

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

Name of Permitted Facility:

**MidAmerican Energy Company – George Neal North
Facility Location: 1151 260th Street, Sergeant Bluff, Iowa 51054
Air Quality Operating Permit Number: 97-TV-002R2-M001
Expiration Date: April 11, 2018
Permit Renewal Application Deadline: October 11, 2017**

**EIQ Number: 92-2761
Facility File Number: 97-04-010**

Responsible Official

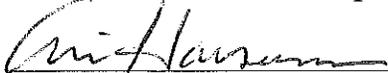
**Name: Mr. William R. Whitney
Title: General Manager – Neal Energy Center
Mailing Address: PO Box 778, Sioux City, Iowa 50112
Phone #: (712) 277-5222**

Permit Contact Person for the Facility

**Name: Ms. Tamara L. Chrisman
Title: EHS Manager
Mailing Address: PO Box 778, Sioux City, Iowa 50112
Phone #: (712) 277-5232**

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

For the Director of the Department of Natural Resources



Lori Hanson, Supervisor of Air Operating Permits Section

3/24/2015

Date

Table of Contents

I. Facility Description and Equipment List.....	5
II. Plant - Wide Conditions	8
III. Emission Point Specific Conditions.....	11
IV. General Conditions	103
G1.Duty to Comply	
G2.Permit Expiration	
G3.Certification Requirement for Title V Related Documents	
G4.Annual Compliance Certification	
G5.Semi-Annual Monitoring Report	
G6.Annual Fee	
G7.Inspection of Premises, Records, Equipment, Methods and Discharges	
G8.Duty to Provide Information	
G9.General Maintenance and Repair Duties	
G10. Recordkeeping Requirements for Compliance Monitoring	
G11. Evidence used in establishing that a violation has or is occurring.	
G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification	
G13. Hazardous Release	
G14. Excess Emissions and Excess Emissions Reporting Requirements	
G15. Permit Deviation Reporting Requirements	
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations	
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification	
G18. Duty to Modify a Title V Permit	
G19. Duty to Obtain Construction Permits	
G20. Asbestos	
G21. Open Burning	
G22. Acid Rain (Title IV) Emissions Allowances	
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements	
G24. Permit Reopenings	
G25. Permit Shield	
G26. Severability	
G27. Property Rights	
G28. Transferability	
G29. Disclaimer	
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification	
G31. Prevention of Air Pollution Emergency Episodes	
G32. Contacts List	

V. Appendix:119

Appendix A: NSPS and NESHAP

Appendix B: Acid Rain

Appendix C: CAIR

Appendix D: EPA Region 7 Compliance Extension

Abbreviations

acfm	actual cubic feet per minute
BACT	Best Available Control Technology
CFR	Code of Federal Regulation
CE	control equipment
CEM	continuous emission monitor
°F	degrees Fahrenheit
EIQ	emissions inventory questionnaire
EP	emission point
EU	emission unit
gr./dscf	grains per dry standard cubic foot
gr./100 cf	grains per one hundred cubic feet
IAC	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
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 – George Neal North
 Permit Number: 97-TV-002R2-M001

Facility Description: Electric Utility (SIC 4911)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-001	EU-001	Neal 1 Boiler - Natural Gas	05-A-878-P1
		Neal 1 Boiler - Coal	05-A-878-P1
EP-002	EU-002	Neal 2 Boiler - Natural Gas	07-A-951-P1
		Neal 2 Boiler - Coal	07-A-951-P1
EP-003	EU-003	Neal 3 Boiler - Natural Gas	95-A-313-P7
		Neal 3 Boiler - Coal	95-A-313-P7
		Neal 3 Boiler – Subbituminous Coal	95-A-313-P7
		Neal 3 Boiler – Used Oil	95-A-313-P7
	EU-201	Unit 3 Waste Exhauster #1	95-A-313-P7
	EU-202	Unit 3 Waste Exhauster #2	95-A-313-P7
	EU-203	Unit 3 Waste Exhauster #3	95-A-313-P7
	EU-208	Unit 3 Recycle Exhauster #1	95-A-313-P7
	EU-209	Unit 3 Recycle Exhauster #2	95-A-313-P7
	EU-210	Unit 3 Recycle Exhauster #3	95-A-313-P7
EP-004	EU-004A	Tower 2A- Bulldozing (fugitive)	None
	EU-004B	Tower 2A - Open Storage (fugitive)	None
EP-005	EU-005A	Tower 2 - Bulldozing (fugitive)	None
	EU-005B	Tower 2 - Open Storage (fugitive)	None
EP-006	EU-006	2 Pit - Coal Conveying (fugitive)	90-A-003-S2
EP-007	EU-007	3 Pit - Coal Conveying (fugitive)	90-A-004-S2
EP-007A	EU-007A	3A Pit - Coal Conveying (fugitive)	90-A-004-S2
EP-008	EU-008	11 Pit - Coal Conveying (fugitive)	08-A-013
EP-009A	EU-009A	Turning Tower - Coal Conveying (fugitive)	None
EP-009B	EU-009B	Unit 3 Silo Fill Cascade/Drag Coal Conveying (fugitive)	None
EP-009C	EU-009C	Unit 3 Silos	90-A-006-S1
EP-010	EU-010	Crusher House - Coal Conveying	90-A-005-S1
EP-011	EU-011	Tripper Floor - Coal Conveying	93-A-247-S2
EP-012	EU-012	Neal 2 Flyash Truck Loading (fugitive)	None
EP-013	EU-013	Neal 3 Flyash Silo Truck Loading (Fugitive)	None
EP-014	EU-014	Emergency Fire Pump - Natural Gas	None
EP-015	EU-015	2 Pit - Coal Unloading (fugitive)	None
EP-017	EU-017	Monofill Haul Road (fugitive)	None
EP-018	EU-018A	Monofill - Grading (fugitive)	None
	EU-018B	Monofill - Unloading (fugitive)	None
	EU-018C	Monofill - Wind Erosion	None

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-020	EU-020	Neal 1 Glycol Storage Tank	None
EP-021	EU-021	Neal 2 Glycol Storage Tank	None
EP-022	EU-022	Neal 3 Glycol Storage Tank	None
EP-023	EU-023	Glycol Storage Tank - Breathing Loss	None
EP-026	EU-026	Emergency Stackout Coal Unloading (fugitive)	None
EP-035	EU-035	Neal 2 Flyash Silo Loading (fugitive)	90-A-184
EP-036	EU-036	Neal 2 Flyash Silo Loading (fugitive)	90-A-185
EP-037	EU-037	Neal 3 Flyash Silo Bin Loading (fugitive)	90-A-186
EP-038	EU-038	Neal 3 Flyash Silo Bin Loading (fugitive)	90-A-187
EP-060	EU-060	Coal Conveyor Bradford Breaker (fugitive)	04-A-894
EP-062	EU-062	Coal Conveyor Vibrating Screen (fugitive)	04-A-895
EP-064	EU-064	Tower 2 Coal Pile Stackout (fugitive)	None
EP-065	EU-065	Tower 2A Coal Pile Stackout (fugitive)	None
EP-066	EU-066	2-2A Coal Conveying (fugitive)	04-A-896
EP-067	EU-067	Unit 1 Emergency Generator 1	None
EP-068	EU-068	Unit 1 Emergency Generator 2	None
EP-069	EU-069	Conveyor 4 Tripper	13-A-119
EP-103	EU-103	Diesel Fire Pump Engine	07-A-990
EP-200	EU-200	Unit 3 Waste Ash Silo	11-A-524-P1
EP-206	EU-206	Unit 3 Lime Silo	11-A-527-P1
EP-207	EU-207	Unit 3 Recycle Ash Silo	11-A-528-P1
EP-211	EU-211	Unit 3 Carbon Silo	11-A-529-P1

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-016	Solvent Part Cleaning
EU-024	Unleaded Gasoline AST (1000 gallons)
EU-030	Diesel AST (1000 gallons)
EU-031	Coal Yard Diesel AST (1000 gallons)
EU-034	Coal Unloading Pit Heating Boiler
EU-040	Unit 1 Turbine Lube Oil Main Tank
EU-041	Unit 2 Turbine Lube Oil Main Tank
EU-042	Unit 1&2 Turbine Lube Oil Batch Tank
EU-043	Unit 1&2 Turbine Lube Oil Clean Tank
EU-044	Unit 3 Turbine Lube Oil Main Tank
EU-045	Unit 3 Turbine Lube Oil Batch Tank
EU-046	Unit 2 Turbine Lube Oil Condition Tank
EU-047	Unit 3 Turbine Lube Oil Condition Tank
EU-048	Waste Oil Tank
EU-052	Cat. Shed Power Washer
EU-054	Unit 2&3 Mill Gearboxes Oil Tank
EU-056	Sand Blaster
EU-057	Welding Operations
EU-070	Insulation Shack Space Heater
EU-071	Fire Pump House Space Heater

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-072	Warehouse 606 Space Heater
EU-073	Contractor Shack Space Heater 1
EU-074	Contractor Shack Space Heater 2
EU-075	Contractor Shack Space Heater 3
EU-076	Contractor Shack Space Heater 4
EU-077	Contractor Shack Space Heater 5
EU-078	N3 Flyash Silo Space Heater
EU-079	N2 Flyash Silo Space Heater
EU-080	Laundry Dryer Room 1
EU-081	Laundry Dryer Room 2
EU-082	Locker Room Boiler 1
EU-083	Locker Room Boiler 2
EU-084	Tinner Shack Space Heater
EU-085	Training Center Space Heater 1
EU-086	Training Center Space Heater 2
EU-087	N3 Intake Space Heater
EU-088	N3 Intake Space Heater 2
EU-089	N3 Intake Space Heater 3
EU-090	N3 Intake Space Heater 4
EU-091	Vacuum Lift House Space Heater 1
EU-092	Vacuum Lift House Space Heater 2
EU-093	N1&N2 Space Heater 1
EU-094	N1&N2 Space Heater 2
EU-095	N1&N2 Space Heater 3
EU-096	N1&N2 Space Heater 4
EU-097	Cat. Shed Space Heater 1
EU-098	Cat. Shed Space Heater 2
EU-099	Oil/Water Separation North Tank
EU-100	Oil/Water Separation South Tank
EU-101	Vibrating Screen Reject
EU-102	Bradford Breaker Reject
EU-104	Neal 2 Fly Ash Transport 1
EU-105	Neal 2 Fly Ash Transport 2
EU-106	Neal 3 Fly Ash Transport 1
EU-107	Neal 3 Fly Ash Transport 2

II. Plant-Wide Conditions

Facility Name: MidAmerican Energy Company – George Neal North
Permit Number: 97-TV-002R2-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.
Commencing on: April 12, 2013
Ending on: April 11, 2018

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

Emission Limits

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

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

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

Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24. For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

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

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

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 – George Neal North 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 – George Neal North 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-006, EP-007, EP-007A, EP-008, EP-009A, EP-009B, EP-009C, EP-060, EP-062, and EP-066.

See Appendix A 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 Y Requirements

This facility is subject to Standards of Performance for Coal Preparation Plants and Processing Plants. The affected units are EP-006, EP-007, EP-007A, EP-008, EP-009A, EP-009B, EP-009C, EP-060, EP-062, and EP-066.

See Appendix A for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

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-103.

See Appendix A for the link of the Standard.

Authority for Requirements: 40 CFR 60 Subpart IIII

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-014, EP-067, EP-068, and EP-103.

See Appendix A for the link of the Standard.

Authority for Requirements: 40 CFR 63 Subpart A

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-014, EP-067, EP-068 and EP-103.

See Appendix A for the link of the Standard.

Authority for Requirements: 40 CFR 63 Subpart ZZZZ

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 and EP-003.

See Appendix A for the link of the Standard.

Authority for Requirements: 40 CFR 63 Subpart UUUUU

See Appendix D for the EPA Region 7 Compliance Extension

III. Emission Point-Specific Conditions

Facility Name: MidAmerican Energy Company – George Neal North

Permit Number: 97-TV-002R2-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);
Overfire Air (CE-001A)

Continuous Emissions Monitors ID Numbers: ME-001A (SO₂), ME-001B (NO_x), ME-001C (CO₂),
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	Neal 1 Boiler	Natural Gas	1,363 MMBtu/hr
	EU-001	Neal 1 Boiler	Coal	1,363 MMBtu/hr
	EU-001	Neal 1 Boiler	Used Oil, Ethylene Glycol, Hazardous Waste	Limited to what is generated at the facility

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
40%	6-Minute Average	COMS	Iowa DNR Construction Permit 05-A-878-P1 567 IAC 23.3(2) "d"	None

Particulate Matter (PM):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
0.5 lb/MMBtu ¹	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 05-A-878-P1 567 IAC 23.3(2) "b" (5)	None

¹ Limit when only Unit 001 in operation. Otherwise PM limits are:

Units 001 and 002 fired – 0.27 lb/MMBtu (total heat input)

Units 001 and 003 fired – 0.26 lb/MMBtu (total heat input)

Units 002 and 003 fired – 0.23 lb/MMBtu (total heat input)

Units 001, 002 and 003 fired – 0.17 lb/MMBtu (total heat input)

Sulfur Dioxide (SO₂):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
1,635.6 lb/hr ¹	3-Hour Average	CEMS	Iowa DNR Construction Permit 05-A-878-P1	None
38,600 lb/day	Daily Total	CEMS	Iowa DNR Construction Permit 05-A-878-P1	None
5.0 lb/MMBtu	3-Hour Average	CEMS	Iowa DNR Construction Permit 05-A-878-P1 567 IAC 23(3) "a"	None

¹ Allowable based on previous limit of 1.2 lb/MMBtu multiplied by the maximum capacity of Unit 1.

Nitrogen Oxides (NO_x):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
2,985 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 05-A-878-P1	None

Carbon Monoxide (CO):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
1.26 lb/MMBtu	3-Hour Average	CEMS	Iowa DNR Construction Permit 05-A-878-P1	BACT
2,507 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 05-A-878-P1	BACT
1,717.4 lb/hr	1-Hr Average	CEMS	Iowa DNR Construction Permit 05-A-878-P1	NAAQS

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 on low sulfur coal and natural gas.
- B. Combustion of used oil and used ethylene glycol shall be limited to that which is generated onsite.
- C. The owner or operator is allowed, but not required, to combust coal which has been treated with chemicals containing additives including a mineral composite of calcium silicate components, other calcium compounds containing iron and aluminum, and 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. The owner or operator shall record if treated coal is combusted and with what chemicals the coal has been treated.

Authority for Requirement: Iowa DNR Construction Permit 05-A-878-P1

NSPS and NESHAP Applicability

This equipment 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 Unit has been granted a one-year compliance extension to comply with the Mercury and Air Toxics Standard (MATS) 40 CFR 63 Subpart UUUUU . The extended date of compliance is now April 16, 2016.

Authority for Requirement: EPA Region 7 Compliance Extension (See Appendix D)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 225

Stack Opening, (inches, dia.): 113

Exhaust Flow Rate (scfm): 366,300

Exhaust Temperature (°F): 320

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-878-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.

Stack Testing:

Pollutant – Particulate Matters (PM)

1st Stack Test to be Completed by – April 11, 2014

2nd Stack Test to be Completed between – October 11, 2015 and October 11, 2016

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

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:

In accordance with 567 IAC 25.1(1) and 25.2, the facility shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP-001, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 1 (PS1). The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the continuous opacity monitoring system (COMS) shall be done in accordance with 40 CFR 75.

In accordance with 567 IAC 25.2, the facility shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP-001, and record the output of the system, for measuring the sulfur dioxide (SO₂) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the CEMS shall be done in accordance with 40 CFR 75.

In accordance with 567 IAC 25.2, the facility shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP-001, and record the output of the system, for measuring the nitrogen oxide (NO_x) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the CEMS shall be done in accordance with 40 CFR 75.

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 facility shall install, calibrate, maintain, and operate a CEMS on EP-001 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 4 (PS4) 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.

Compliance with the opacity, SO₂, 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, SO₂, 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 Unit 1 Boiler except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

- B. The 1-hour average SO₂, NO_x and CO emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.
- C. For each hour of missing emission data (NO_x, SO₂ or CO), the owner or operator shall substitute data by:
1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii. For a missing data period greater than 24 hours, substitute the greater of:
 - (1) The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (2) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 2. If the monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i. For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii. For the missing data period of more than 8 hours, substitute the greater of:
 - (a) The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (b) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 3. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

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

See below for detailed CEMS requirements.

Pollutant – Opacity

Operational Specifications – 40 CFR Part 75 and 40 CFR Part 60

Date of System Calibration and Quality Assurance – 10/01/2004

Ongoing System Calibration/Quality Assurance – 40 CFR Part 75 and 40 CFR Part 60

Reporting & Record keeping – 40 CFR Part 75 and 40 CFR Part 60

Authority for Requirement – 567 IAC 25.1(1) and 567 IAC 25.2

Pollutant – Sulfur Dioxide (SO₂)

Operational Specifications – 40 CFR Part 75
 Date of System Calibration and Quality Assurance – 06/28/2006
 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 – 06/28/2006
 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 – 06/06/2006
 Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
 Reporting & Record keeping – 40 CFR Part 60
 Authority for Requirement – Iowa DNR Construction Permit 05-A-878-P1

Other Parameters

Pollutant – Diluent Carbon Dioxide (CO₂)
 Operational Specifications – 40 CFR Part 75
 Date of System Calibration and Quality Assurance – 09/11/2009
 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 – 09/17/2004
 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: Neal Boiler 1
 Identification: EU-001
 Facility: MidAmerican Energy Co. – George Neal North

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

Regulation No.: Construction Permit 05-A-878-P1
 Particulate Emission Limit: 0.5 lb/MMBtu for PM
 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 loss of rapper/vibrator power supply, 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
----------------------------	---	--

	Indicator #1	Indicator #2
		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 manufacturer's specifications. A spare parts inventory is maintained by a computerized inventory management system. Parts are automatically queued for re-order when the inventory level falls below a minimum re-order point.
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: <ul style="list-style-type: none"> • Inspection of rapper operation. • Inspection of T-R set operation including power usage level. • Inspection of ash removal system operation. Each Major Unit Overhaul: <ul style="list-style-type: none"> • 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, a written or electronic record of all inspections and any action resulting from the inspection, 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-003A)

Continuous Emissions Monitors ID Numbers: ME-002A (SO₂), ME-002B (NO_x), ME-002C (CO₂), 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	Neal 2 Boiler	Natural Gas	3,081 MMBtu/hr
	EU-002	Neal 2 Boiler	Coal	3,081 MMBtu/hr
	EU-002	Neal 2 Boiler	Used Oil, Ethylene Glycol, Hazardous Waste	Limited to what is generated at the facility

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
40%	6-Minute Average	COMS	Iowa DNR Construction Permit 07-A-951-P1 567 IAC 23.3(2) "d"	None

Particulate Matter (PM)

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
0.3 lb/MMBtu ¹	3-Test Run Average	Stack Testing	Iowa DNR Construction Permit 07-A-951-P1 567 IAC 23.3(2) "b" (5)	None

¹Limit when only Unit 002 in operation. Otherwise PM limits are:

Units 001 and 002 fired – 0.27 lb/MMBtu (total heat input)

Units 001 and 003 fired – 0.26 lb/MMBtu (total heat input)

Units 002 and 003 fired – 0.23 lb/MMBtu (total heat input)

Units 001, 002 and 003 fired – 0.17 lb/MMBtu (total heat input)

Sulfur Dioxide (SO₂)

Limit	Average	Compliance	Authority for Requirement	Other
-------	---------	------------	---------------------------	-------

	Period	Demonstration Method		
87,253 lb/day	Daily Total	CEMS	Iowa DNR Construction Permit 07-A-951-P1	None
5 lb/MMBtu	3-Hour Average	CEMS	Iowa DNR Construction Permit 07-A-951-P1 567 IAC 23.3(3) "a"	None

Nitrogen Oxides (NO_x)

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
3,931 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 07-A-951-P1	None

Carbon Monoxide (CO)

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
1.63 lb/MMBtu	3-Hour Average	CEMS	Iowa DNR Construction Permit 07-A-951-P1	BACT
7,287 ton/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 07-A-951-P1	BACT
5,028.2 lb/hr	1-Hour Average	CEMS	Iowa DNR Construction Permit 07-A-951-P1	None

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 on low sulfur coal and natural gas.
- B. Combustion of used oil and used ethylene glycol shall be limited to that which is generated onsite.
- C. The owner or operator is allowed, but not required, to combust coal which has been treated with chemicals containing additives including a mineral composite of calcium silicate components, other calcium compounds containing iron and aluminum, and 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. The owner or operator shall record if treated coal is combusted and with what chemicals the coal has been treated.

Authority for Requirement: Iowa DNR Construction Permit 07-A-951-P1

NSPS and NESHAP Applicability

This equipment 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 Unit has been granted a one-year compliance extension to comply with the Mercury and Air Toxics Standard (MATS) 40 CFR 63 Subpart UUUUU . The extended date of compliance is now April 16, 2016.

Authority for Requirement: EPA Region 7 Compliance Extension (See Appendix D)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 300

Stack Opening, (inches, dia.): 183

Exhaust Flow Rate (scfm): 805,600

Exhaust Temperature (°F): 290

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 07-A-951-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.

Stack Testing:

Pollutant – Particulate Matters (PM)

1st Stack Test to be Completed by – April 11, 2014

2nd Stack Test to be Completed between – October 11, 2015 and October 11, 2016

Test Method - 40 CFR 60, Appendix A, Method 5

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:

In accordance with 567 IAC 25.1(1) and 25.2, the facility shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP-002, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 1 (PS1). The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the continuous opacity monitoring system (COMS) shall be done in accordance with 40 CFR 75.

In accordance with 567 IAC 25.2, the facility shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP-002, and record the output of the system, for measuring the sulfur dioxide (SO₂) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the CEMS shall be done in accordance with 40 CFR 75.

In accordance with 567 IAC 25.2, the facility shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP-002, and record the output of the system, for measuring the nitrogen oxide (NO_x) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the CEMS shall be done in accordance with 40 CFR 75.

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 facility shall install, calibrate, maintain, and operate a CEMS on EP-002 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 4 (PS4) 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.

Compliance with the opacity, SO₂, 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, SO₂, 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 Unit 2 Boiler except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
- B. The 1-hour average SO₂, NO_x and CO emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.
- C. For each hour of missing emission data (NO_x, SO₂ or CO), the owner or operator shall substitute data by:

- C.1 If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii. For a missing data period greater than 24 hours, substitute the greater of:
 - (1) The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (2) 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.2 If the monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i. For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii. For the missing data period of more than 8 hours, substitute the greater of:
 - (1) The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (2) 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.3 If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

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

See below for detailed CEMS requirements.

Pollutant – Opacity

Operational Specifications – 40 CFR Part 75 and 40 CFR Part 60

Date of System Calibration and Quality Assurance – 10/01/2004

Ongoing System Calibration/Quality Assurance – 40 CFR Part 75 and 40 CFR Part 60

Reporting & Record keeping – 40 CFR Part 75 and 40 CFR Part 60

Authority for Requirement – 567 IAC 25.1(1), 567 IAC 25.2

Pollutant – Sulfur Dioxide (SO₂)

Operational Specifications – 40 CFR Part 75

Date of System Calibration and Quality Assurance – 11/08/2007

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 – 11/08/2007

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 – 12/12/2007

Ongoing System Calibration/Quality Assurance – 40 CFR Part 60

Reporting & Record keeping – 40 CFR Part 60

Authority for Requirement: Iowa DNR Construction Permit 07-A-951-P1

Other Parameters:

Pollutant – Diluent Carbon Dioxide (CO₂)

Operational Specifications – 40 CFR Part 75

Date of System Calibration and Quality Assurance – 09/15/2009

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 – 09/25/2004

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: Neal Boiler 2
 Identification: EU-002
 Facility: MidAmerican Energy Co. – George Neal North

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

Regulation No.: Construction Permit 07-A-951-P1
 Particulate Emission Limit: 0.3 lb/MMBtu for PM
 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 loss of rapper/vibrator power supply, 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
----------------------------	---	--

	Indicator #1	Indicator #2
		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	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 manufacturer's specifications. A spare parts inventory is maintained by a computerized inventory management system. Parts are automatically queued for re-order when the inventory level falls below a minimum re-order point.
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: <ul style="list-style-type: none"> • Inspection of rapper operation. • Inspection of T-R set operation including power usage level. • Inspection of ash removal system operation. Each Major Unit Overhaul: <ul style="list-style-type: none"> • 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, a written or electronic record of all inspections and any action resulting from the inspection, 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 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	Neal 3 Boiler	Natural Gas	5,500 MMBtu/hr
	EU-003	Neal 3 Boiler	Subbituminous Coal	5,500 MMBtu/hr
	EU-003	Neal 3 Boiler	#2 Fuel Oil	5,500 MMBtu/hr
	EU-003	Neal 3 Boiler	Used Oil	5,500 MMBtu/hr
	EU-201	Unit 3 Waste Exhauster #1		51 tons/hr
	EU-202	Unit 3 Waste Exhauster #2		51 tons/hr
	EU-203	Unit 3 Waste Exhauster #3		51 tons/hr
	EU-208	Unit 3 Recycle Exhauster #1		74.5 tons/hr
	EU-209	Unit 3 Recycle Exhauster #1		74.5 tons/hr
	EU-210	Unit 3 Recycle Exhauster #1		74.5 tons/hr

Emissions Control Equipment ID Number and Emissions Control Equipment Descriptions are listed in the following table:

Emissions Control Equipment	Emissions Control Equipment Description
CE-003	Electrostatic Precipitator
CE-003A	Low NOX Burners
CE-003B	Non-Catalytic Induction
CE-003C	Flue Gas Desulfurization
CE-003D	Baghouse
CE-003E	Carbon Injection
CE-201	Filter Separator
CE-202	Filter Separator
CE-208	Filter Separator
CE-209	Filter Separator

Continuous Emissions Monitors ID Numbers: ME-003A (SO₂), ME-003AL (SO₂), ME-003B (NO_x), ME-003C (CO₂), ME-003D (Flow), ME-003E (Opacity), ME-003F (CO)

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
40%	6-Minute Average	COMS	Iowa DNR Construction Permit 95-A-313-P7 567 IAC 23.3(2) "d"	None
10%	1 hour Average	COMS	Iowa DNR Construction Permit 95-A-313-P7 567 IAC 23.3(2) "d"	BACT

Particulate Matter 2.5 (PM_{2.5}):

Limit	Average Period	Authority for Requirement	Other
148.5 lb/hr	3-Test Run Average	Iowa DNR Construction Permit 95-A-313-P7 567 IAC 23.3(2) "b" (5)	None
0.027 lb/MMBtu	3-Test Run Average	Iowa DNR Construction Permit 95-A-313-P7 567 IAC 23.3(2) "b" (5)	BACT

Particulate Matter 10 (PM₁₀):

Limit	Average Period	Authority for Requirement	Other
148.5 lb/hr	3-Test Run Average	Iowa DNR Construction Permit 95-A-313-P7	None

Federal Particulate Matter (PM):

Limit	Average Period	Authority for Requirement	Other
148.5 lb/hr	3-Test Run Average	Iowa DNR Construction Permit 95-A-313-P7	None
0.17 lb/MMBtu ²	3-Test Run Average	Iowa DNR Construction Permit 95-A-313-P7	None

² When only boiler in operation. Otherwise PM limits are:
 Units 001 and 002 fired – 0.27 lb/MMBtu (Total heat input)
 Units 001 and 003 fired – 0.26 lb/MMBtu (Total heat input)
 Units 002 and 003 fired – 0.23 lb/MMBtu (Total heat input)

Units 001, 002 & 003 fired – 0.17 lb/MMBtu (Total heat input)

Sulfur Dioxide (SO₂):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
2,200.0 lb/hr	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 95-A-313-P7	None

Nitrogen Oxides (NO_x):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
1,045.0 lb/hr	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 95-A-313-P7	None

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 95-A-313-P7	BACT
10,1178.8 tons/yr	12-Month Rolling Total	CEMS	Iowa DNR Construction Permit 95-A-313-P7	NAAQS
6,930 lb/hr	1-hour Average	CEMS	Iowa DNR Construction Permit 95-A-313-P7	NAAQS

Carbon Dioxide (CO₂):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
2,437 lb/MWhr-net	30-Day Rolling Average	CEMS	Iowa DNR Construction Permit 95-A-313-P7	BACT

Carbon Dioxide equivalent (CO_{2e}):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
5,535,152 tons/yr ¹	12-month rolling total	CEMS	Iowa DNR Construction Permit 95-A-313-P7	BACT

--	--	--	--	--

¹ Compliance with the standard shall be determined by summing the CO₂ data obtained from the CEMs with the calculated CH₄ and N₂O mass emissions based on emission rates determined by the stack testing completed on 8/14/2014. The global warming potentials (GWP) used for determining CO_{2e} emissions of CH₄ shall be 21 and for N₂O shall be 310.

Lead (Pb):

Limit	Average Period	Compliance Demonstration Method	Authority for Requirement	Other
0.14 lb/hr	3-Test Run Average	----	Iowa DNR Construction Permit 95-A-313-P7	None

Operational Limits & Requirements

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

Operating limits for this emission unit shall be:

- A. This unit shall be limited to firing on sub-bituminous coal with sulfur content less than 1.3% by weight, and natural gas.
- B. The owner or operator is not required to operate or maintain the ash collection efficiency of the Electrostatic Precipitator.
- C. The owner or operator shall prepare a work practice manual documenting all efficiency practices at the facility, and submit the manual to the Department prior to placing the scrubber and baghouse project in service. This manual shall specifically address ESP operation and boiler cleanliness practices (such as soot-blowing frequency and usage of slag prevention additives), and also document the existing steam turbine design efficiency and combustion control optimizations at the plant. Prior to placing the scrubber and baghouse project in service, the owner or operator shall evaluate and document the technical and economic feasibility of several available slag prevention additives. The work practice manual shall document the results of the evaluation and contain the recommended application schedule and injection rates for any slag prevention additive scenario that will be used on a long-term basis. The work practice manual shall be implemented upon the later of the Department's review and approval or placing the scrubber and baghouse project in service. The work practice manual shall be revised and submitted to the Department as necessary to document any proposed change to an existing slag prevention additive scenario or the proposed addition of a new slag prevention additive scenario. The revised manual shall be implemented upon the Department's approval of the proposed changes.
- D. Prior to the use of any new slag prevention additives, the owner or operator shall supply material data to the Department for review and approval. This data shall include, but is not limited to:
 - a. A description of the slag prevention additives
 - b. A complete chemical analysis of the material, and
 - c. Evaluation of the impact on air emissions

- E. The following conditions are required on the unpaved haul roads at the facility:
- a. Fugitive emissions from unpaved haul roads shall be controlled by applying a chemical dust suppressant. Applications of the dust suppressant and the recordkeeping requirements described in Condition 15D shall begin at the same time as the startup of Unit 3 after installation of the FGD and SNCR systems. A control efficiency of 95% shall be maintained on all unpaved 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 the dust suppressant recommends a different amount 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 or distributor's recommendations.
 - b. If the selected 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 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.
- F. The following conditions are required on the paved haul roads at the facility:
- a. Fugitive emissions of paved haul roads shall be controlled by either water flushing followed by sweeping or by using a street sweeper that is certified to achieve a pickup efficiency of 80%. The control and recordkeeping requirements described in Condition 15E shall begin at the same time as the startup of Unit 3 after the installation of the FGD and SNCR systems. The water flushing + sweeping or the use of the certified sweeper shall be performed once per day. If used, the water spray rate shall be a minimum of 0.23 gallons per square yard.
 - b. If water flushing followed by sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) is less than 35 F, 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.
 - c. 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-hour time period or the paved road(s) will not be used on a given day.
- G. A bag leak detection system must be installed to meet the following criteria:
- a. At least one detector must be located in each compartment of the baghouse.
 - b. The bag leak detection system must be installed, calibrated, operated 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.
 - c. 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.
 - d. The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
 - e. The bag leak detection system must be equipped with a device to continuously record

- the output signal from the sensors.
- f. 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.
 - g. The system's instrumentation and alarm may be shared among detectors.
 - h. The system's alarm shall sound no more than 5% of the operating time during a 6 month period.
- H. The waste material collected by the fabric filter and stored in the Unit 3 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.
- I. The control equipment shall be inspected and maintained according to the manufacturer's specifications.
- J. The owner or operator is allowed, but not required, to combust coal which has been treated with chemicals containing additives including a mineral composite of calcium silicate components, other calcium compounds containing iron and aluminum, and calcium bromide or calcium chloride.

Authority for Requirement: Iowa DNR Construction Permit 95-A-313-P7

Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, 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 Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The date and an analysis showing the sulfur content of the coal combusted for that day.
- B. The owner or operator shall keep records of control equipment inspections and maintenance.
- C. The owner or operator shall record if treated coal is combusted and with what chemicals the coal has been treated.
- D. The owner or operator shall keep records of the most recent test results for methane (CH₄) and nitrous oxide (N₂O), and use the results of the stack tests to calculate a rolling twelve month total CO_{2e} for the unit as described in footnote 8 of Condition 10a. This calculation shall be updated monthly.
- E. The owner or operator shall maintain a log showing the following for haul roads:
 - a. For paved roads, records of either the use of a certified sweeper or the water flushing applications. The records should include the dates of each application or use, the amount of water applied (if applicable), the areas treated, and the operator's initials. If water is to be used and is not applied when scheduled, the records should so indicate and provide an explanation.
 - b. For unpaved roads, records of dust suppressant application shall be maintained and include the dates of each application, the chemical dust suppressant used, the application intensity in gal/yd², the dilution ratio, and the operator's initials. If the suppressant is not applied as scheduled, the records should so indicate and provide an explanation.
- F. The following records must be maintained from the bag leak detection system:

- a. The date, time, and duration of each system alarm.
- b. The time corrective action was initiated and completed.
- c. A brief description of the cause of the alarm and the corrective action taken.
- d. 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 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.

Authority for Requirement: Iowa DNR Construction Permit 95-A-313-P7

NSPS and NESHAP Applicability

This emission unit is not subject to a New Source Performance Standards (NSPS), as it commenced construction on June 1, 1971 and has not been subsequently modified in such a way as to increase the hourly emission rate of NO_x, SO₂, PM or mercury.

For information only: This emission unit is of the source category affected by the following federal regulation Subpart UUUUU, *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units*.

The facility (plant number 97-04-010) is considered an affected source under 40 CFR 72, 73, 75, 76, 77, and 78 definitions as emission units at this source are subject to the acid rain emission reduction requirements or the acid rain emission limitations, as adopted by the Department by reference (See 567 IAC 22.120 – 567 IAC 22.148).

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): 400

Stack Opening, (ft, dia.): 240

Exhaust Flow Rate (scfm): 1,448,785

Exhaust Temperature (°F): 180

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 95-A-313-P7

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 or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing:

Pollutant – Particulate Matter (PM)

Stack Test – Completed 7/30/2014

Test Method - 40 CFR 60, Appendix A, Method 5

Authority for Requirement – Iowa DNR Construction Permit 95-A-313-P7

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:

The facility (plant number 97-04-010) shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP 003, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 1 (PS1). The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the continuous opacity monitoring system (COMS) shall be done in accordance with 40 CFR 75.

In accordance with 567 IAC 25.2, the facility (plant number 97-04-010) shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP 003, and record the output of the system, for measuring the sulfur dioxide (SO₂) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a notice to the Department with the date of the annual relative accuracy test audit. The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the CEMS shall be done in accordance with 40 CFR 75.

In accordance with 567 IAC 25.2, the facility (plant number 97-04-010) shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on EP 003, and record the output of the system, for measuring the nitrogen oxide (NO_x) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a notice to the Department with the date of the annual relative accuracy test audit. . The operational specifications, ongoing system calibration/quality assurance, and reporting & recordkeeping for the CEMS shall be done in accordance with 40 CFR 75.

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 facility (plant number 97-04-010) shall install, calibrate, maintain, and operate a CEMS on EP 003 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 4 (PS4) 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 notice to the Department with the date of the annual relative accuracy test audit.

Compliance with the carbon dioxide (CO₂) emission limits of this permit shall be continuously demonstrated by the owner or operator through the use of a CEMS. Therefore, the facility (plant number 97-04-010) shall install, calibrate, maintain, and operate a CEMS on EP 003 for measuring CO₂ 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 3 (PS3) 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 notice to the Department with the date of the annual relative accuracy test audit.

Compliance with the opacity, SO₂, 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, SO₂, NO_x, CO, and CO₂ emission standards of this permit:

- A. The CEMS required by this permit shall be operated and data recorded during all periods of operation of Unit 3 Boiler except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
- B. The 1-hour average SO₂, NO_x, CO, and CO₂ 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, SO₂, CO or CO₂), the owner or operator shall substitute data by:
 1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii. For a missing data period greater than 24 hours, substitute the greater of:
 - (1) The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (2) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 2. If the monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i. For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - ii. For the missing data period of more than 8 hours, substitute the greater of:

- (1) The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - (2) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
3. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

The relative accuracy test audits shall be coordinated with the Department. See below for detailed CEMS requirements.

Pollutant – Opacity

Operational Specifications – 40 CFR Part 75 and 40 CFR Part 60
 Date of System Calibration and Quality Assurance – 10/04/2004
 Ongoing System Calibration/Quality Assurance – 40 CFR Part 75 and 40 CFR Part 60
 Reporting & Record keeping – 40 CFR Part 75 and 40 CFR Part 60
 Authority for Requirement – 567 IAC 25.1(1), 567 IAC 25.2

Pollutant – Sulfur Dioxide (SO₂)

Operational Specifications – 40 CFR Part 75
 Date of System Calibration and Quality Assurance – 08/16/1994
 Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
 Reporting & Record keeping – 40 CFR Part 75
 Authority for Requirement – 567 IAC 25.2

Pollutant – Nitrogen Oxides (NO_x)

Operational Specifications – 40 CFR Part 75
 Date of System Calibration and Quality Assurance – 08/16/1994
 Ongoing System Calibration/Quality Assurance – 40 CFR Part 75
 Reporting & Record keeping – 40 CFR Part 75
 Authority for Requirement – 567 IAC 25.2

Pollutant – Carbon Monoxide (CO)

Operational Specifications – 40 CFR Part 60
 Date of System Calibration and Quality Assurance – 02/15/2005
 Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
 Reporting & Record keeping – 40 CFR Part 60
 Authority for Requirement – Iowa DNR Construction Permit 95-A-313-S3

Other Parameters:

Pollutant – Diluent Carbon Dioxide (CO₂)

Operational Specifications – 40 CFR Part 75
 Date of System Calibration and Quality Assurance – 09/15/2009
 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 – 09/15/2004
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-003

Emission Unit(s) ID vented through this Emission Point: EU-003

Emission Unit(s) Description: Unit 3 Boiler

Control Equipment ID Number:	Control Equipment Description:
CE003	Electrostatic Precipitator
CE003A	Low NOx Burners/Over-Fire-Air
CE003B	Selective Non-Catalytic Reduction
CE003C	Flue Gas Desulfurization
CE003D	Baghouse

Emission Limits

Opacity:

Limit:	Averaging Period:	Compliance Demonstration:	Authority for Requirement:	Other:
10%	1-hour average	COMS	IDNR Construction Permit No. 95-A-313- P5	None
40%	6-minute average	COMS	IDNR Construction Permit No. 95-A-313- P5:	None

PM:

Limit:	Averaging Period:	Compliance Demonstration:	Authority for Requirement:	Other:
0.17 lb/mmBtu	3-Test Run Average	Stack Testing	IDNR Construction Permit No. 95-A-313- P5	Federal PM
148.5 lb/hr	3-Test Run Average	Stack Testing	IDN Construction Permit No. 95-A-313- P5	Federal PM

PM10:

Limit:	Averaging Period:	Compliance Demonstration:	Authority for Requirement:	Other:
148.5 lbs/hr	3-Test Run Average	Stack Testing	IDNR Construction Permit No. 95-A-313- P5	None

PM2.5:

Limit:	Averaging Period:	Compliance Demonstration:	Authority for Requirement:	Other:
0.027 lb/mmBtu	3-Test Run Average	Stack Testing	IDNR Construction Permit No. 95-A-313- P5	None
148.5 lbs/hr	3-Test Run Average	Stack Testing	IDNR Construction Permit No. 95-A-313- P5	None

SO2:

Limit:	Averaging Period:	Compliance Demonstration:	Authority for Requirement:	Other:
2,200 lbs/hr	30-day rolling	CEMS	IDNR Construction Permit No. 95-A-313- P5	None

NOX:

Limit:	Averaging Period:	Compliance Demonstration:	Authority for Requirement:	Other:
1,045 lbs/hr	30-day rolling	CEMS	IDNR Construction Permit No. 95-A-313- P5	None

Continuous Emissions Monitoring:

Monitor ID:	Pollutant:	Authority for Requirement:
ME003A	SO2	40 CFR Part 75; IDNR Construction Permit No. 95-A- 313-P5
ME003B	NOX	40 CFR Part 75; IDNR Construction Permit No. 95-A- 313-P5
ME003E	Opacity	40 CFR Part 75; IDNR Construction Permit No. 95-A- 313-P5

Baghouse Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion when the bag leak detection system alarms. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is indicated by an alarm of the bag leak detection system. An excursion does not necessarily indicate a violation of an applicable requirement. The bag leak detection alarm shall not sound for more than 5% of the operating time during a 6-month period.

Monitoring Methods & Corrective Actions

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

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

2. 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.
3. 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.
4. The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
5. The bag leak detection system must be equipped with a device to continuously record the output signal from the sensors.
6. 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.
7. The system's instrumentation and alarm may be shared among detectors.
8. The system's alarm shall sound no more than 5% of the operating time during a 6-month period.

Rationale For The Proposed Elements Of The Monitoring

MidAmerican has proposed to use a continuous bag leak detection system with alarm as the monitoring method for particulate matter. The leak detection monitor is designed to indicate changes in the particulate loading on the clean air side of the baghouse. Should this level increase beyond a predetermined parameter, and alarm will sound indicating to operating personnel of a potential problem with the unit.

Emission Point ID Number: EP-004

Associated Equipment

Associated Emission Unit ID Numbers: EU-004A; EU-004B
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
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-004	EU-004A	Tower 2A- Bulldozing (fugitive)	Coal	2.00 Bulldozers
	EU-004B	Tower 2A - Open Storage (fugitive)	Coal	21.50 Acres

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

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-005

Associated Equipment

Associated Emission Unit ID Numbers: EU-005A; EU-005B
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
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-005	EU-005A	Tower 2 - Bulldozing (fugitive)	Coal	2.0 Bulldozer
	EU-005B	Tower 2 - Open Storage (fugitive)	Coal	10.0 Acre

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

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-006

Associated Equipment

Associated Emission Unit ID Numbers: EU-006
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-006
Emission Unit Description: 2 Pit - 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%

Authority for Requirement: Iowa DNR Construction Permit 90-A-003-S2
40 CFR Part 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 3.09 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 90-A-003-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.02 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 90-A-003-S2

Operational Limits & Requirements

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

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve

compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

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

NSPS and NESHAP Applicability

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

Authority for Requirement: Iowa DNR Construction Permit 90-A-003-S2

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-007 and EP-007A

Associated Equipment

Associated Emission Unit ID Numbers: EU-007; EU-007A
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
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-007	EU-007	3 Pit - Coal Conveying	Coal	1,000.0 ton/hr
EP-007A	EU-007A	3A Pit - Coal Conveying	Coal	1,000.0 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%

Authority for Requirement: Iowa DNR Construction Permit 90-A-004-S2
40 CFR part 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 3.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 90-A-004-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.02 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 90-A-004-S2

Operational Limits & Requirements

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

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)
At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not

limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

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

NSPS and NESHAP Applicability

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

Authority for Requirement: Iowa DNR Construction Permit 90-A-004-S2

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-008

Associated Equipment

Associated Emission Unit ID Numbers: EU-008
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-008
Emission Unit Description: 11 Pit Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 1,300.0 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%
Authority for Requirement: Iowa DNR Construction Permit 08-A-013
40 CFR Part 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM₁₀)
Emission Limit(s): 5.83 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 08-A-013

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.02 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 08-A-013

Operational Limits & Requirements

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

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)
At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)
The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable

standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

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

NSPS and NESHAP Applicability

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

Authority for Requirement: Iowa DNR Construction Permit 08-A-013

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-009A

Associated Equipment

Associated Emission Unit ID Numbers: EU-009A
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-009A
Emission Unit Description: Turning Tower - Coal Conveying (fugitive)
Raw Material/Fuel: Coal
Rated Capacity: 1,300.0 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: Fugitive Dust

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

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

Operational Limits & Requirements

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

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-009B

Associated Equipment

Associated Emission Unit ID Numbers: EU-009B
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-009B
Emission Unit Description: Unit 3 Silo Full Cascade/Drag Coal Conveying (fugitive)
Raw Material/Fuel: Coal
Rated Capacity: 700.0 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: Fugitive Dust

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

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

Operational Limits & Requirements

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

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-009C

Associated Equipment

Associated Emission Unit ID Numbers: EU-009C
Emissions Control Equipment ID Number: CE-007
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-009C
Emission Unit Description: Unit 3 Silo
Raw Material/Fuel: Coal
Rated Capacity: 700.00 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 90-A-006-S1
40 CFR Part 60 Subpart Y
567 IAC 23.1(2) "v"

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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 6.20 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 90-A-006-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 7.68 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 90-A-006-S1

Operational Limits & Requirements

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

Operating Limits

- A. The control equipment shall be inspected and maintained according to manufacturer's specifications.
- B. The drag conveyor shall be used only when the cascade conveyor is down for maintenance.

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 90-A-006-S1

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12'

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

NSPS and NESHAP Applicability

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

Authority for Requirement: Iowa DNR Construction Permit 90-A-006-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 165

Stack Opening, (inches, dia.): 44

Exhaust Flow Rate (scfm): 44,800

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 90-A-006-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)

Compliance Assurance Monitoring Plan for EP-009C

I. Background

A. Emissions Unit:

Description: Unit 3 Silos Coal Conveying
Identification: EU-009C
Facility: MidAmerican Energy Co. – George Neal North

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

Regulation No.: Construction Permit 90-A-006-S1
Particulate Emission Limit: 7.68 lb/hr for PM and 6.20 lb/hr for PM10
Opacity Emission Limit: 20%
Current Monitoring Requirements: Daily visible emissions monitoring
Alternative Monitoring Approach: 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 follow the monitoring approach listed under section III of this CAM plan.

C. Control Technology: Baghouse

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 baghouse.
- 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 filter 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: A 6-minute Method 22-like observation is performed daily, along with weekly and annual performance inspections.

Data collection procedures: The visible emissions observation, a log of performance inspections, and any corrective actions are documented by the observer.

Averaging Period: N/A

III. Alternative Monitoring Approach

A. Indicator to be Monitored: Bag leak detection monitor signal.

B. 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.

C. Monitoring Locations: At the fabric filter outlet.

D. Analytical Devices Required: Bag leak detector and associated instrumentation.

E. 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.

F. Data Requirements

- Historical signal data showing baseline level and cleaning peak height during normal operation or signal data concurrent with emission testing.

G. Specific QA/QC Procedures: Calibrate, maintain, and operate instrumentation using procedures that take into account manufacture's specifications.

Emission Point ID Number: EP-010

Associated Equipment

Associated Emission Unit ID Numbers: EU-010
Emissions Control Equipment ID Number: CE-008
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-010
Emission Unit Description: Crusher House - Coal Conveying
Raw Material/Fuel: Coal
Rated Capacity: 1,200.0 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): 40% ⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 90-A-005-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 5.16 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 90-A-005-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.02 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 90-A-005-S1

Operational Limits & Requirements

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

Operating Limits

- A. The control equipment shall be inspected and maintained 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 90-A-005-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 14

Stack Opening, (inches, dia.): 42

Exhaust Flow Rate (scfm): 30,100

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 90-A-005-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)

Compliance Assurance Monitoring Plan for EP-010

I. Background

A. Emissions Unit:

Description: Crusher House – Coal Conveying
Identification: EU-010
Facility: MidAmerican Energy Co. – George Neal North

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

Regulation No.: Construction Permit 90-A-005-S1
Particulate Emission Limit: 0.02 gr/dscf for PM and 5.16 lb/hr for PM10
Opacity Emission Limit: 40%
Current Monitoring Requirements: Daily visible emissions monitoring
Alternative Monitoring Approach: 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: Baghouse

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 baghouse.
- 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 filter 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: A 6-minute Method 22-like observation is performed daily, along with weekly and annual performance inspections.

Data collection procedures: The visible emissions observation, a log of performance inspections, and any corrective actions are documented by the observer.

Averaging Period: N/A

III. Alternative Monitoring Approach

A. Indicator to be Monitored: Bag leak detection monitor signal.

B. Rationale for Monitoring Approach: Bag leak detectors that operate on principles such as triboelectricity, 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.

C. Monitoring Locations: At the fabric filter outlet.

D. Analytical Devices Required: Bag leak detector and associated instrumentation.

E. 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.

F. Data Requirements

- Historical signal data showing baseline level and cleaning peak height during normal operation or signal data concurrent with emission testing.

G. Specific QA/QC Procedures: Calibrate, maintain, and operate instrumentation using procedures that take into account manufacture's specifications.

Emission Point ID Number: EP-011

Associated Equipment

Associated Emission Unit ID Numbers: EU-011
Emissions Control Equipment ID Number: CE-009
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-011
Emission Unit Description: Tripper Floor - 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): 40% ⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 93-A-247-S2
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 2.65 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 93-A-247-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 93-A-247-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.

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): 180.3

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (scfm): 34,700

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 93-A-247-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)

Compliance Assurance Monitoring Plan for EP-011

I. Background

A. Emissions Unit:

Description: Tripper Floor - Coal Conveying
Identification: EU-011
Facility: MidAmerican Energy Co. – George Neal North

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

Regulation No.: Construction Permit 93-A-247-S2
Particulate Emission Limit: 0.1 gr/dscf for PM and 2.56 lb/hr for PM10
Opacity Emission Limit: 40%
Current Monitoring Requirements: Daily visible emissions monitoring
Alternative Monitoring Approach: 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 follow the monitoring approach listed under section III of this CAM plan.

C. Control Technology: Baghouse

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 baghouse.
- 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 filter 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: A 6-minute Method 22-like observation is performed daily, along with weekly and annual performance inspections.

Data collection procedures: The visible emissions observation, a log of performance inspections, and any corrective actions are documented by the observer.

Averaging Period: N/A

III. Alternative Monitoring Approach

A. Indicator to be Monitored: Bag leak detection monitor signal.

B. 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.

C. Monitoring Locations: At the fabric filter outlet.

D. Analytical Devices Required: Bag leak detector and associated instrumentation.

E. 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.

F. Data Requirements

- Historical signal data showing baseline level and cleaning peak height during normal operation or signal data concurrent with emission testing.

G. Specific QA/QC Procedures: Calibrate, maintain, and operate instrumentation using procedures that take into account manufacture's specifications.

Emission Point ID Number: EP-012

Associated Equipment

Associated Emission Unit ID Numbers: EU-012
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-012
Emission Unit Description: Neal 2 Flyash Truck Loading (fugitive)
Raw Material/Fuel: Coal
Rated Capacity: 240.0 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: Fugitive Dust

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

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

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-013

Associated Equipment

Associated Emission Unit ID Numbers: EU-013
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-013
Emission Unit Description: Neal 3 Flyash Silo Truck Loading (Fugitive)
Raw Material/Fuel: Coal
Rated Capacity: 240.0 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: Fugitive Dust

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

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

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-014

Associated Equipment

Associated Emission Unit ID Numbers: EU-014
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-014
Emission Unit Description: Emergency Fire Pump
Raw Material/Fuel: Natural Gas
Rated Capacity: 0.001 MMCF/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2) "a"

NSPS and NESHAP Applicability

This emission point is of the source category affected by the following federal regulation:
National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal
Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ].

Authority for Requirement: 40 CFR Part 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-015

Associated Equipment

Associated Emission Unit ID Numbers: EU-015
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-015
Emission Unit Description: 2 Pit - Coal Unloading
Raw Material/Fuel: Coal
Rated Capacity: 3,200.0 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: Fugitive Dust

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

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

Operational Limits & Requirements

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

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-017

Associated Equipment

Associated Emission Unit ID Numbers: EU-017
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-017
Emission Unit Description: Monofill Haul Road
Raw Material/Fuel: Ash
Rated Capacity: NA

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-018

Associated Equipment

Associated Emission Unit ID Numbers: EU-018A; EU-018B; EU-018C
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: NA
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-018	EU-018A	Monofill - Grading (fugitive)	Ash	NA
	EU-018B	Monofill - Unloading (fugitive)	Ash	NA
	EU-018C	Monofill - Wind Erosion	Ash	83.00 Acres

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Glycol Storage Tanks

Associated Equipment

Associated Emission Unit ID Numbers: EU-020; EU-021; EU-022; EU-023

Emissions Control Equipment ID Number: None

Emissions Control Equipment Description: NA

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-020	EU-020	Neal 1 Glycol Storage Tank	Ethylene Glycol	2,200 gal/yr (3,000 gal capacity)
EP-021	EU-021	Neal 2 Glycol Storage Tank	Ethylene Glycol	2,200 gal/yr (3,200 gal capacity)
EP-022	EU-022	Neal 3 Glycol Storage Tank	Ethylene Glycol	2,200 gal/yr (430 gal capacity)
EP-023	EU-023	Glycol Storage Tank – Breathing loss	Ethylene Glycol	2,200 gal/yr (300 gal capacity)

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.

No applicable requirements.

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-026

Associated Equipment

Associated Emission Unit ID Numbers: EU-026
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-026
Emission Unit Description: Emergency Stackout Coal Unloading (Fugitive)
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: Fugitive Dust

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

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

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-035

Associated Equipment

Associated Emission Unit ID Numbers: EU-035
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-035
Emission Unit Description: Neal 2 Flyash Silo Loading
Raw Material/Fuel: Flyash
Rated Capacity: 20.0 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): 40%
Authority for Requirement: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.57 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-184
567 IAC 23.3(2) "a"

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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-036

Associated Equipment

Associated Emission Unit ID Numbers: EU-036
Emissions Control Equipment ID Number: CE-016
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-036
Emission Unit Description: Neal 2 Flyash Silo Loading
Raw Material/Fuel: Flyash
Rated Capacity: 20.0 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): 40%
Authority for Requirement: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.57 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-185
567 IAC 23.3(2) "a"

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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-037

Associated Equipment

Associated Emission Unit ID Numbers: EU-037
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-037
Emission Unit Description: Neal 3 Flyash Silo Loading
Raw Material/Fuel: Flyash
Rated Capacity: 20.0 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): 40%
Authority for Requirement: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.57 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-186
567 IAC 23.3(2) "a"

Monitoring Requirements

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

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

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-038

Associated Equipment

Associated Emission Unit ID Numbers: EU-038
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-038
Emission Unit Description: Neal 3 Flyash Silo Loading
Raw Material/Fuel: Flyash
Rated Capacity: 20.0 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): 40%
Authority for Requirement: 567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.57 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-187
567 IAC 23.3(2) "a"

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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-060

Associated Equipment

Associated Emission Unit ID Numbers: EU-060
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-060
Emission Unit Description: Coal Conveying Bradford Breaker
Raw Material/Fuel: Coal
Rated Capacity: 1000.0 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%

Authority for Requirement: Iowa DNR Construction Permit 04-A-894
40 CFR Part 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 04-A-894
567 IAC 22.3(2) "a"

Operational Limits & Requirements

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

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve

compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

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

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: Iowa DNR Construction Permit 04-A-894

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-062

Associated Equipment

Associated Emission Unit ID Numbers: EU-062
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-062
Emission Unit Description: Coal Conveying Vibrating Screen
Raw Material/Fuel: Coal
Rated Capacity: 1000.0 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%

Authority for Requirement: Iowa DNR Construction Permit 04-A-895
40 CFR Part 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 04-A-895
567 IAC 22.3(2) "a"

Operational Limits & Requirements

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

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve

compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

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

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: Iowa DNR Construction Permit 04-A-895

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-064

Associated Equipment

Associated Emission Unit ID Numbers: EU-064
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-064
Emission Unit Description: Tower 2 Coal Pile Stackout
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: Fugitive Dust

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

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

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-065

Associated Equipment

Associated Emission Unit ID Numbers: EU-065
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-065
Emission Unit Description: Tower 2A Coal Pile Stackout
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: Fugitive Dust

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

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

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-066

Associated Equipment

Associated Emission Unit ID Numbers: EU-066
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-066
Emission Unit Description: 2-2A 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%

Authority for Requirement: Iowa DNR Construction Permit 04-A-896
40 CFR Part 60 Subpart Y
567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 04-A-896
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.

NSPS Requirements:

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR 60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR 60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve

compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

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

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: Iowa DNR Construction Permit 04-A-896

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-067

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-067
Emission Unit Description: Unit 1 Emergency Generator 1
Raw Material/Fuel: Diesel
Rated Capacity: 166 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 of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63, Subpart ZZZZ].

Authority for Requirement: 40 CFR Part 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-068

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-068
Emission Unit Description: Unit 1 Emergency Generator 2
Raw Material/Fuel: Diesel
Rated Capacity: 166 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 of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63, Subpart ZZZZ].

Authority for Requirement: 40 CFR Part 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-069

Emission Unit vented through this Emission Point: EU-069

Emission Unit Description: Coal Conveying

Raw Material/Fuel: coal

Rated Capacity: 1000 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 10%

Authority for Requirement: Iowa DNR Construction Permit 13-A-119
567 IAC 23.1(2) "v"

Operational Limits & Requirements

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

Reporting and Recordkeeping

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

- A. All applicable records and reporting per 40 CFR 60.258

Authority for Requirement: Iowa DNR Construction Permit 13-A-119

NSPS and NESHAP Applicability

This equipment is subject to NSPS Subparts A - General Provisions [40 CFR 60 Subpart A] and Y – Standards of Performance for Coal Preparation Plants [40 CFR 60 Subpart Y]

Authority for Requirement: Iowa DNR Construction Permit 13-A-119

Monitoring Requirements

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

Stack Testing:

Pollutant – Opacity

One Time Stack Test – Completed on 12/10/2013

Test Method - 40 CFR 60, Appendix A, Method 9

Authority for Requirement – Iowa DNR Construction Permit 13-A-119

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-103

Associated Equipment

Associated Emission Unit ID Numbers: EU-103
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-103
Emission Unit Description: Diesel Fire Pump Engine
Raw Material/Fuel: Diesel
Rated Capacity: 430.0 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.

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 07-A-990
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.54 g/KW-hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-990
40 CFR Part 60 Subpart III

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 07-A-990
567 IAC 23.3(3) "b"

Pollutant: Carbon Monoxide (CO)

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

Authority for Requirement: Iowa DNR Construction Permit 07-A-990
40 CFR Part 60 Subpart III

Pollutant: THC+NO_x

Emission Limit(s): 10.5 g/KW-hr

Authority for Requirement: Iowa DNR Construction Permit 07-A-990
40 CFR Part 60 Subpart III

Operational Limits & Requirements

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

Operating Limits

- A. This engine shall be fired by diesel fuel only.
- B. The sulfur content of any diesel fuel used in this engine shall not exceed 0.05% by weight.
- C. This engine shall operate no more than 500 hours per 12-month rolling period.
- D. The owner or operator shall meet the fuel requirements specified in 40 CFR §60.4207.
- E. Per 40 CFR §60.4209, the owner or operator shall meet the monitoring requirements specified in 40 CFR §60.4207 and install a non-resettable hours meter prior to the startup of the engine.

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.

- B. Record the sulfur content of any fuel used in this engine, in weight percent.
- C. Record the number of hours this engine is operated. Calculate and record monthly and 12-month rolling totals.
- D. All recordkeeping and monitoring as required by NSPS Subpart IIII.

Authority for Requirement: Iowa DNR Construction Permit 07-A-990

NSPS and NESHAP Applicability

This emission unit is subject to NSPS Subparts A – General Provisions; Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Authority for Requirement: Iowa DNR Construction Permit 07-A-990

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

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (acfm): 2,280

Exhaust Temperature (°F): 851

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 07-A-990

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: 200

Associated Equipment

Emissions Control Equipment ID Number: CE 200
Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: 200
Emission Unit Description: Waste Ash Storage Silo Vent
Raw Material/Fuel: FGD Residual/Ash
Rated Capacity: 2,849 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	Authority for Requirement	Other
40% Opacity	6-minute Average	Iowa DNR Construction Permit 11-A-524-P1	none
No visible emissions (No VE)	1-hour Average	Iowa DNR Construction Permit 11-A-524-P1	BACT

Particulate Matter 2.5 (PM.2.5):

Limit	Averaging Period	Authority for Requirement	Other
0.05 lb/hr	NA	Iowa DNR Construction Permit 11-A-524-P1	Modeling
0.002 gr/dscf	---	Iowa DNR Construction Permit 11-A-524-P1	BACT

Particulate Matter 10 (PM.10):

Limit	Averaging Period	Authority for Requirement	Other
0.12 lb/hr	---	Iowa DNR Construction Permit 11-A-524-P1	Modeling

State Particulate Matter (PM):

Limit	Averaging Period	Authority for Requirement	Other
0.12 lb/hr	---	Iowa DNR Construction Permit 11-A-524-P1	none
0.01 gr/dscf	---	Iowa DNR Construction Permit 11-A-524-P1	none

Operational Limits & Requirements

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

Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall inspect and maintain the control equipment (CE 200) in accordance with manufacturer's specifications.

Authority for Requirement: Iowa DNR Construction Permit 11-A-524-P1

Reporting & Recordkeeping

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

- A. All control equipment inspections and maintenance performed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-524-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 141.25

Stack Opening, (inches, dia.): 48x16

Exhaust Flow Rate (scfm): 1,200

Exhaust Temperature (°F): 150

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 11-A-524-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.

Stack Testing:

Pollutant – Opacity

One Time Stack Test – Completed on 7/30/2014

Test Method - 40 CFR 60, Appendix A, Method 9

Authority for Requirement – Iowa DNR Construction Permit 11-A-524-P1

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Emission Point ID Number: 206

Associated Equipment

Emissions Control Equipment ID Number: CE 206
Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: 206
Emission Unit Description: Lime Storage Silo Vent
Raw Material/Fuel: Lime
Rated Capacity: 1,875 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	Authority for Requirement	Other
40% Opacity	6-minute Average	Iowa DNR Construction Permit 11-A-527-P1	none
No visible emissions (No VE)	1-hour Average	Iowa DNR Construction Permit 11-A-527-P1	BACT

Particulate Matter 2.5 (PM.2.5):

Limit	Averaging Period	Authority for Requirement	Other
0.048 lb/hr	---	Iowa DNR Construction Permit 11-A-527-P1	Modeling

Particulate Matter 10 (PM.10):

Limit	Averaging Period	Authority for Requirement	Other
0.12 lb/hr	---	Iowa DNR Construction Permit 11-A-527-P1	Modeling

State Particulate Matter (PM):

Limit	Averaging Period	Authority for Requirement	Other
0.12 lb/hr	---	Iowa DNR Construction Permit 11-A-527-P1	none
0.01 gr/dscf	---	Iowa DNR Construction Permit 11-A-527-P1	none

Operational Limits & Requirements

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

Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall inspect and maintain the control equipment (CE 206) in accordance with manufacturer's specifications.

Authority for Requirement: Iowa DNR Construction Permit 11-A-527-P1

Reporting & Recordkeeping

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

- A. All control equipment inspections and maintenance performed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-527-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 159.7

Stack Opening, (inches, dia.): 8x14

Exhaust Flow Rate (scfm): 1,700

Exhaust Temperature (°F): 235

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 11-A-527-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.

Stack Testing:

Pollutant – Opacity

One Time Stack Test – Completed on 5/8/2014

Test Method - 40 CFR 60, Appendix A, Method 9

Authority for Requirement – Iowa DNR Construction Permit 11-A-527-P1

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Emission Point ID Number: 207

Associated Equipment

Emissions Control Equipment ID Number: CE 207

Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: 207

Emission Unit Description: Recycle Ash Storage Silo Vent

Raw Material/Fuel: FGD Residual/Ash

Rated Capacity: 555 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	Authority for Requirement	Other
40% Opacity	6-minute Average	Iowa DNR Construction Permit 11-A-528-P1	none
No visible emissions (No VE)	1-hour Average	Iowa DNR Construction Permit 11-A-528-P1	BACT

Particulate Matter 2.5 (PM.2.5):

Limit	Averaging Period	Authority for Requirement	Other
0.025 lb/hr	---	Iowa DNR Construction Permit 11-A-528-P1	Modeling
0.002 gr/dscf	---	Iowa DNR Construction Permit 11-A-528-P1	BACT

Particulate Matter 10 (PM.10):

Limit	Averaging Period	Authority for Requirement	Other
0.06 lb/hr	---	Iowa DNR Construction Permit 11-A-528-P1	Modeling

State Particulate Matter (PM):

Limit	Averaging Period	Authority for Requirement	Other
0.06 lb/hr	---	Iowa DNR Construction Permit 11-A-528-P1	none
0.01 gr/dscf	---	Iowa DNR Construction Permit 11-A-528-P1	none

Operational Limits & Requirements

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

Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall inspect and maintain the control equipment (CE 207) in accordance with manufacturer's specifications.

Authority for Requirement: Iowa DNR Construction Permit 11-A-528-P1

Reporting & Recordkeeping

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

- A. All control equipment inspections and maintenance performed.

Authority for Requirement: Iowa DNR Construction Permit 11-A-528-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 127

Stack Opening, (inches, dia.): 8x14

Exhaust Flow Rate (scfm): 1,100

Exhaust Temperature (°F): 150

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 11-A-528-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.

Stack Testing:

Pollutant – Opacity

One Time Stack Test – Completed on 7/30/2014

Test Method - 40 CFR 60, Appendix A, Method 9

Authority for Requirement – Iowa DNR Construction Permit 11-A-528-P1

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Emission Point ID Number: 211

Associated Equipment

Emissions Control Equipment ID Number: CE 211
Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: 211
Emission Unit Description: Recycle Ash Storage Silo Vent
Raw Material/Fuel: Mercury Sorbent
Rated Capacity: 120 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	Authority for Requirement	Other
40% Opacity	6-minute Average	Iowa DNR Construction Permit 11-A-529-P1	none
No visible emissions (No VE)	1-hour Average	Iowa DNR Construction Permit 11-A-529-P1	BACT

Particulate Matter 2.5 (PM.2.5):

Limit	Averaging Period	Authority for Requirement	Other
0.005 lb/hr	---	Iowa DNR Construction Permit 11-A-529-P1	NAAQS
0.002 gr/dscf	---	Iowa DNR Construction Permit 11-A-529-P1	BACT

Particulate Matter 10 (PM.10):

Limit	Averaging Period	Authority for Requirement	Other
0.01 lb/hr	---	Iowa DNR Construction Permit 11-A-529-P1	none

Particulate Matter (PM):

Limit	Averaging Period	Authority for Requirement	Other
0.01 lb/hr	---	Iowa DNR Construction Permit 11-A-529-P1	none
0.1 gr/scf	---	Iowa DNR Construction Permit 11-A-528-P1	none

Operational Limits & Requirements

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

Operating Limits

Operating limits for this emission unit shall be:

- B. The owner or operator shall inspect and maintain the control equipment (CE 211) in accordance with manufacturer's specifications.

Authority for Requirement: Iowa DNR Construction Permit 11-A-529-P1

Reporting & Recordkeeping

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

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

Authority for Requirement: Iowa DNR Construction Permit 11-A-529-P1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 73

Stack Opening, (inches, dia.): 8x10

Exhaust Flow Rate (scfm): 900

Exhaust Temperature (°F): 68

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 11-A-529-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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

IV. General Conditions

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

G1. Duty to Comply

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

G2. Permit Expiration

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

G3. Certification Requirement for Title V Related Documents

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

G4. Annual Compliance Certification

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

G5. Semi-Annual Monitoring Report

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

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
 - a. Form 1.0 "Facility Identification";
 - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
 - c. Form 5.0 "Title V annual emissions summary/fee"; and

d. Part 3 "Application certification."

4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:

a. Form 1.0 "Facility Identification";

b. Form 5.0 "Title V annual emissions summary/fee";

c. Part 3 "Application certification."

5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.

6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.

7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.

8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

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

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

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

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. 567 IAC 22.108 (15)"b"

G8. Duty to Provide Information

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

G9. General Maintenance and Repair Duties

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

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

G10. Recordkeeping Requirements for Compliance Monitoring

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

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

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

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

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

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

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

G13. Hazardous Release

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

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time.

A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

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

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

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

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
- vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)

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

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

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

G15. Permit Deviation Reporting Requirements

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

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

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

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

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

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

567 IAC 22.110(1)

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

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

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

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

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

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

i. Correct typographical errors

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

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

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

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

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

2. Minor Title V Permit Modification.

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

i. Do not violate any applicable requirement;

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

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

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

- v. Are not modifications under any provision of Title I of the Act; and
 - vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
- i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
 - ii. The permittee's suggested draft permit;
 - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
 - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

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

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

G19. Duty to Obtain Construction Permits

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

shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. 567 IAC 22.1(1)

G20. Asbestos

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

G21. Open Burning

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

G22. Acid Rain (Title IV) Emissions Allowances

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

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

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

a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

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

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

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

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

G24. Permit Reopenings

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

- a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
 - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
 - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
 - d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
 - e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. 567 IAC 22.114(1)
4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. 567 IAC 22.114(2)
 5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. 567 IAC 22.114(3)

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
 - a. Such applicable requirements are included and are specifically identified in the permit; or
 - b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
3. A permit shield shall not alter or affect the following:
 - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. 567 IAC 22.108 (18)

G26. Severability

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

G27. Property Rights

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

G28. Transferability This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). 567 IAC 22.111 (1)"d"

G29. Disclaimer No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. 567 IAC 22.3(3)"c"

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

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

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

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 725-9545

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

G31. Prevention of Air Pollution Emergency Episodes

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

G32. Contacts List

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

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

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

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 725-9500

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

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 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

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

Field Office 6

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

Polk County Public Works Dept.

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

Linn County Public Health

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

Appendix A: 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 Y – Standards of Performance for Coal Preparation Plants and Processing Plants
<http://www.tceq.texas.gov/permitting/air/rules/federal/60/y/yhp.html>
- C. 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>
- D. 40 CFR 63 Subpart A – General Provisions
<http://www.tceq.texas.gov/permitting/air/rules/federal/63/a/ahp.html>
- E. 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>
- F. 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/20111216MATStfinal.pdf>

Appendix B: Acid Rain



AIR QUALITY BUREAU
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324

Phase II Acid Rain Permit

Issued to: George Neal North
Operated by: MidAmerican Energy Company
ORIS code: 1091
Effective: April 12, 2013 through April 11, 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) SO₂ 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) SO₂ 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.	2314*	2314*	2314*	2314*	2314*	2314*

		2013	2014	2015	2016	2017	2018
Unit 2	SO ₂ allowances, under Tables 2 of 40 CFR part 73.	4405*	4405*	4405*	4405*	4405*	4405*
	NO _x limit	<p>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 April 12, 2013 through April 11, 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.</p> <p>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.</p>					

SO₂ Allowance Allocations and NO_x Requirements for each affected unit continued

		2013	2014	2015	2016	2017	2018
Unit 3	SO ₂ allowances, under Tables 2 of 40 CFR part 73.	8556*	8556*	8556*	8556*	8556*	8556*
	NO _x limit	<p>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 April 12, 2013 through April 11, 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.</p> <p>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.</p>					

* 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 SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

3) Comments, Notes and Justifications:

Second renewal of the Phase II SO₂ and NO_x permit.

4) Permit Application: Attached.

Facility (Source) Name (from STEP 1): George Neal North

Permit Requirements

STEP 3

Read the standard 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).

Facility (Source) Name (from STEP 1): George Neal North

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;

Facility (Source) Name (from STEP 1): George Neal North

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

Facility (Source) Name (from STEP 1): George Neal North

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: Reginald R. Soepnel	
Signature 	Date 03/15/2011



Phase II NO_x Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9
This submission is: New Revised

Page 1 of 2

STEP 1

Indicate plant name, State, and ORIS code from NADB, If applicable

Plant Name: George Neal North	State: IA	ORIS Code: 1091
-------------------------------	-----------	-----------------

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# 2	ID# 3	ID#	ID#	ID#	ID#
Type: DBW	Type: DBW	Type	Type	Type	Type

(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(f) Standard annual average emission limitation of 0.66 lb/mmBtu (for cell burner boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(j) NO_x Averaging Plan (include NO_x Averaging form)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(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)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

(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)

<input type="checkbox"/>					
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Plant Name (from Step 1): George Neal North

STEP 2, cont'd.

	ID# 2	ID# 3	ID#	ID#	ID#	ID#
	Type: DBW	Type: DBW	Type	Type	Type	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)	<input type="checkbox"/>					
(n) AEL (Include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>					
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>					
(p) Repowering extension plan approved or under review	<input type="checkbox"/>					

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

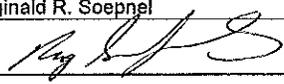
Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

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: Reginald R. Soepnel	
Signature 	Date 03/15/2011

Appendix C: CAIR Permit



Clean Air Interstate Rule (CAIR) Permit

Issued to: George Neal North
Operated by: MidAmerican Energy Company
ORIS code: 1091
Effective: April 12, 2013 through April 11, 2013

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 SO₂ 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.

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, SO₂ 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 SO₂ 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)	765*	765*	651*	651*	651*	651*
	NO _x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	331*	331*	281*	281*	281*	281*
	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) NO_x Annual and NO_x 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)	1426*	1426*	1213*	1213*	1213*	1213*
	NO _x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	603*	603*	513*	513*	513*	513*
	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) NO_x Annual and NO_x 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)	2690*	2690*	2289*	2289*	2289*	2289*
	NO _x Ozone Season Allowances under Table 2A of 567 IAC 34.225(2)	1189*	1189*	1012*	1012*	1012*	1012*
	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 and 3 are affected units under the Acid Rain program and affected units under CAIR. These units are required to acquire allowances to cover their NO_x Annual, NO_x Ozone Season and SO₂ emissions.

4) Permit Application: Attached.

Plant Name (from Step 1) George Neal North 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 SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ 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 SO₂ source, and CAIR NO_x Ozone Season source (as applicable) with the CAIR NO_x emissions limitation, CAIR SO₂ 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 SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ 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 SO₂ units at the source, as determined in accordance with subpart HHH of 40 CFR part 96.

(2) A CAIR SO₂ 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 SO₂ 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 SO₂ allowance was allocated.

(4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 96.

(5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ 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 SO₂ 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 SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR SO₂ 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) George Neal North 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 SO₂ source emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ 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 SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO₂ 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 SO₂ 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 SO₂ source, and CAIR NO_x Ozone Season source (as applicable) and each NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) shall meet the requirements of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(2) Any provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x Ozone Season source (as applicable) or the CAIR designated representative of a CAIR NO_x source, CAIR SO₂ 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 SO₂ 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 SO₂ Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_x unit, CAIR SO₂ 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) George Neal North Energy Center

**STEP 3,
continued**

(g) Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ 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 SO₂ source, and CAIR NO_x Ozone Season source (as applicable) or CAIR NO_x unit, CAIR SO₂ 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

Appendix D: EPA Region 7 Compliance Extension



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

11201 Renner Boulevard
Lenexa, Kansas 66219

AUG 28 2014

Mr. William Whitney
General Manager, Neal Energy Center
MidAmerican Energy
P.O. Box 778
Sioux City, IA 51101

RE: Mercury and Air Toxics Standard, 40 CFR Part 63, Subpart UUUUU Request for a Compliance Extension

Dear Mr. Whitney:

This letter is in response to your request dated July 7, 2014 for a one-year compliance extension for MidAmerican Energy's coal-fired George Neal North boilers Unit 1 and Unit 2 to comply with the Mercury and Air Toxics Standard (MATS). The MATS compliance date for these boilers is April 16, 2015. MidAmerican Energy has requested a compliance extension until April 16, 2016, according to the provisions under 40 CFR § 63.6(i), because MidAmerican Energy asserts it needs additional time to cease using these units because of electric system reliability issues. The U.S. Environmental Protection Agency, Region 7 (EPA), by this letter approves this compliance extension until April 16, 2016.

Pursuant to 40 CFR § 63.6(i)(4)(i), the compliance extension must be incorporated into the Title V permit. Notwithstanding this extension of compliance for the provisions listed above, George Neal North Units 1 and 2 must meet all other applicable federal and State requirements. Pursuant to Section 113 of the Clean Air Act, MidAmerican Energy may be subject to civil fines and penalties of up to \$37,500 per day per violation, should compliance with 40 CFR Part 63 Subpart UUUUU not be achieved by the extended compliance date of April 16, 2016.

If you have any further questions regarding this compliance extension, please contact Mr. Ward Burns, at (913) 551-7960.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark A. Smith".

Mark A. Smith, Chief
Air Permitting and Compliance Branch

cc: Dennis Thielen
Iowa Department of Natural Resources



Printed on Recycled Paper