.70 lb/MMBtu)	3-hour rolling average [2]	CEMS	Iowa DNR Construction Permit 75-A-357-P6 40 CFR 60 Subpart D 567 IAC 23.1(2) "a"	None

[1] 300 ng/J = 0.70 lb/MMBtu. This was derived from solid fossil fuel. See Construction Permit 75-A-357-P6 Section 10b (page 6) or §60.44 Standard for nitrogen oxides (NO_x) for details.

[2] Includes periods of startup, shutdown and malfunction emissions.

Carbon Monoxide (CO):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
0.42 lb/MMBtu	Calendar-day average	CEMS	Iowa DNR Construction Permit 75-A-357-P6	BACT
14,165 ton/yr	12-Month Rolling Total [1]	CEMS	Iowa DNR Construction Permit 75-A-357-P6	BACT
3,234 lb/hr	Calendar-day average	CEMS	Iowa DNR Construction Permit 75-A-357-P6	None

[1] Includes periods of startup, shutdown and malfunction emissions.

Operational Limits & Requirements

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

Operating Limits

A. This unit shall be limited to firing coal, with oil for startup

B. A bag leak detection system must be installed to meet the following criteria:

B1. At least one detector must be located in each compartment of the baghouse.

B2. The bag leak detection system must be installed, operated, calibrated and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in "Fabric Filter Bag Leak Detection Guidance", EPA-454/R-98-015, September 1997.

B3. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

B4. The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

B5. The bag leak detection system must be equipped with a device to continuously record the output signal from the sensors.

B6. The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

B7. The system's instrumentation and alarm may be shared among detectors.

B8. The system's alarm shall sound no more than 5% of the operating time during a 6-month period.

C. Trucks which haul either ash or sludge shall either be covered with a tarp or enclosed.

D. The waste material collected by the fabric filter and stored in the FGD waste silo system shall be processed through a pug-mill during loadout to increase the material moisture content to a minimum of 20%. Water wagons shall be used to wet the waste material during disposal site grading activities. This requirement does not apply to waste material being sold for beneficial use.

E. The owner or operator may, but is not required to, treat the coal burned in this unit with chemicals containing additives including a mineral composite of calcium silicate components and other calcium compounds containing iron and aluminum and/or calcium bromide or calcium chloride.

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.

A. MidAmerican shall submit excess emission and monitoring system performance reports to the Administrator semiannually for each six-month period in the calendar year, as required in 40 CFR §60.45(g). All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSDP report shall include the information required in 40 CFR §60.7(c).
B. MidAmerican is required to meet all applicable recordkeeping and reporting requirements under NSPS Subparts A and D.
C. The following records must be maintained from the bag leak detection system:
   C1. The date, time and duration of each system alarm.
   C2. The time corrective action was initiated and completed
   C3. A brief description of the cause of the alarm and the corrective action
   C4. A record of the percent of operating time during each 6-month period that the alarm sounds. In calculating the operating time percentage,
      1. If an inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.
      2. If corrective action is required, each alarm shall be counted as a minimum of 1 hour.
      3. If it takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.
D. A copy of the results of the required mercury tests (pre- and post-FGD system) shall be maintained.

Authority for Requirement: Iowa DNR Construction Permit 75-A-357-P6

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971.

Authority for Requirement: 40 CFR 60 Subpart D

This facility is subject to National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units [40 CFR 63 Subpart UUUUU].

Authority for Requirement: 40 CFR 63 Subpart UUUUU

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 550
Stack Opening, (inches, dia.): 300
Exhaust Flow Rate (scfm): 2,318,750
Exhaust Temperature (°F): 180
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 75-A-357-P6

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.

Stack Testing:

Pollutant – Particulate Matter (PM and PM10)
1st Stack Test to be Completed by March 12, 2014
2nd Stack Test to be Completed between September 12, 2015 and September 12, 2016
Test Method - Iowa Compliance Sampling Manual Method 5 for PM
40 CFR 51, Appendix M, 201A with 202 or approved alternative test method for PM10
Authority for Requirement – 567 IAC 22.108(3)

Mercury Emissions Testing and Monitoring (State Only)

EP-003 is subject to the mercury emissions testing and monitoring requirements in 567 IAC 25.3. The facility shall conduct stack testing, request for a Low Mass Emitter (LME) classification, or install and operate a continuous emissions monitoring system. Refer to 567 IAC 25.3 for complete and detailed requirements.

Authority for Requirement: 567 IAC 25.3

Continuous Emissions Monitoring:

Pollutant – Opacity
Operational Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Date of System Calibration and Quality Assurance – 07/23/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Reporting & Record keeping – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Authority for Requirement – 567 IAC 25.1(1), 567 IAC 25.2, 567 IAC 23.1(2)

Pollutant – Sulfur Dioxide (SO_2)
Operational Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Date of System Calibration and Quality Assurance – 10/29/2008; 06/01/2009
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Reporting & Record keeping - – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Authority for Requirement – 567 IAC 25.2, 567 IAC 23.1(2)

Pollutant – Nitrogen Oxides (NO_x)
Operational Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Date of System Calibration and Quality Assurance – 10/29/2008
Ongoing System Calibration/Quality Assurance Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Reporting & Record keeping Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Authority for Requirement – 567 IAC 25.2 and 567 IAC 23.1(2)

Pollutant – Carbon Monoxide (CO)
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 01/09/2007
Ongoing System Calibration/Quality Assurance Specifications – 40 CFR Part 60
Reporting & Record keeping Specifications –40 CFR Part 60
Authority for Requirement – Iowa DNR Construction Permit 75-A-357-P6

<u>Other Parameters:</u>

Pollutant – Carbon Dioxide (CO_2)
Operational Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Date of System Calibration and Quality Assurance – 10/29/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Reporting & Record keeping – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Authority for Requirement – 567 IAC 25.2 and 567 IAC 23.1(2)

Pollutant – Flow
Operational Specifications – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Date of System Calibration and Quality Assurance – 08/26/2004
Ongoing System Calibration/Quality Assurance – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Reporting & Record keeping – 40 CFR Part 75, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart D
Authority for Requirement – 567 IAC 25.2 and 567 IAC 23.1(2)

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)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan for EP-003

I. Background

A. Emissions Unit:

Description:	WSEC Boiler 3, Wall-fired, Dry-Bottom Pulverized Coal Unit
Identification:	EU-003
Facility:	MidAmerican Energy Co. – Walter Scott, Jr. Energy Center

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

Regulation No.:	Construction Permit 75-A-357-P6
Particulate Emission Limit:	0.027 lb/MMBtu; 43 ng/J Heat Input; 911 ton/yr
Opacity Emission Limit:	10%, 20%
Current Monitoring Requirements:	Alarm of the Bag Leak Detection System

C. Control Technology: Fabric Filter

II. Monitoring Approach

A. Indicator
An alarm system will be used as an indicator.

B. Measurement Approach
The alarm system will sound automatically when an increase in related particulate matter emissions over a preset level is detected

C. Indicator Range
The alarm system shall sound no more than 5% of the operating time during a 6-month period.

D. Performance Criteria

Data representativeness:	The alarm system will sound when the particulate matter emissions increase over the predetermined parameter.
Verification of operational status:	The bag leak record will be kept for five years.
QA/QC practices and criteria:	At least one detector must be located in compartment of the baghouse; The bag leak detection system must be installed, operated, calibrated and maintained in a manner consistent with the guidance provided in "Fabric Filter Bag Leak Detection Guidance", EPA-454/R-98-015, September 1997; The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less;

	The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings; The bag leak detection system must be equipped with a device to continuously record the output signal from the sensors; The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel. The system's instrumentation and alarm may be share among detectors; The system's alarm shall sound no more than 5% of the operating time during a 6-month period.
Monitoring frequency and data Collection procedure:	The bag leak detection system shall operate continuously. Records of the readings shall be maintained for five years.

Emission Point ID Number: EP-004

Associated Equipment

Associated Emission Unit ID Numbers: EU-004
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-004
Emission Unit Description: Unit 3 Auxiliary Boiler
Raw Material/Fuel: #2 Fuel Oil
Rated Capacity: 0.49 1000 gal/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20%
Authority for Requirement: Iowa DNR Construction Permit 96-A-1277-S1
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2) "b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: Iowa DNR Construction Permit 96-A-1277-S1
567 IAC 23.3(3) "b"

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

Operating Limits

Hours of operation:

The Unit 3 auxiliary boiler shall not be operated while the Unit 3 main boiler is operating, except for periods of testing, not to exceed ten (10) hours per month, and for periods of operation required for start-up of the Unit 3 main boiler.

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 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.

The permit holder shall maintain records on the premises to show the monthly hours of the testing periods of the Unit 3 auxiliary boiler administered under DNR permit 96-A-1277-S1.

Authority for Requirement: Iowa DNR Construction Permit 96-A-1277-S1

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

Authority for Requirement: 567 IAC 22.108(3)

NSPS and NESHAP Applicability
This equipment is subject to National Emission Standards for Hazardous Air Pollutant for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT) [40 CFR Part 63, Subpart DDDDD].

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 45.5
Stack Opening, (inches, dia.): 48
Exhaust Flow Rate (scfm): 15,449
Exhaust Temperature (°F): 450
Discharge Style: Vertical
Authority for Requirement: Iowa DNR Construction Permit 96-A-1277-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)

Emission Point ID Number: EP-005 and EP151 (Coal Storage)

Table -1

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-005	EU-005A	Coal Pile Bulldozing	Coal	3.0 dozer/hr
	EU-005B	Inactive Coal Pile	Coal	1,196,459 ft^2
	EU-005C	Active Coal Pile	Coal	311,155 ft^2
EP-151	EU-151	Rail Unloading Stockout	Coal	28,224 ft^2

Table -2

EP	EU	CE& Description	CEM	IDNR Construction Permit
EP-005	EU-005A	CE-005 Dust Suppressant	NO	03-A-425-P4
	EU-005B	CE-005A Encapsulating Chemical	NO	03-A-425-P4
	EU-005C	CE-005 Dust Suppressant	NO	03-A-425-P4
EP-151	EU-151	CE-005 Dust Suppressant	NO	03-A-425-P4

Applicable Requirements

Operational Limits & Requirements

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

A. Active coal pile:
   (i) The size of the active coal pile shall not exceed 311,155 square feet.
   (ii) Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition A in the section of *Reporting and Recordkeeping* shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall be maintained. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the required control efficiencies. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.
   (iii) 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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.

B. Inactive coal storage pile:
   (i) The size of the inactive coal storage pile shall not exceed 1,196,459 square feet.
   (ii) Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition A in the section of *Reporting and Recordkeeping* shall begin at the same time as the startup of Boiler 4. A control efficiency of 99% shall be maintained when the pile is inactive. A chemical dust suppressant shall be used to meet a control efficiency of 95% for maintenance of the inactive pile.

MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the required control efficiencies. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.

(iii) 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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.

C. Rail unloading coal stockout pile:

(i) The size of the active coal storage pile shall not exceed 28,224 square feet.

(ii) Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition A in the section of *Reporting and Recordkeeping* shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall be maintained. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.

(iii) 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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 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.

A. A log showing the following for the area sources in this project:

A1. Active coal pile:

(i) The date and size of the pile.

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

- The dates of each application,
- The chemical dust suppressant used,
- The application intensity (gal/yd^2),
- Dilution ratio,
- The operator's initials, and
- Documentation of weather conditions, if necessary.

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

A2. Inactive storage pile:

(i) The date and size of the pile.

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

- The dates of each application,
- The chemical dust suppressant used,
- The application intensity (gal/yd^2),
- Dilution ratio,
- The operator's initials, and
- Documentation of weather conditions, if necessary.

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

A3. Rail unloading coal stockout pile:

(i) The date and size of the pile.

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

- The dates of each application;
- The chemical dust suppressant used;
- The application intensity (gal/yd^2);
- Dilution ratio;
- The operator's initials, and
- Documentation of weather conditions, if necessary.

(iii) 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 Permit 03-A-425-P4

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-006

Associated Equipment

Associated Emission Unit ID Numbers: EU-006
Emissions Control Equipment ID Number: CE-006
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-006
Emission Unit Description: Rotary Car Dumper
Raw Material/Fuel: Coal
Rated Capacity: 3500.0 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 5%[1]
Authority for Requirement: Iowa DNR Construction Permit 03-A-436-P2

[1] Standard is a 1-hr average.

Pollutant: Opacity
Emission Limit(s): 20%[2]
Authority for Requirement: Iowa DNR Construction Permit 03-A-436-P2
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

[2] Averaging period is six (6) minutes.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.005 gr/dscf; 6.43 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 03-A-436-P2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.005 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 03-A-436-P2

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

Operating Limits

A. The facility is required to schedule a PM_{10} compliance test within thirty (30) days if it exceeds the one (1) hour, 5% BACT opacity limit.
B. Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition R in the section of *Reporting and Recordkeeping* shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall

be maintained. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.

C. 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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.

D. The application of chemical dust suppressant is not required when rail unloading is done directly from the train to the plant silos without first depositing to a pile.

Authority for Requirement: Iowa DNR Construction Permit 03-A-436-P2 & 03-A-425-P4

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.

A. Rail unloading:
   (i) Records of the applications shall be maintained and shall include:
      - The dates of each application;
      - The chemical dust suppressant used;
      - The application intensity (gal/yd^2);
      - Dilution ratio;
      - The operator's initials, and
      - Documentation of weather conditions, if necessary.
   (ii) 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 Permit 03-A-436-P2 & 03-A-425-P4

NSPS and NESHAP Applicability

This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 90
Stack Opening, (inches, dia.): 82
Exhaust Flow Rate (scfm): 150,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-436-P2

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-009

Associated Equipment

Associated Emission Unit ID Numbers: EU-009
Emissions Control Equipment ID Number: CE-010
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-009
Emission Unit Description: Transfer House #1 – Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 3500.0 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 20% [1]
Authority for Requirement: Iowa DNR Construction Permit 78-A-169-S5
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

[1] Averaging period is six (6) minutes.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.31 lb/hr; 0.005 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 78-A-169-S5

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.31 lb/hr; 0.005 gr/dscf; 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 78-A-169-S5
567 IAC 23.3(2) "a"

Operational Limits & Requirements

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

Operating Limits

A. Maintain Baghouse (CE-010) according to manufacturer specifications and maintenance schedule.

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.

A. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Baghouse (CE-010).

Authority for Requirement: Iowa DNR Construction Permit 78-A-169-S5

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 74
Stack Opening, (inches, dia.): 35.04
Exhaust Flow Rate (scfm): 30,600
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 78-A-169-S5

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-010

Associated Equipment

Associated Emission Unit ID Numbers: EU-010; EU-117A
Emissions Control Equipment ID Number: CE-011
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-010	EU-010	Transfer House #2 - Coal Conveying	Coal	3200.0 ton/hr
	EU-117A	Emergency Reclaim Hopper to Belt 8		1200.0 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 0%[1]; 20%[1]
Authority for Requirement: Iowa DNR Construction Permit 03-A-438-P2
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

[1]Standard is a 6-minute average.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.05 lb/hr; 0.0037 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 03-A-438-P2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.0037 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 03-A-438-P2

Operational Limits & Requirements

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

Operating limits are not required at this time.

NSPS and NESHAP Applicability

This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 56
Stack Opening, (inches, dia.): 39
Exhaust Flow Rate (scfm): 24,500
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-438-P2

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-011

Associated Equipment

Associated Emission Unit ID Numbers: EU-011
Emissions Control Equipment ID Number: CE-012
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-011
Emission Unit Description: Transfer House #3 - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 3200.0 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): No VE; 20%
Authority for Requirement: Iowa DNR Construction Permit 78-A-171-S2
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.35 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 78-A-171-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 78-A-171-S2
567 IAC 23.3(2) "a"

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

Operating Limits

A. The baghouse shall be operated and maintained according to the manufacturer's recommendations.

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.

A. A log of all maintenance activities on the baghouse shall be maintained. This log shall include the date and a description of the activity undertaken.
B. An observation of this emission point shall be made once weekly while operating.
C. A log of the emission point observation shall be maintained. This log shall include the time and date of each observation, identification of the person making the observations and whether any visible emissions were observed.

Authority for Requirement: Iowa DNR Construction Permit 78-A-171-S2

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 12
Stack Opening, (inches, dia.): 35
Exhaust Flow Rate (scfm): 21,200
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 78-A-171-S2

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-013

Associated Equipment

Associated Emission Unit ID Numbers: EU-013
Emissions Control Equipment ID Number: CE-013
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-013
Emission Unit Description: Transfer House #4 - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 3600.0 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 5%[1]; 20%[2]
Authority for Requirement: Iowa DNR Construction Permit 03-A-439-P2
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

[1] Standard is a 1-hour average.
[2] Average period is six (6) minutes.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.14 lb/hr; 0.005 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 03-A-439-P2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.005 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 03-A-439-P2

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

Operating Limits

A. The facility is required to schedule a PM_{10} compliance test within thirty (30) days if it exceeds the one (1) hour, 5% BACT opacity limit.

Authority for Requirement: Iowa DNR Construction Permit 03-A-439-P2

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50
Stack Opening, (inches, dia.): 39
Exhaust Flow Rate (scfm): 26,500
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-439-P2

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-014

Associated Equipment

Associated Emission Unit ID Numbers: EU-014
Emissions Control Equipment ID Number: CE-014
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-014
Emission Unit Description: East Coal Silo #3 - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 3200.0 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 20% [(1)]
Authority for Requirement: Iowa DNR Construction Permit 78-A-174-S4
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

[(1)]If visible emissions are observed, the owner/operator shall promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.14 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 78-A-174-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 78-A-174-S4
567 IAC 23.3(2) "a"

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 218
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 26,550
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 78-A-174-S4

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-015

Associated Equipment

Associated Emission Unit ID Numbers: EU-015
Emissions Control Equipment ID Number: CE-015
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-015
Emission Unit Description: West Coal Silo #3 - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 3200.0 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 20% [(1)]
Authority for Requirement: Iowa DNR Construction Permit 78-A-175-S3
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

[(1)]If visible emissions are observed, the owner/operator shall promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.98 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 78-A-175-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 78-A-175-S3
567 IAC 23.3(2) "a"

Operational Limits & Requirements

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

Operating Limits

Operational limits are not required at this time.

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 218
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 22,850
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 78-A-175-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.

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-016

Associated Equipment

Associated Emission Unit ID Numbers: EU-016
Emissions Control Equipment ID Number: CE-017
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-016
Emission Unit Description: 1&2 Crusher - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 500.0 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): No VE; 20%
Authority for Requirement: Iowa DNR Construction Permit 79-A-254-S2
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.33 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 79-A-254-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 79-A-254-S2
567 IAC 23.3(2) "a"

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

Operating Limits

A. The baghouse shall be operated and maintained according to the manufacturer's recommendations.

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.

A. A log of all maintenance activities on the baghouse shall be maintained. This log shall include the date and a description of the activity undertaken.
B. An observation of this emission point shall be made once weekly while operating.
C. A log of the emission point observation shall be maintained. This log shall include the time and date of each observation, identification of the person making the observations and whether any visible emissions were observed.

Authority for Requirement: Iowa DNR Construction Permit 79-A-254-S2

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 12
Stack Opening, (inches, dia.): 27
Exhaust Flow Rate (scfm): 12,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 79-A-254-S2

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-017

Associated Equipment

Associated Emission Unit ID Numbers: EU-017
Emissions Control Equipment ID Number: CE-018
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-017
Emission Unit Description: 1&2 Tripper - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 500.0 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): No VE; 20%
Authority for Requirement: Iowa DNR Construction Permit 79-A-255-S2
40 CFR 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.94 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 79-A-255-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 79-A-255-S2
567 IAC 23.3(2) "a"

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

Operating Limits

A. The baghouse shall be operated and maintained according to the manufacturer's recommendations.

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.

A. A log of all maintenance activities on the baghouse shall be maintained. This log shall include the date and a description of the activity undertaken.
B. An observation of this emission point shall be made once weekly while operating.
C. A log of the emission point observation shall be maintained. This log shall include the time and date of each observation, identification of the person making the observations and whether any visible emissions were observed.

Authority for Requirement: Iowa DNR Construction Permit 79-A-255-S2

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 127
Stack Opening, (inches, dia.): 39
Exhaust Flow Rate (scfm): 26,400
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 79-A-255-S2

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)

See Appendix A for the CAM Plan.

Emission Point ID Number: EP-018

Associated Equipment

Associated Emission Unit ID Numbers: EU-018
Emissions Control Equipment ID Number: CE-019
Emissions Control Equipment Description: Water Spray/Sweeping & Dust Suppressant
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-018
Emission Unit Description: CCR Haul Road
Raw Material/Fuel: CCR Material
Rated Capacity: 80 Trucks per Day

Applicable Requirements

Operational Limits & Requirements

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

A. The following conditions are required on the haul roads at the facility in order for the roads to meet the BACT emission rates:

A1. Haul truck loads shall be enclosed or covered;

A2. In order to protect the NAAQS, the maximum number of trucks associated with ash and FGD hauling (all units) shall not exceed 80 trucks per day.

A3. For paved roads:

i. Fugitive emissions of paved haul roads shall be controlled to an effective control efficiency of 80% by either water flushing followed by sweeping or using a street sweeper that is certified to achieve a pick-up efficiency of 80%. The control and record keeping requirements described in Condition Q in the section of *Reporting and Recordkeeping* shall begin at the same time as the startup of Boiler 4. The control efficiency of 80% shall be achieved by either using a certified sweeper once per day or by water flushing followed by sweeping of the paved haul roads once per day. The water spray rate shall be a minimum of 0.23 gallons per square yard.

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 35°F (1.7°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.

A4. For unpaved roads:

i. Fugitive emissions from unpaved haul roads shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition Q in the section of Reporting and Recordkeeping. shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall be maintained on all haul roads. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican 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 35°F (1.7°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 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.

A. A log showing the following for haul roads:

A1. The date and number of trucks associated with Units 1, 2, 3 and 4.

A2. Paved roads:

i. Records of either the use of a certified sweeper or the applications shall be maintained and shall include:
- The dates of each application or use of certified sweeper;
- The amount of water applied (if applicable);
- The areas treated or swept by certified sweeper, and
- The operator's initials.

ii. If water is to be used and is not applied when scheduled then the records should so indicate and provide and an explanation.

A3. Unpaved roads:

i. Records of the applications shall be maintained and shall include:
- The dates of each application;
- The chemical dust suppressant used;
- The application intensity (gal/yd^2);
- Dilution ratio;
- The operator's initials, and
- Documentation of road and weather conditions, if necessary.

Authority for Requirement: Iowa DNR Construction Permit 03-A-425-P4; 75-A-357-P6

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-019

Associated Equipment

Associated Emission Unit ID Numbers: EU-019A, EU-019B, EU-019C
Emissions Control Equipment ID Number: CE-020
Emissions Control Equipment Description: Water Spray
Continuous Emissions Monitors ID Numbers: None

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-019	EU-019A	CCR Monofill Disposal	CCR Material	80 Trucks per Day
	EU-019B	CCR Monofill Grading	CCR Material	NA
	EU-019C	CCR Monofill Erosion	CCR Material	122 Acres

Applicable Requirements

Fugitive Dust:
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.

Water wagons shall be used to wet the waste material during disposal site grading activities.

Authority for Requirement: Iowa DNR Construction Permits 03-A-425-P4 & 75-A-357-P6

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-020, EP-021

Associated Equipment

Associated Emission Unit ID Numbers: EU-020, EU-021
Emissions Control Equipment ID Number: CE-021, CE-022
Emissions Control Equipment Description: Overtube with Suction
Continuous Emissions Monitors ID Numbers: None

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-020	EU-020	Flyash Truck Loading #3	Flyash	100.0 ton/hr
EP-021	EU-021	Flyash Truck Loading #1&#2	Flyash	100.0 ton/hr

Applicable Requirements

Fugitive Dust:
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.

Operational limits are not required at this time.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-025

Associated Equipment

Associated Emission Unit ID Numbers: EU-025
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-025
Emission Unit Description: Glycol System Expansion Tank
Raw Material/Fuel: Ethylene Glycol
Rated Capacity: 0.20 gal/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.

Emission limits are not required at this time.

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

Operational limits are not required at this time.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-027

Associated Equipment

Associated Emission Unit ID Numbers:
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-027
Emission Unit Description: Diesel Engine for Fire Pump
Raw Material/Fuel: Diesel
Rated Capacity: 370 HP

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Emission limits are not required at this time.

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This equipment is subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63, Subpart ZZZZ].

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

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-030 and EP-031 (Coal Handling)

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-030	EU-030	Stockout Conveyor 7 Coal Conveying	Coal	3500 ton/hr
EP-031	EU-031A	Stacker/Reclaimer	Coal	3500 ton/hr
	EU-031B	Stacker/Reclaimer	Coal	3500 ton/hr
	EU-031C	Stacker/Reclaimer	Coal	3500 ton/hr
	EU-031D	Stacker/Reclaimer	Coal	1600 ton/hr

EP	EU	Emission Unit Description	CE& Description	CEM	IDNR Construction Permit
EP-030	EU-030	Stockout Conveyor 7 Coal Conveying	CE005 Dust Supperessant	None	03-A-425-P4 78-A-169-S5
EP-031	EU-031A	Stacker/Reclaimer	CE-005 Dust Supperessant	None	03-A-425-P4
	EU-031B	Stacker/Reclaimer			
	EU-031C	Stacker/Reclaimer			
	EU-031D	Stacker/Reclaimer			

Applicable Requirements

Operational Limits & Requirements

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

A. Stacker conveyor:

A1. Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition R in the section of *Reporting and Recordkeeping* shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall be maintained. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.

A2. 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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.

A3. The application of chemical dust suppressant is not required when rail unloading directly from the train to the plant silos without first depositing to a pile.

B. Transfer to active pile:

B1. Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition R in the section of Reporting and Recordkeeping shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall be maintained. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.

B2. 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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.

C. Bucket reclaim:

C1. Fugitive emissions shall be controlled by applying a chemical dust suppressant. Applications of the selected chemical dust suppressant and the record keeping requirements described in Condition R in the section of Reporting and Recordkeeping shall begin at the same time as the startup of Boiler 4. A control efficiency of 95% shall be maintained. MidAmerican may elect to use any chemical dust suppressant that is capable of achieving the 95% control efficiency. In the event that the manufacturer or distributor of a chemical dust suppressant recommends different amounts of chemical dust suppressant or MidAmerican chooses to use a different chemical dust suppressant, MidAmerican shall notify DNR of the change in application rates and/or chemical dust suppressant and the manufacturer's/distributor's recommendations.

C2. 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 35°F (1.7°C) or other conditions due to weather cause the chemical dust suppressant to not be applied 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.

Authority for Requirement: Iowa DNR Construction Permits 03-A-425-P4 & 78-A-169-S5

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.

A log showing the following for the volume sources associated with this project:

A. Stacker conveyor:

A1. Records of the applications shall be maintained and shall include:
- The dates of each application,
- The chemical dust suppressant used,
- The application intensity (gal/yd^2),
- Dilution ratio,
- The operator's initials, and
- Documentation of weather conditions, if necessary.

A2. If the selected chemical dust suppressant is not applied as planned, then the records should so indicate and provide an explanation.

B. Transfer to active pile:

B1. Records of the applications shall be maintained and shall include:
- The dates of each application;
- The chemical dust suppressant used;
- The application intensity (gal/yd^2);
- Dilution ratio;
- The operator's initials, and
- Documentation of weather conditions, if necessary.

B2. If the selected chemical dust suppressant is not applied as planned, then the records should so indicate and provide an explanation.

C. Bucket reclaim:

C1. Records of the applications shall be maintained and shall include:
- The dates of each application;
- The chemical dust suppressant used;
- The application intensity (gal/yd^2);
- Dilution ratio;
- The operator's initials, and
- Documentation of weather conditions, if necessary.

C2. If the selected chemical dust suppressant is not applied as planned, then the records should so indicate and provide an explanation

<u>Monitoring Requirements</u>

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-112

Associated Equipment

Associated Emission Unit ID Numbers:
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-112
Emission Unit Description: Unit 1&2 Aux Boiler
Raw Material/Fuel: Natural Gas
Rated Capacity: 6.0 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.

Emission limits are not required at this time.

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

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

Authority for Requirement: 40 CFR 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 Number: EP-113

Associated Equipment

Associated Emission Unit ID Numbers:
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-113
Emission Unit Description: Unit 1&2 Emergency Generator
Raw Material/Fuel: Diesel Fuel
Rated Capacity: 112 HP

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Emission limits are not required at this time.

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

This equipment is subject to National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63, Subpart ZZZZ].

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

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-114

Associated Equipment

Associated Emission Unit ID Numbers: EU-114
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-114
Emission Unit Description: Unit 3 Emergency Generator
Raw Material/Fuel: #2 Fuel Oil
Rated Capacity: 1,214 Brake Horsepower

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [1]
Authority for Requirement: Iowa DNR Construction Permit 11-A-610
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.12 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 11-A-610

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.12 lb/hr; 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 11-A-610
567 IAC 23.3(2) "a"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.01 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 11-A-610

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 13.86 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 11-A-610

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 0.62 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 11-A-610

Operational Limits & Requirements

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

Operating Limits

A. This engine is limited to burning diesel fuel oil only.
B. This engine is limited to operating a maximum of 5685 hours in any rolling 12-month period.
C. This engine is limited to operating for emergency situations and required testing and maintenance. In accordance with §60.4211(e), the engine is limited to operating a maximum of 100 hours per year for maintenance checks and readiness testing. This engine is not allowed to operate as a peak shaving unit.
D. In accordance with §60.4207(b), the diesel fuel purchased for use in this engine shall meet the following specifications from 40 CFR §80.510(b) for nonroad diesel fuel:
   D1. a maximum sulfur content of 15 ppm (0.0015%) by weight; and
   D2. a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.
E. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.
F. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the manufacturer. The owner or operator may only change engine settings that are permitted by the manufacturer.

Reporting 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.

A. The owner or operator shall maintain the following monthly records:
   A1. the total number of hours that the engine operated;
   A2. the number of hours that the engine operated for maintenance checks and readiness testing; and
   A3. the rolling 12-month total amount of the number of hours that the engine operated.
B. The owner or operator shall maintain an annual record of the number of hours that the engine operated for maintenance checks and readiness testing.
C. The owner or operator of the engine shall comply with the requirements of Condition D listed in *Operating Limits* by one of the following methods:
   C1. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR §80.510(b);
   C2. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
   C3. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

Authority for Requirement: Iowa DNR Construction Permit 11-A-610

NSPS and NESHAP Applicability

A. This engine is subject to NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
The engine is an emergency stationary internal combustion engine that is not a fire pump engine.

A1. In accordance with §60.4211(c), the engine must be certified by its manufacturer to comply with the emissions standards from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are:

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

(1) Non-methane hydrocarbon

A2. In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required.

B. This equipment is subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63, Subpart ZZZZ].

Authority for Requirement: 40 CFR 60 Subpart IIII; 40 CFR 63 Subpart ZZZZ

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 48.75
Stack Opening, (inches, dia.): 24
Exhaust Flow Rate (scfm): 2,265
Exhaust Temperature (°F): 955
Discharge Style: Horizontal Discharge
Authority for Requirement: Iowa DNR Construction Permit 11-A-610
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)

Emission Point ID Number: EP-117B

Associated Equipment

Associated Emission Unit ID Numbers: EU-117B
Emissions Control Equipment ID Number: CE-005
Emissions Control Equipment Description: Dust Suppressant
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-117B
Emission Unit Description: Emergency Reclaim Hopper – Coal Dumping
Raw Material/Fuel: Coal
Rated Capacity: 1,200 ton/hour

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20%
Authority for Requirement: Iowa DNR Construction Permit 78-A-172-S1
567 IAC 23.1(2) "v"
40 CFR 60 Subpart Y

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.17 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 78-A-172-S1

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

No operating limits are required on this emission unit at this time.

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.

No operating condition monitoring is required on this emission unit at this time.

NSPS and NESHAP Applicability
This emission point is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance for Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

There is no stack associated with this emission unit as it vents internally to a building.

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-119A and EP-119B

Associated Equipment

Associated Emission Unit ID Numbers: EU-119A and EU-119B
Emissions Control Equipment ID Number: CE-119A and CE-119B
Emissions Control Equipment Description: Baghouses
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Con. Permit
EP-119A	EU-119A	1&2 Flyash Storage Silo	Flyash	4.0 ton/hr	96-A-1279-S1
EP-119B	EU-119B	1&2 Flyash Silo Bin	Flyash	4.0 ton/hr	96-A-1280-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): 20%
Authority for Requirement: Iowa DNR Construction Permit 96-A-1279-S1; 96-A-1280-S1
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 96-A-1279-S1; 96-A-1280-S1
567 IAC 23.3(2) "a"

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

Operational limits are not required at this time.

Emission Point Characteristics
The emission points shall conform to the specifications listed below.

	EP-119A	**EP-119B**
Stack Height, (ft, from the ground)	13	64
Stack Opening (inches)	6 (diameter)	20×9
Exhaust Flow Rate (scfm)	954	6
Exhaust Temperature (ºF)	70	70
Discharge Style	Horizontal	Horizontal
Authority for Requirement	96-A-1279-S1	96-A-1280-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.

Visible emissions shall be observed on a weekly basis to ensure that none occur when the emission unit on this emission point is at or near full capacity. 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 observation of the violation.

If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake 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.

Alternative Monitoring requirements: In lieu of the visible emissions monitoring required above, the permittee may install and operate a bag leak detection system. If this option is chosen, the permittee shall following the monitoring approach listed under section III of the CAM plan for EP-006 (Page 41).

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 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)

*: Facility O&M is only required for EP-119A. There is no O&M plan required for EP-119B.

Emission Point ID Number: EP-141

Associated Equipment

Associated Emission Unit ID Numbers: EU-141
Emissions Control Equipment ID Number: CE-141A, CE-141B, CE141C, CE141D, CD141E
Emissions Control Equipment Description: See Table-1 below
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-141
Emission Unit Description: Unit 4 Boiler
Raw Material/Fuel: Subbituminous Coal; #2 Fuel Oil
Rated Capacity: 7,675 MMBtu/hr

Table -1

CE Number	Control Description
CE-141A	Baghouse
CE-141B	Selective Catalytic Reduction (SCR)
CE-141C	Flue Gas Desulfurization (FGD)
CE-141D	Low NO_x Burner (LNB)
CE-141E	Activated Carbon Injection (ACI)

Table -2

CEM	Pollutant Monitored	Date of Specification Test
ME004A	SO_2	2007-04-27
ME004AL	SO_2	2007-04-27
ME004B	NO_x	2007-04-27
ME004BL	NO_x	2007-04-27
ME004C	Diluent CO_2	2007-04-27
ME004D	Flow	2007-04-27
ME004E	Opacity	2007-04-27
ME004F	CO	2007-04-27
ME004FL	CO	2007-04-27
ME004G	SO_2	2007-04-27
ME004H	Diluent CO_2	2007-04-27

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5%	3-hour average	COMS	Iowa DNR Construction Permit 03-A-425-P4	BACT Limit
20%[1]	6-Minute Average	COMS	Iowa DNR Construction Permit 03-A-425-P4 40 CFR 60 Subpart Da 567 IAC 23.1(2) "z"	None

[1] Opacity shall not exceed 20% (6-minute average), except for one (1) 6-minute period per hour of not more than 27% opacity. See 40 CFR §60.42Da(b).

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.025 lb/MMBtu	3-Test Run	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT
191.9 lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.027 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT
13 ng/J Heat Input (0.03 lb/MMBtu) [1,2]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4 40 CFR 60 Subpart Da 567 IAC 23.1(2) "z"	None
0.018 lb/MMBtu [2]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case by case MACT

[1] See 40 CFR §60.42Da(a) for detailed calculation.

[2] Federal PM limit includes only filterable particulate matter.

Sulfur Dioxide (SO_2)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.1 lb/MMBtu[1]	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4	BACT
3,362 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 03-A-425-P4	BACT
520 ng/J Heat Input (1.20 lb/MMBtu) [2]	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4 40 CFR 60 Subpart Da 567 IAC 23.1(2) "z"	NA
1,050.0 lb/hr	3-Hour Rolling Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4	NAAQS

[1] Does not include periods of startup, shutdown, and malfunction.

[2] 520 ng/J = 1.20 lb/MMBtu. This was derived from solid fossil fuel. See Construction Permit 03-A-425-P4 Section 10c (page 6) or 40 CFR §60.43Da(a) for sulfur dioxide (SO_2) for detailed calculations.

Nitrogen Oxides (NO_x)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.07 lb/MMBtu [1]	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4	BACT
2,353 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 03-A-425-P4	BACT
200 ng/J Gross Energy Output [2] (1.6 lb/MWh gross)	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4 40 CFR 60 Subpart Da 567 IAC 23.1(2) "z"	NA
573.3 lb/hr	Calendar Month Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4	NAAQS

[1] Does not include periods of startup, shutdown, and malfunction.

[2] This was derived from solid fossil fuel. See Construction Permit 03-A-425-P4 Section 10c (page 6) or 40 CFR §60.44Da(d)(1) for NO_x for detailed calculations.

Volatile Organic Compounds (VOC)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.0036 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT
121 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-425-P4	BACT

Carbon Monoxide (CO)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.154 lb/MMBtu	Calendar Day Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4	BACT
5,177 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 03-A-425-P4	BACT
1,966.0 lb/hr	1-Hour Standard	CEMS	Iowa DNR Construction Permit 03-A-425-P4	NAAQS

Lead (Pb)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
2.6×10^{-5} lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT
0.20 lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	NAAQS

Fluorides (F)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
9×10^{-4} lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT

Total Reduced Sulfur (S)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.001 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT

Sulfuric Acid Mist (H_2SO_4)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.00421 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	BACT

Mercury (Hg)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.013 lb/hr[1]	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

[1] This limit is for total mercury emissions. Total mercury includes particulate bound mercury and both forms of vapor phase mercury (elemental and oxidized).

Hydrogen Chloride (HCl)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
2.9×10^{-3} lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

Total Selected Metals (TSM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
1.04×10^{-4} lb/MMBtu [1]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

[1] Total Selected Metals (TSM) means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium.

Acetaldehyde

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5.8×10^{-6} lb/MMBtu[1]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

Benzene

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
2.96×10^{-5} lb/MMBtu[1]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

Isophorone

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
7.45×10^{-6} lb/MMBtu[1]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

Toluene

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
3.72×10^{-4} lb/MMBtu[1]	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-425-P4	Case-by Case MACT

[1] The 112(g) emission limits will be reevaluated after actual test data has been gathered in order to determine if a new emission limit needs to be established whether that be higher or lower than the current emission limit.

Operational Limits & Requirements

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

Operating Limits

A. This emission unit shall be limited to firing on coal and #2 fuel oil (for light off, startup, and flame stabilization).
B. The sulfur (S) content of the fuel used shall not exceed 0.625 lbs of S/MMBTU.
C. Per 40 CFR §60.42Da(a)(2), particulate matter (federal) emissions shall not exceed 1% of the potential combustion concentration (99% reduction) when combusting coal.
D. Per 40 CFR §60.43Da(a)(1) and 40 CFR §60.43Da(a)(2), sulfur dioxide emissions shall not exceed:
   D1. 520 ng/J (1.2 lb/MMBTU) heat input and 10% of the potential combustion concentration (90% reduction) when combusting coal, or
   D2. 30% of the potential combustion concentration (70% reduction), when emissions are less than 260 ng/J (0.60 lb/MMBTU) heat input. Compliance with this standard is determined on a 30-day rolling average basis.
E. Per 40 CFR §60.48a(d), during emergency conditions an affected facility with a malfunctioning flue gas desulfurization system may be operated if sulfur dioxide emissions are minimized by:
   E1. Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed;
   E2. Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any sulfur dioxide emission reduction or which would have suffered significant physical damage if they had remained in operation, and
   E3. Designing, constructing, and operating a spare flue gas desulfurization system module for an affected facility larger than 365 MW (1,250 million Btu/hr) heat input (approximately 125 MW electrical output capacity). The Administrator may at his discretion require the owner or operator within 60 days of notification to demonstrate spare module capability. To demonstrate this capability, the owner or operator must demonstrate compliance with the appropriate requirements under paragraph (a), (b), (d), (e), and (h) under 60 CFR §60.43a for any period of operation lasting from 24 hours to 30 days when:
      i. Any one flue gas desulfurization module is not operated;
      ii. The affected facility is operating at the maximum heat input rate;
      iii. The fuel fired during the 24-hour to 30-day period is representative of the type

and average sulfur content of fuel used over a typical 30-day period, and

iv. The owner or operator has given the Administrator at least 30 days notice of the date and period of time over which the demonstration will be performed.

F. The owner or operator shall submit the written reports required under NSPS Subparts A and Subpart Da to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

G. The minimum sorbent feed rate of the Flue Gas Desulfurization System shall be 0.40 lbs of lime/lb of inlet SO_2 based on 90% available CaO in the lime, expressed as a three (3) hour average except for eight (8) hours per calendar month in which the three (3) hour average minimum sorbent feed rate may be less than 0.40 lbs of lime/lb of inlet SO_2.

H. The minimum ammonia feed rate of the Selective Catalytic Reduction (SCR) system shall be 0.43 lbs of urea per pound of inlet SCR NO_x, expressed as a thirty (30) day rolling average.

I. The minimum halogenated activated carbon injection rate of the Activated Carbon Injection (ACI) system shall be 1.2 pounds of halogenated activated carbon per million standard cubic feet ($MMft^3$ or MMCF) of exhaust gas, expressed as a thirty (30) day rolling average.

J. The owner or operator may, but is not required to, treat the coal burned in this unit with chemicals containing additives including a mineral composite of calcium silicate components and other calcium compounds containing iron and aluminum.

K. A bag leak detection system must be installed to meet the following criteria:

K1. At least one detector must be located in each compartment of the baghouse.

K2. The bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in "Fabric Filter Bag Leak Detection Guidance," EPA-454/R-98-015, September 1997.

K3. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

K4. The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

K5. The bag leak detection system must be equipped with a device to continuously record the output signal from the sensors.

K6. The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

K7. The system's instrumentation and alarm may be shared among detectors.

K8. The system's alarm shall sound no more than 5% of the operating time during a 6-month period.

L. Within sixty (60) days of Departmental approval of the last required test results from construction permit 03-A-425-P4 for acetaldehyde, benzene, isophorone, and toluene the owner or operator shall submit the following to the Department:

L1. An analysis for acetaldehyde, benzene, isophorone, and toluene to establish new 112(g) case-by-case MACT limits for those pollutants. This analysis shall include:

i. A summary of each test.
ii. The result of each individual run.
iii. All outliers in the data set and the methodology used to establish outliers.
iv. The average of all runs conducted with the outliers removed.
v. The standard deviation of all runs conducted with the outliers removed.
vi. The upper bound 95% confidence level of all runs conducted with the outliers removed. The formula used shall be:

$$95\% = avg + t\frac{S}{\sqrt{n}}$$

where: avg = average of the test runs
S = standard deviation of the test runs
t = percentage point of the *t* distribution with n-1 degrees of freedom
n = number of test runs

L2. An analysis showing the correlation (or lack thereof) between CO and the organic HAPs that were tested.
L3. A request to establish the 112(g) case-by-case limits for organic HAP emissions based on the testing conducted and the required analysis.

M. The waste material collected by the fabric filter and stored in the FGD waste silo system shall be processed through a pug-mill during loadout to increase the material moisture content to a minimum of 20%. The owner or operator shall conduct daily testing of the moisture content of the FGD waste material. These requirements do not apply to waste material being sold for beneficial use.
N. The owner or operator is allowed, but not required, to add an aqueous calcium bromide chemical and/or an aqueous calcium chloride chemical to the coal prior to combustion for added mercury (Hg) control.
O. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 – 40 CFR §63.19) and Da (40 CFR §60.40Da – 40 CFR §60.52Da) not specifically listed in this permit.

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.

A. The date and an analysis showing the sulfur content and heat input representative of the coal burned for that day.
B. Per 40 CFR §60.51Da(a), the performance test data from the initial performance test and from the performance evaluation of the continuous monitors (including the transmissometer) for NO_x, SO_2, and PM emissions shall be submitted to the Administrator.
C. Per 40 CFR §60.51Da(b), the following information for NO_x and SO_2 shall be reported to the Administrator for each twenty-four (24) hour period:
C1. Calendar date;
C2. The average sulfur dioxide and nitrogen oxide emission rates (ng/J or lb/million Btu) for each thirty (30) successive boiler operating days, ending with the last thirty (30) day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken;

C3. Percent reduction of the potential combustion concentration of sulfur dioxide for each thirty (30) successive boiler operating days, ending with the last thirty (30) day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken;

C4. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least eighteen (18) hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken;

C5. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO_2 only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions;

C6. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

C7. Identification of times when hourly averages have been obtained based on manual sampling methods;

C8. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system;

C9. Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3:

D. Per 40 CFR §60.51Da(c), if the minimum quantity of emission data as required by 40 CFR §60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR §60.48a(h) shall be reported to the Administrator for that thirty (30) day period:

D1. The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.

D2. The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.

D3. The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.

D4. The applicable potential combustion concentration.

D5. The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (Estd) as applicable.

E. Per 40 CFR §60.51Da(d), if any standards under 40 CFR §60.43Da are exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:

E1. Indicating if emergency conditions existed and requirements under § 60.48Da(d) were met during each period, and

E2. Listing the following information:

i. Time periods the emergency condition existed;

ii. Electrical output and demand on the owner or operator's electric utility system and the affected facility;

iii. Amount of power purchased from interconnected neighboring utility companies during the emergency period;

iv. Percent reduction in emissions achieved;
v. Atmospheric emission rate (ng/J) of the pollutant discharged; and
vi. Actions taken to correct control system malfunction

F. Per 40 CFR §60.51Da(e), if fuel pretreatment credit toward the sulfur dioxide emission standard under 40 CFR §60.43Da is claimed, the owner or operator of the affected facility shall submit a signed statement:
   F1. Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of 40 CFR §60.50Da and Method 19 (appendix A); and
   F2. Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.

G. Per 40 CFR §60.51Da(f), any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

H. Per 40 CFR §60.51Da(h), the owner or operator of the affected facility shall submit a signed statement indicating whether:
   H1. The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
   H2. The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
   H3. The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
   H4. Compliance with the standards has or has not been achieved during the reporting period.

I. Per 40 CFR §60.51Da(i), for the purposes of the reports required under 40 CFR §60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under 40 CFR §60.42Da(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.

J. Per 40 CFR §60.51Da(j), owner or operator shall submit the written reports required under 40 CFR §60.51Da and 40 CFR 60, Subpart A to the Administrator semiannually for each six (6) month period. All semiannual reports shall be postmarked by the thirtieth day following the end of each six (6) month period

K. Per 40 CFR §60.51Da(k), the owner or operator of an affected facility may submit electronic quarterly reports for SO_2 and/or NO_x and/or opacity in lieu of submitting the written reports required under 40 CFR §60.51Da(b) and 40 CFR §60.51Da(i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator,

indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative form.

L. This emission unit is subject to all applicable recordkeeping and reporting requirements set forth in NSPS Subparts A (40 CFR §60.1 – 40 CFR §63.19) and Da (40 CFR §60.40Da – 40 CFR §60.52Da) not specifically listed in this permit

M. The sorbent feed rate of the Flue Gas Desulfurization System (in lb/lb) expressed as a three (3) hour rolling average.

N. The urea feed rate of the SCR system (in lb/lb) expressed as a thirty (30) day rolling average.

O. The activated carbon feed rate of the ACI system (in lb/MMft^3) expressed as a thirty (30) day rolling average.

P. The following records must be maintained from the bag leak detection system:

P1. The date, time and duration of each system alarm.

P2. The time corrective action was initiated and completed.

P3. A brief description of the cause of the alarm and the corrective action.

P4. A record of the percent of operating time during each 6-month period that the alarm sounds. In calculating the operating time percentage,

i. if an inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted;

ii. if corrective action is required, each alarm shall be counted as a minimum of one (1) hour;

iii. if it takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

Q. The results of all FGD waste material moisture content tests.

R. The date and the average hourly rate of aqueous calcium bromide and/or calcium chloride that is added to the coal.

Authority for Requirement: Iowa DNR Construction Permit 03-A-425-P4

NSPS and NESHAP Applicability

This facility is subject to National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units [40 CFR 63 Subpart UUUUU].

Authority for Requirement: 40 CFR 63 Subpart UUUUU

This emission point is subject to NSPS Subpart A – General Provisions and Subpart Da – Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.

Authority for Requirement: 40 CFR 60 Subpart Da

This emission point is also subject to NESHAP Subpart A – General Provisions and Subpart B - Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections.

Authority for Requirement: 40 CFR 63 Subpart B

Emission Point Characteristics (EP-141)

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 551
Stack Opening, (inches, dia.): 296
Exhaust Flow Rate (scfm): 2,352,100
Exhaust Temperature (°F): 165
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-425-P4

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.

Stack Testing:

Pollutant – Particulate Matters (PM and PM10)
1st Stack Test to be Completed by March 12, 2014
2nd Stack Test to be Completed between September 12, 2015 and September 12, 2016
Test Method - Iowa Compliance Sampling Manual Method 5 for PM
40 CFR 51, Appendix M, 201A with 202 or approved alternative test method for PM10
Authority for Requirement – 567 IAC 22.108(3)

Mercury Emissions Testing and Monitoring (State Only)

EP-141 is subject to the mercury emissions testing and monitoring requirements in 567 IAC 25.3. The facility shall conduct stack testing, request for a Low Mass Emitter (LME) classification, or install and operate a continuous emissions monitoring system. Refer to 567 IAC 25.3 for complete and detailed requirements.

Authority for Requirement: 567 IAC 25.3

Continuous Emissions Monitoring:

A. The following monitoring systems are required:
   - *Opacity:*

   In accordance with 40 CFR §60.49Da(a), the owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) 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).

Per 40 CFR §60.48Da(p), the owner or operator may elect to install, certify, maintain and operate a CEMS measuring PM emissions discharged to the atmosphere and record the output of the system as specified in 40 CFR §60.48Da(p)(1) through 40 CFR §60.48Da(p)(8). If the owner or operator elects to use the PM CEMS in lieu of an opacity monitor to demonstrate compliance with the NSPS, the opacity monitor is still required as the monitor shall also be used to demonstrate compliance with the BACT emission standards in this permit.

- *SO_2:*

In accordance with 40 CFR §60.49Da(b), the owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) and record the output of the system, for measuring sulfur dioxide (SO_2) emissions, except where natural gas is the only fuel combusted, as follows:

(1) Install, calibrate, maintain, and operate a CEMS and record the output of the system, for measuring sulfur dioxide (SO_2) emissions discharged to the atmosphere or

(2) If the owner or operator has installed and certified a SO_2 CEMS according to the requirements of 40 CFR §75.21 and 40 CFR 75, Appendix B, that CEMS may be used to meet the SO_2 monitoring requirements provided:

  (i) A CO_2 or O_2 continuous monitoring system is installed, calibrated, maintained and operated at the same location in accordance with 40 CFR §60.49Da(d); and

  (ii) For sources subject to an SO_2 emission limit in lb/MMBTU under §60.43Da:

    (a) When relative accuracy testing is conducted, the SO_2 concentration data and the CO_2 (or O_2) data are collected simultaneously; and

    (b) In addition to meeting the applicable SO_2 and CO_2 (or O_2) relative accuracy specifications in Figure 2 of 40 CFR 75 Appendix B, the relative accuracy (RA) standard in 40 CFR 60, Appendix B, Performance Specification 2 (PS2), Section 13.2 is met when the RA is calculated on a lb/MMBTU basis and

  (iii) The reporting requirements of 40 CFR §60.51Da are met. The SO_2 and CO_2 (or O_2) data reported to meet the requirements of 40 CFR §60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR 75, Subpart D, nor shall the SO_2 data have been bias adjusted according to the procedures of 40 CFR 75.

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.

This monitor shall also be used to demonstrate compliance with the non-NSPS emission standards in this permit.

- *NO_x:*

In accordance with 40 CFR §60.49Da(c), the owner or operator shall either:

(1) Install, calibrate, maintain, and operate a CEMS and record the output of the system, for measuring nitrogen oxides (NO_x) emissions discharged to the atmosphere; or

(2) If the owner or operator has installed a NO_x emission rate CEMS to meet the requirements of 40 CFR 75 and is continuing to meet the ongoing requirements of 40 CFR 75, that CEMS may be used to meet the requirements of 40 CFR §60.49Da(c), except that the owner or operator shall also meet the requirements of 40 CFR §60.51Da. Data reported to meet the requirements of 40 CFR §60.51Da shall not include data substituted using the missing data procedures in 40 CFR 75, Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR 75.

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.

This monitor shall also be used to demonstrate compliance with the non-NSPS emission standards in this permit.

- *O_2 or CO_2:*

In accordance with 40 CFR §60.49Da(d), the owner or operator shall install, calibrate, maintain, and operate a CEMS and record the output of the system, for measuring the oxygen (O_2) or carbon dioxide (CO_2) content of the flue gases at each location where SO_2 or NO_x emissions are monitored.

- *CO:*

Compliance with the carbon monoxide (CO) emission limits of this permit shall be continuously demonstrated by the owner or operator through the use of a CEMS. Therefore, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring CO emissions discharged to the atmosphere and record the output of the system.

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.

- *Hg:*

Within one hundred twenty (120) days after final EPA approval of a mercury CEMS certification process the owner or operator shall continuously demonstrate compliance with the mercury (Hg) emission limits in this permit through the use of a combination of CEMS and stack testing as detailed in *Stack Testing*, footnote 3. Therefore, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring Hg emissions discharged to the atmosphere and record the output of the system. Prior to final

approval of the mercury CEMS certification process the owner or operator shall conduct quarterly Hg testing per the requirements of *Stack Testing*.

The system shall be designed to meet the final EPA approved mercury monitoring specification. 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.

- *Wattmeter:*

Per 40 CFR §60.49Da(k)(1), the owner or operator shall install, calibrate, maintain, and operate a wattmeter; measure gross electrical output in megawatt-hour on a continuous basis; and record the output of the monitor for demonstrating compliance with the output-based standard under 40 CFR §60.44Da(d)(1).

- *Flowmeter:*

Per 40 CFR §60.49Da(l), the owner or operator demonstrating compliance with the output-based standard under 40 CFR §60.42Da, 40 CFR §60.43Da, 40 CFR §60.44Da, or 40 CFR §60.45Da shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of 40 CFR 60, Appendix B, Performance Specification 6 and 40 CFR 60, Appendix F, Procedure 1. In addition, the owner or operator shall record the output of the system, for measuring the volumetric flow of exhaust gases discharged to the atmosphere or

Alternatively, per 40 CFR §60.49Da(m), data from a continuous flow monitoring system certified according to the requirements of 40 CFR §75.20(c) and 40 CFR 75, Appendix A, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR §75.21 and 40 CFR 75, Appendix B, may be used.

Flow rate data reported to meet the requirements of 40 CFR §60.51Da shall not include substitute data values derived from the missing data procedures of 40 CFR 75.

B. In accordance with 40 CFR §60.49Da(e), the CEMS required in Condition A for SO_2, NO_x, and either O_2 or CO_2 shall be operated and the data recorded during all periods of operation including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.

C. In accordance with 40 CFR §60.49Da(f)(1), the owner or operator shall obtain emission data for at least eighteen (18) hours in at least twenty-two (22) out of thirty (30) successive boiler operating days. If this minimum data cannot be met with a CEMS, the owner or operator shall supplement the emission data with other monitoring systems approved by the Administrator or the following reference methods and procedures:

(1) 40 CFR 60, Method 6 shall be used to determine the SO_2 concentration at the same location as the SO_2 monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.

(2) 40 CFR 60, Method 7 shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.

(3) The emission rate correction factor, integrated bag sampling and analysis procedure of 40 CFR 60, Appendix A, Method 3B shall be used to determine the O_2 or CO_2 concentration at the same location as the O_2 or CO_2 monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.
(4) The procedures in 40 CFR 60, Appendix A, Method 19 shall be used to compute each 1-hour average concentration in ng/J (1b/million Btu) heat input.

Acceptable alternative methods and procedures are given in Condition F in this section.

D. The 1-hour averages required under 40 CFR §60.13(h) are expressed in ng/J (lb/million Btu) heat input and used to calculate the average emission rates under 40 CFR §60.48Da. The 1-hour averages are calculated using the data points required under 40 CFR §60.13(h)(2).

E. Per 40 CFR §60.49Da(i), the owner or operator shall use the following methods and procedures to conduct monitoring system performance evaluations under 40 CFR §60.13(c) and calibration checks under 40 CFR §60.13(d):

(1) Methods 3B, 6, and 7 shall be used to determine O_2, SO_2, and NO_x concentrations, respectively.
(2) SO_2 or NO_x (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N_2, as applicable) under 40 CFR 60, Appendix B, Performance Specification 2.
(3) The span value for a continuous monitoring system for measuring opacity is between 60 and 80 percent.
(4) The span value for a continuous monitoring system measuring NO_x is either:
(i) 1,000 ppm or
(ii) The owner or operator may elect to use the NO_x span values determined according to Section 2.1.2 in 40 CFR 75, Appendix A.
(5) The span value of the sulfur dioxide continuous monitoring system is either:
(i) 125 percent of the maximum estimated hourly potential emissions of the fuel fired at the inlet to the sulfur dioxide control device and 50 percent of maximum estimated hourly potential emissions of the fuel fired at the outlet of the sulfur dioxide control device or
(ii) The owner or operator may elect to use the SO_2 span values determined according to Section 2.1.1 in 40 CFR 75, Appendix A.

Acceptable alternative methods and procedures are given in condition F in this section.

F. The owner or operator may use the following as alternatives to the reference methods and procedures specified:

(1) For 40 CFR 60, Appendix A: 40 CFR 60, Appendix A, Method 6, Method 6A or Method 6B (whenever 40 CFR 60, Appendix A, Method 6 and Method 3 or Method 3B data are used) or 40 CFR 60, Appendix A, Method 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages. If either 40 CFR 60, Appendix A, Method 6A or 40 CFR 60, Appendix A, Method 6B is used under 40 CFR §60.49Da(i), the conditions under 40 CFR §60.49Da(d)(1) apply. These conditions do not apply under 40 CFR §60.49Da(h).
(2) For 40 CFR 60, Appendix A: 40 CFR 60, Appendix A, Method 7, Method 7A, 7C,

7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour.

(3) For 40 CFR 60, Appendix A, Method 3: 40 CFR 60, Appendix A, Method 3A or 3B may be used if the sampling time is 1 hour.

(4) For 40 CFR 60, Appendix A, Method 3B: 40 CFR 60, Appendix A, Method 3A may be used.

G. The following data requirements shall apply to all CEMS for non-NSPS emission standards in this permit:

(1) The CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission unit except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(2) The 1-hour average PM, Hg, SO_2, 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 (Hg, NO_x, SO_2, or CO), the owner or operator shall substitute data by:

(i) 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:

(a) For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period;

(b) For a missing data period greater than 24 hours, substitute the greater of:

- The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
- The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) If the 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:

(a) 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.

(b) For the missing data period of more than 8 hours, substitute the greater of:

- The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
- The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

(iii) 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.

H. If requested by the Department, the owner/operator shall coordinate the quarterly cylinder gas audits with the Department to afford the Department the opportunity to observe these audits. The relative accuracy test audits shall be coordinated with the Department.

The 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)

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan for EP-141

I. Background

A. Emissions Unit:

Description:	WSEC Boiler 4 and Fugitive Emissions
Identification:	EU-141
Facility:	MidAmerican Energy Co. – Walter Scott, Jr. Energy Center

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

Regulation No.:	Construction Permit 03-A-425-P4
Particulate Emission Limits:	BACT Limit: 0.0025 lb/MMBtu for PM10 BACT Limit: 0.0027 lb/MMBtu for PM MACT Limit: 0.018 lb/MMBtu for Federal PM NSPS Limit: 13 ng/J Heat Input for Federal PM Other Limit: 191.9 lb/hr for PM10
Opacity Emission Limit:	5%; 20%
Current Monitoring Requirements:	Alarm of the Bag Leak Detection System Continuous Opacity Monitoring

C. Control Technology: Baghouse

II. Monitoring Approach

A. Indicator
An alarm system will be used as an indicator.

B. Measurement Approach
The alarm system will sound automatically when an increase in related particulate matter emissions over a preset level is detected.

C. Indicator Range
The alarm system shall sound no more than 5% of the operating time during a 6-month period.

D. Performance Criteria

Data representativeness:	The alarm system will sound when the particulate matter emissions increase over the predetermined parameter.
Verification of operational status:	The bag leak record will be kept for five years.
QA/QC practices and criteria:	At least one detector must be located in compartment of the baghouse; The bag leak detection system must be installed, operated, calibrated and maintained in a manner consistent with the guidance provided in "Fabric Filter Bag Leak Detection Guidance", EPA-454/R-98-015, September 1997; The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less;

	The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings; The bag leak detection system must be equipped with a device to continuously record the output signal from the sensors; The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel; The system's instrumentation and alarm may be share among detectors; The system's alarm shall sound no more than 5% of the operating time during a 6-month period.
Monitoring frequency and data Collection procedure:	The bag leak detection system shall operate continuously. Records of the readings shall be maintained for five years.

Emission Point ID Number: EP-142

Associated Equipment

Associated Emission Unit ID Numbers: EU-142
Emissions Control Equipment ID Number: CE-142
Emissions Control Equipment Description: Low NO_x Burners
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-142
Emission Unit Description: Unit #4 Auxiliary Boiler - Natural Gas
Raw Material/Fuel: Natural Gas
Rated Capacity: 343.3 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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	None	NA	Iowa DNR Construction Permit 03-A-426-P2	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.0076 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT
2.61 lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.0076 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT

Sulfur Dioxide (SO_2)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
6×10^{-4} lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT
0.21 lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	NAAQS
500 ppm	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2 567 IAC 23.3(3) "e"	NA

Nitrogen Oxides (NO_x)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.14 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT
21.1 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-426-P2	BACT
48.06 lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2 40 CFR 60 Subpart Db 567 IAC 23.1(2) "ccc"	NAAQS
0.20 lb/MMBtu [1]	24-hr Average (initial) 3-hr Average (subsequent)	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2 40 CFR 60 Subpart Db 567 IAC 23.1(2) "ccc"	None

[1]0.20 lb/MMBtu was derived from natural gas and distillate fuel. See Construction Permit 03-A-426-P2 Section 10b (page 5) or 40 CFR §60.44b (a) for nitrogen dioxides (NO_x) for detailed calculations.

Volatile Organic Compounds (VOC)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.0055 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT

Carbon Monoxide (CO)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.084 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT
28.84 lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	NAAQS
400 ppmv @3% O_2	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	NA

Lead (Pb)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5.0×10^{-7} lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	BACT
4.0×10^{-4} lb/hr	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-426-P2	NAAQS

Operational Limits & Requirements

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

Operating Limits

A. WSEC Auxiliary Boiler (EP-142) shall be limited to firing on natural gas only.
B. This emission unit shall not combust more than 300 million cubic feet of natural gas per twelve (12) month rolling period.
C. Per 40 CFR §60.46b(h)(2), the owner or operator shall conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the nitrogen oxides emission standards under 40 CFR §60.44b over a minimum of three (3) consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E, or other approved reference methods.
D. The owner or operator shall submit the written reports required under NSPS Subparts A and Db to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.
E. Per 40 CFR §60.49b(p), the owner or operator shall maintain records of the following information for each steam generating unit operating day:

   E1. Calendar date;
   E2. The number of hours of operation, and
   E3. A record of the hourly steam load.

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.

A. For the first twelve (12) months of operation, determine the total amount of fuel used (in cubic feet/month) by this emission unit for each month of operation.
B. After the first twelve (12) months of operation, determine the cumulative amount of fuel used (in cubic feet/year) by this emission unit on a rolling-12-month basis for each month of operation.
C. A log showing the sulfur content of the natural gas used.
D. Per 40 CFR §60.49b(q), the owner or operator shall submit to the Administrator a report containing:

   D1. The annual capacity factor over the previous twelve (12) months and
   D2. The following information per 40 CFR §60.49b(q)(3)

i. The results of any nitrogen oxides emission tests required during the reporting period;
ii. The hours of operation during the reporting period, and
iii. The hours of operation since the last nitrogen oxides emission test.

E. Per 40 CFR §60.49b(v), the owner or operator may submit electronic quarterly reports for NO_x in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of 40 CFR §49b. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

F. Monitoring for NESHAP Subpart DDDDD at the facility shall be done per the subpart.

G. Recordkeeping for NESHAP Subpart DDDDD at the facility shall be done per the subpart. Records shall be kept on site and available for inspection for a period of five (5) years and shall include records of fuel use, capacity factor, semi-annual compliance reports, annual performance test reports and all required notifications.

Authority for Requirement: Iowa DNR Construction Permit 03-A-426-P2

NSPS and NESHAP Applicability

This emission unit is subject to NSPS Subpart A – General Provisions and Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

Authority for Requirement: 40 CFR 60 Subpart Db

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

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 290
Stack Opening, (inches, dia.): 69
Exhaust Flow Rate (scfm): 72,300
Exhaust Temperature (°F): 310
Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-426-P2

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.

Stack Testing:

Pollutant – Nitrogen Oxides (NO_x)
The facility shall conduct annual /400 operating hour NOx stack testing on EP-142.
Test Method – 40 CFR 60, Appendix A, Method 7E
Authority for Requirement – Iowa DNR Construction Permit 03-A-426-P2
40 CFR 60 Subpart Db

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-143

Associated Equipment

Associated Emission Unit ID Numbers: EU-143
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-143
Emission Unit Description: Unit #4 Emergency Generator
Raw Material/Fuel: Diesel Fuel
Rated Capacity: 119.3 gal/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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
20%	6-min Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.14 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.14 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT

Sulfur Dioxide (SO_2)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.052 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT
0.21 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-428-P1	BACT
2.5 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1 567 IAC 23.3(3) "b"	NA

Nitrogen Oxides (NO_x)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
1.71 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT
6.99 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-428-P1	BACT

Volatile Organic Compounds (VOC)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.09 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT

Carbon Monoxide (CO)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.85 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-428-P1	BACT
3.47 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-428-P1	BACT

Operational Limits & Requirements

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

Operating Limits

A. This emission unit shall fire on diesel fuel only.
B. The sulfur (S) content of the fuel used shall not exceed 0.05% (by weight).
C. This emission unit shall not combust more than 59,650 gallons of diesel fuel per twelve (12) month rolling period.

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.

A. A fuel certification shall be kept for each fuel delivery received for this unit. This certification shall show the type of fuel delivered along with the sulfur content of the fuel (in weight %).
B. After the first twelve (12) months of operation, determine the cumulative amount of fuel used (in gallons/year) by this emission unit on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 03-A-428-P1

NSPS and NESHAP Applicability
This emission unit is subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ].

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 21.8
Stack Opening, (inches, dia.): 18
Exhaust Flow Rate (scfm): 5,800
Exhaust Temperature (°F): 855
Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-428-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.

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-144

Associated Equipment

Associated Emission Unit ID Numbers: EU-144
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-144
Emission Unit Description: Unit #4 Diesel Fire Pump
Raw Material/Fuel: Diesel Fuel
Rated Capacity: 16.5 gal/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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
20%	6-Minute Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.31 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.31 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT

Sulfur Dioxide (SO_2)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.052 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT
0.03 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-429-P1	BACT
2.5 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1 567 IAC 23.3(3) "b"	NA

Nitrogen Oxides (NO_x)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
4.41 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT
2.49 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-429-P1	BACT

Volatile Organic Compounds (VOC)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.35 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT

Carbon Monoxide (CO)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.95 lb/MMBtu	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT
0.54 ton/yr	12-Month Rolling Total	Recordkeeping	Iowa DNR Construction Permit 03-A-429-P1	BACT

Operational Limits & Requirements

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

Operating Limits

A. This emission unit shall fire on diesel fuel only.
B. The sulfur (S) content of the fuel used shall not exceed 0.05% (by weight).
C. This emission unit shall not combust more than 8,250 gallons of diesel fuel per twelve (12) month rolling period.

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.

A. A fuel certification shall be kept for each fuel delivery received for this unit. This certification shall show the type of fuel delivered along with the sulfur content of the fuel (in weight %).
B. After the first twelve (12) months of operation, determine the cumulative amount of fuel used (in gallons/year) by this emission unit on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 03-A-429-P1

NSPS and NESHAP Applicability
This emission unit is subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ].

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 13.5
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 800
Exhaust Temperature (°F): 850
Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 03-A-429-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.

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-145

Associated Equipment

Associated Emission Unit ID Numbers: EU-145
Emissions Control Equipment ID Number: CE-145
Emissions Control Equipment Description: Drift Eliminator
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-145
Emission Unit Description: Unit #4 Cooling Tower
Raw Material/Fuel: Cooling Water
Rated Capacity: 394,500 gal/min

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): No Visible Emissions [1]
Authority for Requirement: Iowa DNR Construction Permit 03-A-427-P1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.0005% [1, 2]; 1.28 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 03-A-427-P1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.0005% [1, 2]
Authority for Requirement: Iowa DNR Construction Permit 03-A-427-P1

[1] BACT limits.
[2] This is the required control efficiency of the drift eliminator (gallons of drift per gallon of cooling water flow).

Operational Limits & Requirements

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

Operating Limits

A. The total dissolved solids (TDS) of the water circulated through the tower shall not exceed 6,480 mg/L.
B. Chromium based water treatment chemicals shall not be used in this emission unit.

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.

A. An analysis of the TDS of the water circulated through the tower shall be conducted for each quarter this emission unit is in use.

Authority for Requirement: Iowa DNR Construction Permit 03-A-427-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 63.1
Stack Opening, (inches, dia.): 393.6 per cell (22 cells in total)
Exhaust Flow Rate (scfm): 1,302,900 per cell (22 cells in total)
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-427-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.

Monitoring Requirements

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

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

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

The data pertaining to the plan 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-160

Associated Equipment

Associated Emission Unit ID Numbers: EU-160
Emissions Control Equipment ID Number: CE-160
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-160
Emission Unit Description: Unit #4 Coal Silos (series of six)
Raw Material/Fuel: Coal
Rated Capacity: 1,600 ton/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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5%	1-Hour Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT
20%	6-Minute Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1 40 CFR 60 Subpart Y 567 IAC	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT
2.14 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-429-P1	BACT

Operational Limits & Requirements

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

Operating Limits

A. The facility is required to schedule a PM_{10} compliance test within thirty (30) days if it exceeds the one (1) hour, 5% BACT opacity limit.

Authority for Requirement: Iowa DNR Construction Permit 03-A-440-P2

NSPS and NESHAP Applicability

This emission unit is subject to NSPS Subpart A – General Provisions and Subpart Y – Standards of Performance of Coal Preparation Plants.

Authority for Requirement: 40 CFR 60 Subpart Y

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 246
Stack Opening, (inches, dia.): 54
Exhaust Flow Rate (scfm): 49,900
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 03-A-440-P2

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** ☒

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 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-161

Associated Equipment

Associated Emission Unit ID Numbers: EU-161
Emissions Control Equipment ID Number: CE-161
Emissions Control Equipment Description: Bin Vent Filter
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-161
Emission Unit Description: Unit #4 Lime Storage Day Bin
Raw Material/Fuel: Lime
Rated Capacity: 54.0 tons

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 07-A-385-P 567 IAC 23.3(2) "d"	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-385-P	BACT
0.03 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-385-P	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-385-P	BACT

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 85
Stack Opening, (inches, dia.): 3.25
Exhaust Flow Rate (scfm): 300
Exhaust Temperature (°F): 70
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 07-A-385-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.

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-162A &EP-162B (Unit #4 Lime Exhausters)

Associated Equipment

Associated Emission Unit ID Numbers: EU-162A and EU-162B
Emissions Control Equipment ID Number: CE-162
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Con. Permit
EP-162A	EU-162A	Unit #4 Lime Exhauster #1	Lime	30.0 ton/hr	03-A-435-P1
EP-162B	EU-162B	Unit #4 Lime Exhauster #2	Lime	30.0 ton/hr	07-A-386-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.

Table 1. BACT Limits:

EP	EU	Opacity	PM	PM10	Authority of Requirement
EP-162A	EU-162A	No Visible Emissions	0.01 gr/dscf	0.01 gr/dscf	Iowa DNR Con. Permit 03-A-435-P1
EP-162B	EU-162B	No Visible Emissions	0.005 gr/dscf	0.005 gr/dscf	Iowa DNR Con. Permit 07-A-386-P

Table 2. Other Limits:

EP	EU	Opacity	PM10	Authority of Requirement
EP-162A	EU-162A	No Visible Emissions	0.03 lb/hr	Iowa DNR Con. Permit 03-A-435-P1 567 IAC 23.3(2) "d"
EP-162B	EU-162B	No Visible Emissions	0.03 lb/hr	Iowa DNR Con. Permit 07-A-386-P 567 IAC 23.3(2) "d"

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

	EP-162A	**EP-162B**
Stack Height, (ft, from the ground)	13	13
Stack Opening (diameter, inches)	4	4
Exhaust Flow Rate (scfm)	400	400
Exhaust Temperature (°F)	150	150
Discharge Style	Downward	Downward
Authority for Requirement	Iowa DNR Con. Permit 03-A-435-P1	Iowa DNR Con. Permit 07-A-386-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.

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-163

Associated Equipment

Associated Emission Unit ID Numbers: EU-163
Emissions Control Equipment ID Number: CE-163
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-163
Emission Unit Description: Unit #4 Lime Silo
Raw Material/Fuel: Lime
Rated Capacity: 1,875.0 ton capacity; 30 ton/hr fill rate

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 03-A-434-P2 567 IAC 23.3(2) "d"	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-434-P2	BACT
0.03 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-434-P2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-434-P2	BACT

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 104
Stack Opening, (inches, dia.): 4
Exhaust Flow Rate (scfm): 300
Exhaust Temperature (°F): 70
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 03-A-434-P2

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)

Emission Point ID Number: EP-164

Associated Equipment

Associated Emission Unit ID Numbers: EU-164
Emissions Control Equipment ID Number: CE-164
Emissions Control Equipment Description: Water Bath
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-164
Emission Unit Description: Unit #4 Urea Dissolver Tank
Raw Material/Fuel: Urea
Rated Capacity: 69.0 tons; 15,000 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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 03-A-442-P2 567 IAC 23.3(2) "d"	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-442-P2	BACT
0.04 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-442-P2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-442-P2	BACT

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 29
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (scfm): 500
Exhaust Temperature (°F): 70
Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-442-P2

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)

Emission Point ID Number: EP-165A&EP-165B (Unit #4 Activated Carbon Silos)

Associated Equipment

Associated Emission Unit ID Numbers: EU-165A and EU-165B
Emissions Control Equipment ID Number: CE-165A and CE-165B
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit Descriptions, Raw Material/Fuel and Rated Capacity are listed in the following table:

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-165A	EU-165A	Unit #4 Activated Carbon Silo	Activated Carbon	80.0 tons
EP-165B	EU-165B	Unit #4 Activated Carbon Silo	Activated Carbon	80.0 tons

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 07-A-387-P; 07-A-388-P 567 IAC 23.3(2) "d"	BACT

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-387-P; 07-A-388-P	BACT
0.03 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-387-P; 07-A-388-P	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-387-P; 07-A-388-P	BACT

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 62
Stack Opening, (inches): 15×15
Exhaust Flow Rate (scfm): 300
Exhaust Temperature (°F): 70
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 07-A-387-P; 07-A-388-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.

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-167

Associated Equipment

Associated Emission Unit ID Numbers: EU-167
Emissions Control Equipment ID Number: CE-167
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-167
Emission Unit Description: Unit #4 Flyash/FGD Waste Silo
Raw Material/Fuel: Flyash/FGD Waste
Rated Capacity: 2,840 tons capacity; 65.0 ton/hr fill rate

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 03-A-433-P3	BACT
40%	6-Minutes Average	Stack Testing	Iowa DNR Construction Permit 03-A-433-P3 567 IAC 23.3(2) "a"	None

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-433-P3	BACT
0.13 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-433-P3	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 03-A-433-P3	BACT

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 126
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): 2,600
Exhaust Temperature (°F): 160
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 03-A-433-P3

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** ☒

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 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: Unit #4 Flyash/FGD Waste and Recycle

Associated Equipment

Table -1

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-168	EU-168	Unit #4 Flyash/FGD Waste Exhauster#1	Flyash/FGD Waste	65.00 ton/hr
EP-169	EU-169	Unit #4 Flyash/FGD Waste Exhauster#2	Flyash/FGD Waste	65.00 ton/hr
EP-170	EU-170	Unit #4 Flyash/FGD Waste Exhauster#3	Flyash/FGD Waste	65.00 ton/hr
EP-171	EU-171	Unit #4 Flyash/FGD Recycle Exhauster#1	Flyash/FGD Waste	65.0 ton/hr
EP-172	EU-172	Unit #4 Flyash/FGD Recycle Exhauster#2	Flyash/FGD Waste	65.0 ton/hr
EP-173	EU-173	Unit #4 Flyash/FGD Recycle Exhauster #3	Flyash/FGD Waste	65.0 ton/hr

Table -2

EP	EU	Emission Unit Description	CE& Description	CEM	IDNR Construction Permit
EP-168	EU-168	Unit #4 Flyash/FGD Waste Exhauster#1	CE-168/Baghouse	None	03-A-430-P2
EP-169	EU-169	Unit #4 Flyash/FGD Waste Exhauster#2	CE-169/Baghouse	None	03-A-431-P2
EP-170	EU-170	Unit #4 Flyash/FGD Waste Exhauster#3	CE-168 & CE-169/Baghouse	None	03-A-432-P2
EP-171	EU-171	Unit #4 Flyash/FGD Recycle Exhauster#1	CE-171/Baghouse	None	07-A-389-P
EP-172	EU-172	Unit #4 Flyash/FGD Recycle Exhauster#2	CE-172/Baghouse	None	07-A-390-P
EP-173	EU-173	Unit #4 Flyash/FGD Recycle Exhauster #3	CE-171 or CE-172 Baghouse	None	07-A-391-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.

EP	Opacity[1,2]	Opacity[3,4]	PM[1]	PM_{10}[1]	PM_{10}[5]	Authority for Requirement
EP-168	5%	40%	0.005 gr/dscf	0.005 gr/dscf	0.15 lb/hr	Iowa DNR Construction Permit 03-A-430-P2
EP-169	5%	40%	0.005 gr/dscf	0.005 gr/dscf	0.15 lb/hr	Iowa DNR Construction Permit 03-A-431-P2
EP-170	5%	40%	0.005 gr/dscf	0.005 gr/dscf	0.15 lb/hr	Iowa DNR Construction Permit 03-A-432-P2
EP-171	5%	40%	0.005 gr/dscf	0.005 gr/dscf	0.20 lb/hr	Iowa DNR Construction Permit 07-A-389-P
EP-172	5%	40%	0.005 gr/dscf	0.005 gr/dscf	0.20 lb/hr	Iowa DNR Construction Permit 07-A-390-P
EP-173	5%	40%	0.005 gr/dscf	0.005 gr/dscf	0.20 lb/hr	Iowa DNR Construction Permit 07-A-391-P

[1] BACT limits.
[2] Standard is 1-hr limit.
[3] Standard is 6-minute average.
[4] 567 IAC 23.3(2) "a"
[5] Limits is used to demonstrate no exceedance of NAAQS.

Operational Limits & Requirements

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

Operating Limits

A. The facility is required to schedule a PM10 compliance test within thirty (30) days if it exceeds the one (1) hour, 5% BACT opacity limit.

Authority for Requirement: Iowa DNR Construction Permits *see Table 2*

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

	Stack Height (ft, from the ground)	Stack Opening (dia. inch)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement IDNR Construction Permit
EP-168	13	14	3,100	160	Horizontal	03-A-430-P2
EP-169	13	14	3,100	160	Horizontal	03-A-431-P2
EP-170	13	14	3,100	160	Horizontal	03-A-432-P2
EP-171	13	14.4	4,000	160	Horizontal	07-A-389-P
EP-172	13	14.4	4,000	160	Horizontal	07-A-390-P
EP-173	13	14.4	4,000	160	Horizontal	07-A-391-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.

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 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-174

Associated Equipment

Associated Emission Unit ID Numbers: EU-174
Emissions Control Equipment ID Number: CE-174
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-174
Emission Unit Description: Unit #4 Flyash/FGD Recycle Silo
Raw Material/Fuel: Flyash/FGD Material
Rated Capacity: 130 ton/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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 07-A-392-P2	BACT
40%	6-Minutes Average	Stack Testing	Iowa DNR Construction Permit 07-A-392-P2 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-392-P2	BACT
0.03 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-392-P2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-392-P2	BACT

Operational Limits & Requirements

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

Operating Limits

A. The combined silo fill rate of the operating recycle ash and backup ash transport systems shall not exceed 130 tons/hr.

Recordkeeping and Reporting Requirements

B. The date, hours of operating for each half of the 130 ton/hr recycle ash transport system, and the hours of operation for each half of the 60 ton/hr backup transport system.

Authority for Requirement: Iowa DNR Construction Permit 07-A-392-P2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 103.8
Stack Opening, (inches, dia.): 5
Exhaust Flow Rate (scfm): 550
Exhaust Temperature (ºF): 160
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 07-A-392-P2

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** ☒

Emission Point ID Number: EP-180, EP-181, EP-182 (Unit #4 Water Treatment)

Associated Equipment

Table -1

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-180	EU-180	Unit #4 Water Treatment Area Lime Storage Silo A	Lime	80.00 tons
EP-181	EU-181	Unit #4 Water Treatment Area Lime Storage Silo B	Lime	80.00 tons
EP-182	EU-182	Unit #4 Water Treatment - Soda Ash Silo	Soda Ash	225.0 tons

Table -2

EP	EU	Emission Unit Description	CE& Description	CEM	IDNR Construction Permit
EP-180	EU-180	Unit #4 Water Treatment Area Lime Storage Silo A	CE-180/Baghouse	None	07-A-393-P
EP-181	EU-181	Unit #4 Water Treatment Area Lime Storage Silo B	CE-181/Baghouse	None	07-A-394-P
EP-182	EU-182	Unit #4 Water Treatment - Soda Ash Silo	CE-182/Baghouse	None	07-A-395-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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	See Table 2	BACT
40%	6-Minutes Average	Stack Testing	See Table 2 for permit numbers 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	See Table 2	BACT
0.10 lb/hr	3-Run Average	Stack Testing	See Table 2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	See Table 2	BACT

Operational Limits & Requirements

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

Operational limits are not required at this time.

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

	EP-180	**EP-181**	**EP-182**
Stack Height, (ft, from the ground)	80.8	80.8	80.8
Stack Opening (inches)	48×48	48×48	48×48
Exhaust Flow Rate (scfm)	1,200	1,200	1,200
Exhaust Temperature (°F)	70	70	70
Discharge Style	Downward	Downward	Downward
Authority for Requirement	07-A-393-P	07-A-394-P	07-A-395-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.

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-200

Associated Equipment

Associated Emission Unit ID Numbers: EU-200
Emissions Control Equipment ID Number: CE-200
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-200
Emission Unit Description: Unit #3 Flyash/FGD Waste Silo
Raw Material/Fuel: Flyash/FGD Waste
Rated Capacity: 2,850.0 tons

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	NA	Stack Testing	Iowa DNR Construction Permit 06-A-766-P1	BACT
40%	6-Minutes Average	Stack Testing	Iowa DNR Construction Permit 06-A-766-P1 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 06-A-766-P1	BACT
0.12 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 06-A-766-P1	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	Iowa DNR Construction Permit 06-A-766-P1	BACT

Operational Limits & Requirements

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

Operating Limits

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

Reporting and Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 06-A-766-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 137
Stack Opening, (inches): 8×30
Exhaust Flow Rate (scfm): 2,914
Exhaust Temperature (°F): 150
Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 06-A-766-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.

Monitoring Requirements

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

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

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

The data pertaining to the plan 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-201, EP-202, EP-203 (Unit #3 Flyash/FGD Waste Exhausters)

Associated Equipment

Table -1

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-201	EU-201	Unit #3 Flyash/FGD Waste Exhauster#1	Flyash/FGD Waste	51.0 ton/hr
EP-202	EU-202	Unit #3 Flyash/FGD Waste Exhauster#2	Flyash/FGD Waste	51.0 ton/hr
EP-203	EU-203	Unit #3 Flyash/FGD Waste Exhauster#3	Flyash/FGD Waste	51.0 ton/hr

Table -2

EP	EU	Emission Unit Description	CE& Description	CEM	IDNR Construction Permit
EP-201	EU-201	Unit #3 Flyash/FGD Waste Exhauster#1	CE-201/Baghouse	None	06-A-767-P1
EP-202	EU-202	Unit #3 Flyash/FGD Waste Exhauster#2	CE-201 or CE-202/Baghouse	None	06-A-768-P1
EP-203	EU-203	Unit #3 Flyash/FGD Waste Exhauster#3	CE-202/Baghouse	None	08-A-636-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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5%	1-Hr Average	Stack Testing	See Table 2	BACT
40%	6-Minutes Average	Stack Testing	Construction permits in Table2 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	See Table 2	BACT
0.14 lb/hr	3-Run Average	Stack Testing	See Table 2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	3-Run Average	Stack Testing	See Table 2	BACT

Operational Limits & Requirements

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

Operating Limits

A. The facility is required to schedule a PM and PM10 compliance test within 30 days if it exceeds the one (1) hour, 5% opacity BACT limit.
B. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

Reporting and Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit *see Table 2*

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

	EP-201	**EP-202**	**EP-203**
Stack Height, (ft, from the ground)	30	30	30
Stack Opening (inches)	13.25	13.25	13.25
Exhaust Flow Rate (scfm)	3,296	3,296	3,296
Exhaust Temperature (°F)	255	255	255
Discharge Style	Vertical Unobstructed	Vertical Unobstructed	Vertical Unobstructed
Authority for Requirement	06-A-767-P1	06-A-768-P1	08-A-636-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.

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 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-204, EP-205 (Unit #3 Lime Unloading Exhausters)

Associated Equipment

Table -1

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-204	EU-204	Unit #3 Lime Unloading Exhauster#1	Lime	25.0 ton/hr
EP-205	EU-205	Unit #3 Lime Unloading Exhauster#2	Lime	25.0 ton/hr

Table -2

EP	EU	Emission Unit Description	CE& Description	CEM	IDNR Construction Permit
EP-204	EU-204	Unit #3 Lime Unloading Exhauster#1	CE-204/Baghouse	None	06-A-769-P1
EP-205	EU-205	Unit #3 Lime Unloading Exhauster#2		None	06-A-770-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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5%	1-Hr Average	Stack Testing	See Table 2	BACT
40%	6-Minutes Average	Stack Testing	Construction permits in Table2 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	3-Run Average	Stack Testing	See Table 2	BACT
0.14 lb/hr	3-Run Average	Stack Testing	See Table 2	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	3-Run Average	Stack Testing	See Table 2	BACT

Operational Limits & Requirements

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

Operating Limits

A. The facility is required to schedule a PM and PM10 compliance test within 30 days if it exceeds the one (1) hour, 5% opacity BACT limit.
B. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

Reporting and Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 06-A-769-P1; 06-A-770-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

	EP-204	**EP-205**
Stack Height, (ft, from the ground)	40	40
Stack Opening (inches)	10.25	10.25
Exhaust Flow Rate (scfm)	1,633	1,633
Exhaust Temperature (°F)	180	180
Discharge Style	Vertical Unobstructed	Vertical Unobstructed
Authority for Requirement	06-A-769-P1	06-A-770-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.

Monitoring Requirements

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

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

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

The data pertaining to the plan 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-207

Associated Equipment

Associated Emission Unit ID Numbers: EU-207
Emissions Control Equipment ID Number: CE-207
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-207
Emission Unit Description: Unit #3 Lime Silo
Raw Material/Fuel: Lime
Rated Capacity: 1,875.0 tons

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	1-Hr Average	Stack Testing	Iowa DNR Construction Permit 06-A-772-P1	BACT
40%	6-Minutes Average	Stack Testing	Iowa DNR Construction Permit 06-A-772-P1 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	NA	Stack Testing	Iowa DNR Construction Permit 06-A-772-P1	BACT
0.24 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 06-A-772-P1	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.01 gr/dscf	NA	Stack Testing	Iowa DNR Construction Permit 06-A-772-P1	BACT

Operational Limits & Requirements

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

Operating Limits

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

Reporting and Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 06-A-772-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 143
Stack Opening, (inches): 10×15
Exhaust Flow Rate (scfm): 2,800
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 06-A-772-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.

Monitoring Requirements

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

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

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

The data pertaining to the plan 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-208

Associated Equipment

Associated Emission Unit ID Numbers: EU-208
Emissions Control Equipment ID Number: CE-208
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-208
Emission Unit Description: Unit #3 Recycle Ash Silo
Raw Material/Fuel: Flyash/FGD Waste
Rated Capacity: 550.0 tons

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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
No Visible Emissions	1-Hr Average	Stack Testing	Iowa DNR Construction Permit 06-A-773-P1	BACT
40%	6-Minutes Average	Stack Testing	Iowa DNR Construction Permit 06-A-773-P1 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	NA	Stack Testing	Iowa DNR Construction Permit 06-A-773-P1	BACT
0.06 lb/hr	3-Run Average	Stack Testing	Iowa DNR Construction Permit 06-A-773-P1	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	NA	Stack Testing	Iowa DNR Construction Permit 06-A-773-P1	BACT

Operational Limits & Requirements

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

Operating Limits

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

Reporting and Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 06-A-773-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 114
Stack Opening, (inches): 8×14
Exhaust Flow Rate (scfm): 1,477
Exhaust Temperature (°F): 150
Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 06-A-773-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.

Monitoring Requirements

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

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

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

The data pertaining to the plan 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-209, EP-210, EP-211 (Unit #3 Flyash/FGD Recycle Exhausters)

Associated Equipment

Table -1

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-209	EU-209	Unit #3 Flyash/FGD Recycle Exhauster#1	Flyash/FGD Waste	74.50 ton/hr
EP-210	EU-210	Unit #3 Flyash/FGD Recycle Exhauster#2	Flyash/FGD Waste	74.50 ton/hr
EP-211	EU-211	Unit #3 Flyash/FGD Recycle Exhauster#3	Flyash/FGD Waste	74.50 ton/hr

Table -2

EP	EU	Emission Unit Description	CE& Description	CEM	IDNR Construction Permit
EP-209	EU-209	Unit #3 Flyash/FGD Recycle Exhauster#1	CE-209/Baghouse	None	06-A-774-P1
EP-210	EU-210	Unit #3 Flyash/FGD Recycle Exhauster#2	CE-209 or CE-210/Baghouse	None	06-A-775-P1
EP-211	EU-211	Unit #3 Flyash/FGD Recycle Exhauster#3	CE-210/Baghouse	None	06-A-776-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.

Opacity

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
5%	1-Hr Average	Stack Testing	See Table 2 for permit numbers	BACT
40%	6-Minutes Average	Stack Testing	See Table 2 for permit numbers 567 IAC 23.3(2) "d"	NA

Particulate Matter (PM_{10})

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	NA	Stack Testing	See Table 2 for permit numbers	BACT
0.18 lb/hr	3-Run Average	Stack Testing	See Table 2 for permit numbers	NAAQS

Particulate Matter (PM)

Limit	Averaging Period	Compliance Demonstration Method	Authority for Requirement	Other
0.005 gr/dscf	NA	Stack Testing	See Table 2 for permit numbers	BACT

Operational Limits & Requirements

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

Operating Limits

A. The facility is required to schedule a PM and PM10 compliance test within 30 days if it exceeds the one (1) hour, 5% opacity BACT limit.
B. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

Reporting and Recordkeeping

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit *see Table 2*

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

	EP-209	**EP-210**	**EP-211**
Stack Height, (ft, from the ground)	34	34	34
Stack Opening (inches)	13.25	13.25	13.25
Exhaust Flow Rate (scfm)	4,113	4,113	4,113
Exhaust Temperature (°F)	255	255	255
Discharge Style	Vertical Unobstructed	Vertical Unobstructed	Vertical Unobstructed
Authority for Requirement	06-A-774-P1	06-A-775-P1	06-A-776-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.

Monitoring Requirements

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

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

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

The data pertaining to the plan 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)

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"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *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 present or mail 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. 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 emission standard by more than 10 percent or 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 activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations, training fires and controlled burning of a demolished building. *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 <u>except</u> 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

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

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

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

a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

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

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

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

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

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

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

G24. Permit Reopenings

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

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

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

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

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

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

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

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

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

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

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

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

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

Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

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

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

V. Appendix

Appendix A: CAM Plan for Coal Conveying Units

Compliance Assurance Monitoring Plan for Coal Conveying Units

I. Background

A. Emissions Unit:

Facility:	MidAmerican Energy Co. – Walter Scott, Jr. Energy Center
Identification	Description
EU-006	Rotary Car Dumper
EU-009	Transfer House #1 – Coal Conveying
EU-010	Transfer House #2 – Coal Conveying
EU-011	Transfer House #3 – Coal Conveying
EU-013	Transfer House #4 – Coal Conveying
EU-014	East Coal Silo #3 – Coal Conveying
EU-015	West Coal Silo #3 – Coal Conveying
EU-016	1&2 Crusher – Coal Conveying
EU-017	1&2 Tripper – Coal Conveying

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

EU	Regulation No.	Particulate Emission Limit	Opacity Emission Limit
EU-006	03-A-436-P1	0.005 gr/dscf for PM; 6.43 lb/hr for PM10	5%; 20%
EU-009	78-A-169-S5	1.31 lb/hr; 0.005 gr/dscf for PM10; PM has additional limit of 0.1 gr/dscf	20%
EU-010	03-A-438-P2	1.05 lb/hr; 0.0037 gr/dscf for PM10; 0.0037 gr/dscf for PM	0%; 20%
EU-011	78-A-171-S2	2.35 lb/hr for PM10; 0.1 gr/dscf for PM	No VE; 20%
EU-013	03-A-439-P2	1.14 lb/hr; 0.005 gr/dscf for PM10; 0.005 gr/dscf for PM	5%; 20%
EU-014	78-A-174-S4	1.14 lb/hr for PM10; 0.1 gr/dscf for PM	20%
EU-015	78-A-175-S3	0.98 lb/hr for PM10; 0.1 gr/dscf for PM	20%
EU-016	79-A-254-S2	1.33 lb/hr for PM10; 0.1 gr/dscf for PM	20%
EU-017	79-A-255-S2	2.94 lb/hr for PM10; 0.1 gr/dscf for PM	No VE; 20%
Current Monitoring Requirements:		Daily visible emission monitoring	
Alternative Monitoring requirements:		In lieu of the visible emissions monitoring required below, the permittee may install and operate a bag leak detection system. If this option is chosen, the permittee shall following the monitoring approach listed under section III of this CAM plan.	

C. Control Technology: Baghouses

II. Monitoring Approach

A. Indicator

Visible emissions will be used as an indicator, along with weekly and annual performance inspections.

B. Measurement Approach

Daily:

- Visible emissions will be checked during the material handling operation of the unit.

Weekly:

- Check the cleaning sequence of the baghouses.
- Check hopper functions and performance.

Annually:

- Thoroughly inspect bags for leaks and wear.
- Inspect bag cleaning components.
- Inspect hopper unloading components.
- Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.

C. Indicator Range

An excursion is defined as the presence of visible emissions.
Excursions trigger an inspection and corrective action.

D. Performance Criteria

Data representativeness:	Measurements are being made at the emission point (bag filer exhaust).
Verification of operational status:	Records of visible emissions readings, a log of performance, inspections, and any corrective actions will be maintained for five years.
QA/QC practices and criteria:	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures
Monitoring frequency and data Collection procedure:	A 6-minute Method 22-like observation is performed daily, along with weekly and annual performance inspections. The visible emissions observation, a log of performance inspections, and any corrective actions are documented by the observer.

III. Alternative Monitoring Approach

i. Indicator to be Monitored: Bag leak detection monitor signal.

ii. Rationale for Monitoring Approach: Bag leak detectors that operate on principles such as triboelectric, electrostatic induction, light scattering, or light transmission, produce a signal that is proportional to the particulate loading in the baghouse outlet gas stream. When bag leaks occur, the cleaning peak height or baseline signal level will increase. Alarm levels based on increases in normal cleaning peak heights or the normal baseline signal can be set to detect filter bag leaks.

iii. Monitoring Locations: At the fabric filter outlet.

iv. Analytical Devices Required: Bag leak detector and associated instrumentation.

v. Data Acquisition and Measurement System Operation
- Frequency of measurement: Continuous.
- Reporting units: Amps, volts, or percent of scale.
- Recording process: Recorded automatically on strip chart or data acquisition system.

vi. Data Requirements
- Historical signal data showing baseline level and cleaning peak height during normal operation or signal data concurrent with emission testing.

vii. Specific QA/QC Procedures: Calibrate, maintain, and operate instrumentation using procedures that take into account manufacturer's specifications.

Appendix B: NSPS and NESHAP

A. 40 CFR 60 Subpart A – General Provisions
http://www.tceq.state.tx.us/permitting/air/rules/federal/60/a/ahp.html

B. 40 CFR 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971
http://www.tceq.texas.gov/permitting/air/rules/federal/60/d/dhp.html

C. 40 CFR 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978
http://www.tceq.texas.gov/permitting/air/rules/federal/60/da/dahp.html

D. 40 CFR 60 Subpart Y – Standards of Performance for Coal Preparation Plants and Processing Plants
http://www.tceq.texas.gov/permitting/air/rules/federal/60/y/yhp.html

E. 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
http://www.epa.gov/ttn/atw/nsps/sinsps/fr28jn11.pdf

F. 40 CFR 63 Subpart A – General Provisions
http://www.tceq.texas.gov/permitting/air/rules/federal/63/a/ahp.html

G. 40 CFR 63 Subpart B – Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j).
http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=87c9ead88b52be4bd1e43f40ffe98857&rgn=div6&view=text&node=40:9.0.1.1.1.2&idno=40

H. 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
http://www.gpo.gov/fdsys/pkg/FR-2013-01-30/pdf/2013-01288.pdf

I. 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT)
http://www.epa.gov/ttn/atw/boiler/fr23de11major.pdf

J. 40 CFR 63 Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-fired Electric Utility Steam Generating Units
http://www.epa.gov/mats/pdfs/20111216MATSfinal.pdf

Appendix C: Acid Rain

AIR QUALITY BUREAU
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324

Phase II Acid Rain Permit

Issued to:	Walter Scott, Jr. Energy Center
Operated by:	MidAmerican Energy Company
ORIS code:	1082
Effective:	March 13, 2013 through March 12, 2018

For the Director of the Department of Natural Resources

_____

Lori Hanson, Supervisor of Operating Permits Section Date

Acid Rain Permit comprises the following:

1) Statement of Basis.

2) SO_2 allowances allocated under this permit and NO_x requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source, as corrected by the Iowa Department of Natural Resources (IDNR), Air Quality Bureau, Operating Permit Section. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with Iowa Code paragraph 455B.133[8"a"], and Titles IV and V of the Clean Air Act, the Iowa Department of Natural Resources (IDNR), Air Quality Bureau, Operating Permit Section issues this permit pursuant to 567 Iowa Administrative Code (IAC) 22.135(455B) to 22.145(455B) and 567 IAC 22.100(455B) to 22.116(455B). The compliance options are approved as proposed in the attached application.

2) SO_2 Allowance Allocations and NO_x Requirements for each affected unit

		2013	2014	2015	2016	2017	2018
Unit 1	SO_2 allowances, under Table 2 of 40 CFR part 73.	653*	653*	653*	653*	653*	653*
	NO_x limit	Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a standard emissions limitation compliance plan for Unit 7. The NO_x compliance plan is effective March 13 , 2013 through March 12, 2018. Under the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and the requirements covering excess emissions.					

SO_2 Allowance Allocations and NO_x Requirements for each affected unit continued

		2013	2014	2015	2016	2017	2018
Unit 2	SO_2 allowances, under Table 2 of 40 CFR part 73.	928*	928*	928*	928*	928*	928*
	NO_x limit	Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a standard emissions limitation compliance plan for Unit 2. The NO_x compliance plan is effective from March 13 , 2013 through March 12, 2018. Under the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(1), which is 0.40 lbs/mmBtu for tangentially fired units. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and the requirements covering excess emissions.					

		2013	2014	2015	2016	2017	2018
Unit 3	SO_2 allowances, under Table 2 of 40 CFR part 73.	15,985*	15,985*	15,985*	15,985*	15,985*	15,985*
	NO_x limit	Pursuant to 40 CFR part 76, The Iowa Department of Natural Resources approves a standard emissions limitation compliance plan for Unit 3. The NO_x compliance plan is effective from March 13 , 2013 through March 12, 2018. Under the NO_x compliance plan, this unit's annual average NO_x emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.7(a)(2), which is 0.46 lbs/mmBtu for dry bottom wall-fired units. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_x compliance plan and the requirements covering excess emissions.					

SO_2 Allowance Allocations and NO_x Requirements for each affected unit continued

		2013	2014	2015	2016	2017	2018
Unit 4	SO_2 allowances, under Table 2 of 40 CFR part 73.	0*	0*	0*	0*	0*	0*

* The number of allowances allocated to Phase II affected units by U.S. EPA in 40 CFR part 73 Table 2 (Revised May 12, 2005). In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

3) Comments, Notes and Justifications:

Second renewal of the Phase II SO_2 and NO_x permit.

Note: Unit 4 is not subject to Phase II NO_x because it is a new coal fired boiler.

4) Permit Application: Attached.

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ new ☐ revised ☒ for Acid Rain permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

Walter Scott, Jr. Energy Center Facility (Source) Name	IA State	1082 Plant Code

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
1	Yes
2	Yes
3	Yes
4	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes

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EPA Form 7610-16 (rev. 07-08)

kkl

97-TV-001R2-M001, 12/08/2015

STEP 3

Read the standard requirements.

Permit Requirements

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

Recordkeeping and Reporting Requirements, Cont'd.

STEP 3, Cont'd.

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Walter Scott, Jr. Energy Center
Facility (Source) Name (from STEP 1)

Effect on Other Authorities, Cont'd.

STEP 3, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a source can hold; *provided,* that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

STEP 4
Read the certification statement, sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name David W. Ulozas	
Signature	Date 8/11/2009

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 11/30/2012

Phase II NO_x Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is: [ ] New [X] Revised

STEP 1
Indicate plant name, State, and ORIS code from NADB, if applicable

Plant Name: Walter Scott Jr. Energy Center	State: IA	ORIS Code: 1082

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

	ID# 1 Type: DBW	ID# 2 Type: T	ID# 3 Type: DBW	ID# Type	ID# Type	ID# Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)						
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)						
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)						
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	X		X			
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)		X				
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)						
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)						
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)						
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)						
(j) NO_x Averaging Plan (include NO_x Averaging form)						
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)						
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging form)						

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Plant Name (from Step 1): Walter Scott Jr. Energy Center

STEP 2, cont'd.

	ID# 1 Type: DBW	ID# 2 Type: T	ID# 3 Type: DBW	ID# Type	ID# Type	ID# Type
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17(a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	☐	☐	☐	☐	☐	☐
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	☐	☐	☐	☐	☐	☐
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	☐	☐	☐	☐	☐	☐
(p) Repowering extension plan approved or under review	☐	☐	☐	☐	☐	☐

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).
Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.
Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: Matthew L. Finnegan	
Signature Matthew L. Finnegan	Date 3/10/11

Appendix D: CAIR Permit

AIR QUALITY BUREAU
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324

Clean Air Interstate Rule (CAIR) Permit

Issued to: Walter Scott, Jr. Energy Center
Operated by: MidAmerican Energy Company
ORIS code: 1082
Effective: March 13, 2013 through March 12, 2018

For the Director of the Department of Natural Resources

_____

Lori Hanson, Supervisor of Operating Permits Section Date

Clean Air Interstate Rule (CAIR) Permit comprises the following:

1) Statement of Basis.

2) Nitrogen Oxide (NO_x) annual and ozone season allowances allocated under this permit for each affected unit. Under the CAIR program the SO_2 allowances will have different values depending on the date of reconciliation.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source, as corrected by the Iowa Department of Natural Resources (IDNR), Air Quality Bureau, Operating Permit Section. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

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1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with Iowa Code Chapter 455B, and Title I of the Clean Air Act, the Iowa Department of Natural Resources (IDNR), Air Quality Bureau, Operating Permit Section issues this permit pursuant to 567 Iowa Administrative Code (IAC) 34.203(455B) NO_x Annual, 34.223(455B) NO_x Ozone Season, SO_2 Annual 34.210(455B) and 567 IAC 22.100(455B) to 22.116(455B). The compliance options are approved as proposed in the attached application.

2) NO_x Annual and NO_x Ozone Season allowance allocations and SO_2 requirements for each affected unit.

		2013	2014	2015	2016	2017	2018
Unit 1	NO_x Annual Allowances under Table 1A of 567 IAC 34.205(2)	307*	307*	261*	261*	261*	261*
	NO_x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	133*	133*	114*	114*	114*	114*
	SO_2 allowances requirements are effective January 1, 2010	The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO_2 Annual allowance allocations identified in this permit (See 40 CFR 96.223(b)). Under the CAIR program the SO_2 allowances will have different values depending on the date of reconciliation (40 CFR 96.202).					

*The number of allowances actually held by an affected source in a unit account may differ from the number the IDNR has instructed EPA to allocate. The aforementioned condition does not necessitate a revision to the unit NO_x Annual or NO_x Ozone Season allowance allocations identified in this permit (See 40 CFR 96.123(b) for NO_x Annual and 40 CFR 96.323(b) NO_x Ozone Season).

2) NOx Annual and NOx Ozone Season allowance allocations and SO2 requirements for each affected unit. (continued)

		2013	2014	2015	2016	2017	2018
Unit 2	NO_x Annual Allowances under Table 1A of 567 IAC 34.205(2)	461*	461*	392*	392*	392*	392*
	NO_x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	191*	191*	163*	163*	163*	163*
	SO_2 allowances requirements are effective January 1, 2010	The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO_2 Annual allowance allocations identified in this permit (See 40 CFR 96.223(b)). Under the CAIR program the SO_2 allowances will have different values depending on the date of reconciliation (40 CFR 96.202).					

2) NOx Annual and NOx Ozone Season allowance allocations and SO2 requirements for each affected unit. (continued)

		2013	2014	2015	2016	2017	2018
Unit 3	NO_x Annual Allowances under Table 1A of 567 IAC 34.205(2)	4138*	4138*	3521*	3521*	3521*	3521*
	NO_x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	1822*	1822*	1550*	1550*	1550*	1550*
	SO_2 allowances requirements are effective January 1, 2010	The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO_2 Annual allowance allocations identified in this permit (See 40 CFR 96.223(b)). Under the CAIR program the SO_2 allowances will have different values depending on the date of reconciliation (40 CFR 96.202).					

2) NOx Annual and NOx Ozone Season allowance allocations and SO2 requirements for each affected unit. (continued)

		2013	2014	2015	2016	2017	2018
Unit 4	NO_x Annual Allowances under Table 1A of 567 IAC 34.205(2)	713*	713*	356*	356*	356*	356*
	NO_x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	311*	311*	155*	155*	155*	155*
	SO_2 allowances requirements are effective January 1, 2010	The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit SO_2 Annual allowance allocations identified in this permit (See 40 CFR 96.223(b)). Under the CAIR program the SO_2 allowances will have different values depending on the date of reconciliation (40 CFR 96.202).					

3) Comments, Notes and Justifications: Boilers 1, 2, 3 and 4 are affected units under CAIR. These units are required to acquire allowances to cover their NO_x Annual, NO_x Ozone Season and SO_2 emissions.

4) Permit Application: Attached.

CAIR Permit Application

(for sources covered under a CAIR SIP)

For more information, refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321, and 96.322

This submission is: ■ New □ Revised

STEP 1
Identify the source by plant name, State, and ORIS or facility code

MIDAMERICAN ENERGY COMPANY

Plant Name **Council Bluffs Energy Center** State **IA** ORIS/Facility Code **1082**

STEP 2
Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO_X Annual	SO_2	NO_X Ozone Season
1	X	X	X
2	X	X	X
3	X	X	X
4	X	X	X

STEP 3
Read the standard requirements and the certification, enter the name of the CAIR designated representative, and sign and date

Standard Requirements

(a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under §96.122, §96.222, and §96.322 (as applicable) in accordance with the deadlines specified in §96.121, §96.221, and §96.321 (as applicable); and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in subpart II, III, and IIII (as applicable) of 40 CFR part 96, the owners and operators of a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) that is not otherwise required to have a title V operating permit and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for such CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and such CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable).

Plant Name (from Step 1)Council Bluffs Energy Center

STEP 3, continued

(b) Monitoring, reporting, and recordkeeping requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

(2) The emissions measurements recorded and reported in accordance with subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96 shall be used to determine compliance by each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) with the CAIR NO_X emissions limitation, CAIR SO_2 emissions limitation, and CAIR NO_X Ozone Season emissions limitation (as applicable) under paragraph (c) of §96.106, §96.206, and §96.306 (as applicable).

(c) Nitrogen oxides emissions requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall hold, in the source's compliance account, CAIR NO_X allowances available for compliance deductions for the control period under §96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_X units at the source, as determined in accordance with subpart HH of 40 CFR part 96.

(2) A CAIR NO_X unit shall be subject to the requirements under paragraph (c)(1) of §96.106 for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.170(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR NO_X allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.106, for a control period in a calendar year before the year for which the CAIR NO_X allowance was allocated.

(4) CAIR NO_X allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Allowance Tracking System accounts in accordance with subparts FF, GG, and II of 40 CFR part 96.

(5) A CAIR NO_X allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_X Annual Trading Program. No provision of the CAIR NO_X Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR NO_X allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EE, FF, GG, or II of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR NO_X allowance to or from a CAIR NO_X source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR NO_X unit.

Sulfur dioxide emission requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO_2 allowances available for compliance deductions for the control period under §96.254(a) and (b) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO_2 units at the source, as determined in accordance with subpart HHH of 40 CFR part 96.

(2) A CAIR SO_2 unit shall be subject to the requirements under paragraph (c)(1) of §96.206 for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under §96.270(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR SO_2 allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.206, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.

(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 96.

(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR SO_2 allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR SO_2 unit.

Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_X Ozone Season allowances available for compliance deductions for the control period under §96.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_X Ozone Season units at the source, as determined in accordance with subpart HHHH of 40 CFR part 96.

(2) A CAIR NO_X Ozone Season unit shall be subject to the requirements under paragraph (c)(1) of §96.306 for the control period starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.370(b)(1), (2), (3) or (7) and for each control period thereafter.

(3) A CAIR NO_X Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.306, for a control period in a calendar year before the year for which the CAIR NO_X Ozone Season allowance was allocated.

(4) CAIR NO_X Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Ozone Season Allowance Tracking System accounts in accordance with subparts FFFF, GGGG, and IIII of 40 CFR part 96.

(5) A CAIR NO_X allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_X Ozone Season Trading Program. No provision of the CAIR NO_X Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.305 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR NO_X allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR NO_X Ozone Season allowance to or from a CAIR NO_X Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

Plant Name (from Step 1)Council Bluffs Energy Center

STEP 3, continued

(d) Excess emissions requirements.

If a CAIR NO_X source emits nitrogen oxides during any control period in excess of the CAIR NO_X emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_X unit at the source shall surrender the CAIR NO_X allowances required for deduction under §96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

If a CAIR SO_2 source emits sulfur dioxide during any control period in excess of the CAIR SO_2 emissions limitation, then:

(1) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 allowances required for deduction under §96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

If a CAIR NO_X Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO_X Ozone Season emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_X Ozone Season unit at the source shall surrender the CAIR NO_X Ozone Season allowances required for deduction under §96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

(e) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under §96.113, §96.213, and §96.313 (as applicable) for the CAIR designated representative for the source and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §96.113, §96.213, and §96.313 (as applicable) changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96, provided that to the extent that subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable).

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) at the source shall submit the reports required under the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable) including those under subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

(f) Liability.

(1) Each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and each NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) shall meet the requirements of the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable).

(2) Any provision of the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable) that applies to a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) or the CAIR designated representative of a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) shall also apply to the owners and operators of such source and of the CAIR NO_X units, CAIR SO_2 units, and CAIR NO_X Ozone Season units (as applicable) at the source.

(3) Any provision of the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable) that applies to a CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) shall also apply to the owners and operators of such unit.

Plant Name (from Step 1)Council Bluffs Energy Center

STEP 3, continued

(g) Effect on Other Authorities.
No provision of the CAIR NO_X Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_X Ozone Season Trading Program (as applicable), a CAIR permit application, a CAIR permit, or an exemption under § 96.105, §96.205, and §96.305 (as applicable) shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) or CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Certification

I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name: Todd Raba	
Signature	Date 6/28/07