

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

**Name of Permitted Facility: CF Industries Nitrogen, LLC –
Port Neal Nitrogen Complex**
Facility Location: 1182 260th Street, Sergeant Bluff, Iowa 51054
Air Quality Operating Permit Number: 99-TV-024R3
Expiration Date: November 16, 2020
Permit Renewal Application Deadline: May 16, 2020

EIQ Number: 92-4988
Facility File Number: 97-01-030

Responsible Official

Name: Mr. Nick DeRoos
Title: General Manager
Mailing Address: 1182 260th Street, Sergeant Bluff, Iowa 51054
Phone #: (712) 233-6274

Permit Contact Person for the Facility

Name: Mr. Mike C. Maas
Title: Environmental, Health, and Safety Manager
Mailing Address: 1182 260th Street, P. O. Box 100, Sergeant Bluff, Iowa 51054
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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Lori Hanson, Supervisor of Air Operating Permits Section

Date

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Abbreviations

acfm.....	actual cubic feet per minute
CFR.....	Code of Federal Regulation
CE	control equipment
CEM.....	continuous emission monitor
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP.....	emission point
EU	emission unit
gr./dscf	grains per dry standard cubic foot
gr./100 cf.....	grains per one hundred cubic feet
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
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: CF Industries Nitrogen, LLC - Port Neal Nitrogen Complex
 Permit Number: 99-TV-024R3

Facility Description: Nitrogenous Fertilizers (SIC 2873)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-01N	EU-01N	Industrial Boiler D	96-A-143-S3
EP-02	EU-02	Industrial Boiler B	95-A-396-S3
EP-04	EU-04	Primary Reformer	95-A-460-P4
	EU-04A	Auxiliary Boiler	
EP-05	EU-05	Carbon Dioxide Regenerator	95-A-463-S2
EP-07	EU-07	Nitric Acid Plant #1	95-A-470-S10
EP-08	EU-08	Ammonium Nitrate Neutralizer and UAN Evaporator	95-A-467-S5
EP-20	EU-20	Pre-shift	95-A-462-S1
	EU-20A	Pre-Methanator	
EP-21	EU-21	Ammonia Synthesis Start-up Heater	95-A-466-S1
EP-23	EU-23	Wastewater Evaporator	95-A-468-S3
EP-24	EU-24	Ammonia Flare Pilot Burner	95-A-469-S4
	EU-24A	Ammonia Flare	
EP-25	EU-25	Nitric Acid Plant #2	95-A-810-S5
EP-27	EU-27	Ammonia Flare Pilots and Ammonia Flare	13-A-033-S2
EP-29	EU-29	Haul Road	None
EP-650	EU-650	Caterpillar C15 Air Compressor Engine	12-A-084
EP-651	EU-651	Generac SD080 Generator Diesel Engine	Exempt
EP-652	EU-652	Generac SD150 Generator Diesel Engine	Exempt
EP-653	EU-653	Caterpillar Fire Water Pump B Diesel Engine	Exempt
EP-654	EU-654	Caterpillar Fire Water Pump A Diesel Engine	Exempt
EP-655	EU-655	Cummins GGPB Construction Trailer Generator Engine	Exempt
EP-656	EU-656	Generac SG060 S. Admin Building Generator Engine	Exempt

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-20B	104F Vent
EU-26	Spent Lime Pile
EU-32	MDEA Storage Tank (20,000 gallons)
EU-33	MDEA Additive Storage Tank (4,040 gallons)
EU-39~EU-56, EU-59~EU-110	Storage Tanks (50 to 5,280,000 gallons)
EU-639	Lime Unloading
T2201JB	Fire Water Pump 2201-JB Diesel Tank (300 gallons)
T2201JA	Fire Water Pump 2201-JA Diesel Tank (300 gallons)
T2044J	Caterpillar Air Compressor 2044-J Diesel Tank (500 gallons)
T101N	Emergency Generator 101-N Diesel Tank (50 gallons)
T460J	Emergency Generator 460-J Diesel Tank (50 gallons)
TSwitch	Switch Locomotive Diesel Tank (500 gallons)
T2027J	Old Air Compressor 2027-J Diesel Tank (300 gallons)
TDGas	Fuel Depot Gasoline Tanks (1000 gallons total)
TDDiesel	Fuel Depot Diesel Tanks (1000 gallons total)
TB201K	Used Oil Tanks at Bldg 201K (1000 gallons total)
TB801K	Used Oil Tank at Bldg 801K (500 gallons)
TPond	Used Oil Tank at Retention Pond (550 gallons)
TB115K	Used Oil Tank at Bldg 115K (500 gallons)

II. Plant-Wide Conditions

Facility Name: CF Industries Nitrogen, LLC - Port Neal Nitrogen Complex
Permit Number: 99-TV-024R3

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

Permit Duration

The term of this permit is: 5 years from permit issuance date
Commencing on: November 17, 2015
Ending on: November 16, 2020

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"

40 CFR 60 Subpart A Requirements

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

See Appendix for a link to the Standard.

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

40 CFR 60 Subpart Dc Requirements

This facility is subject 40 CFR Subpart Dc – Standards of Performance for *Small Industrial-Commercial-Institutional Steam Generating Units*. The affected unit is EU-01N.

See Appendix for a link to the Standard.

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

40 CFR 60 Subpart G Requirements

This facility is subject 40 CFR Subpart G – Standards of Performance for *Nitric Acid Plants*. The affected unit is EU-25.

See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart G
567 IAC 23.1(2)"d"

40 CFR 60 Subpart Ga Requirements

This facility is subject 40 CFR Subpart Ga – Standards of Performance for *Nitric Acid Plants for which Construction, Reconstruction or Modification Commenced after October 14, 2011*. The affected unit is EU-07.

See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart Ga

40 CFR 60 Subpart IIII Requirements

This facility is subject 40 CFR Subpart IIII – Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines*. The affected unit is EU-650. Applicable requirements are incorporated in the Emission Point Specific conditions.

See Appendix for a link to the Standard.

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

40 CFR 60 Subpart JJJJ Requirements

This facility is subject 40 CFR Subpart JJJJ - Standards of Performance for *Stationary Spark Ignition Internal Combustion Engines*. The affected units are EU-655 and EU-656. Applicable requirements are incorporated in the Emission Point Specific conditions.

See Appendix for a link to the Standard.

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

40 CFR 63 Subpart A Requirements

These *General Provisions* apply to the facility.

See Appendix for a link to the Standard.

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

40 CFR 63 Subpart ZZZZ Requirements

This facility is subject 40 CFR Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines*. The affected units are EU-650, EU-651, EU-652, EU-653, EU-654, EU-655, and EU-656. Applicable requirements are incorporated in the Emission Point Specific conditions.

See Appendix for a link to the Standard.

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

40 CFR 63 Subpart DDDDD Requirements

This facility is subject 40 CFR Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for *Industrial, Commercial, And Institutional Boilers and Process Heaters*. The affected units are EU01N, EU-02, EU-04, EU-04A, and EU-21. Applicable requirements are incorporated in the Emission Point Specific conditions.

See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 63 Subpart DDDDD

Emission Point ID Number: EP-01N

Associated Equipment

Associated Emission Unit ID Numbers: EU-01N

Emission Unit vented through this Emission Point: EU-01N
Emission Unit Description: Industrial Boiler D
Raw Material/Fuel: Natural Gas
Rated Capacity: 90 MMBtu/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: DNR Construction Permit 96-A-143-S3
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2) "b"(3)

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permit 96-A-143-S3
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 11.0 lb/hr; 48.2 ton/yr
Authority for Requirement: DNR Construction Permit 96-A-143-S3

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 combust natural gas only.
- B. The maximum heat input of this unit shall not exceed 90 MMBTU/hr.

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 type and quantity of each fuel consumed in this unit shall be recorded hourly. A flow meter must be installed to monitor the quantity of fuel being consumed in this unit.
- B. A fuel analysis must be obtained documenting the heat content of the fuel at the beginning of each quarter.
- C. The hourly heat input rate shall be calculated at the end of each hour by multiplying the hourly fuel consumption by the heat content of the fuel obtained at the beginning of the current quarter.

Authority for Requirement: DNR Construction Permit 96-A-143-S3

NSPS and NESHAP Applicability

This emission point is subject to NSPS Subpart Dc – *Small Industrial-Commercial-Institutional Steam Generating Units* and Subpart A – *General Provisions*.

Authority for Requirement: DNR Construction Permit 96-A-143-S3
40 CFR 60 Subpart Dc
567 IAC 23.1(2)"III"

This boiler is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart DDDDD - *Industrial, Commercial, and Institutional Boilers and Process Heaters* and Subpart A – *General Provisions*.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50

Stack Opening, (inches, dia.): 46

Exhaust Flow Rate (scfm): 20,000

Exhaust Temperature (°F): 300

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 96-A-143-S3

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-02

Associated Equipment

Associated Emission Unit ID Numbers: EU-02

Emission Unit vented through this Emission Point: EU-02

Emission Unit Description: Industrial Boiler B

Raw Material/Fuel: Natural Gas

Rated Capacity: 79 MMBtu/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 0%

Authority for Requirement: DNR Construction Permit 95-A-396-S3
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: DNR Construction Permit 95-A-396-S3
567 IAC 23.2(2) "b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

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

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 11.1 lb/hr; 39.5 ton/yr

Authority for Requirement: DNR Construction Permit 95-A-396-S3

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 operated on natural gas only.
- B. The fuel usage for this unit shall be limited to 563,710,000 cubic feet of natural gas per twelve-month rolling period.

Reporting and Recordkeeping

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

- 1. A record of the twelve (12) month rolling total, rolled monthly, fuel usage shall be maintained. This record shall include fuel type and the amount used.

Authority for Requirement: DNR Construction Permit 95-A-396-S3

NSPS and NESHAP Applicability

This boiler is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart DDDDD - *Industrial, Commercial, and Institutional Boilers and Process Heaters* and Subpart A – *General Provisions*.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50

Stack Opening, (inches, dia.): 46

Exhaust Flow Rate (scfm): 18,271

Exhaust Temperature (8F): 300

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-396-S3

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-04

Associated Equipment

Associated Emission Unit ID Numbers: EU-04, EU-04A
Emissions Control Equipment ID Number: CE 04
Emissions Control Equipment Description: Low NO_x Burners
Continuous Emissions Monitors ID Numbers: ME-04

EU	Emission Unit Description	Raw Material	Rated Capacity
EU-04	Primary Reformer	Ammonia	54.17 tons/hr
EU-04A	Auxiliary Boiler	Natural Gas	180 MMBtu/hr

Applicable Requirements

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

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

BACT Emission Limits

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 97.2 tons/yr; 0.037 lb/MMBtu
Authority for Requirement: DNR Construction Permit 95-A-460-P4

Other Emission Limits

Pollutant: Opacity
Emission Limit(s): 40% ⁽¹⁾
Authority for Requirement: DNR Construction Permit 95-A-460-P4
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: DNR Construction Permit 95-A-460-P4
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 80.0 lb/hr; 262.3 ton/yr
Authority for Requirement: DNR Construction Permit 95-A-460-P4

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 22.19 lb/hr
Authority for Requirement: DNR Construction Permit 95-A-460-P4

Operational Limits & Requirements

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

- A. The Primary Reformer & Auxiliary Boiler (EU 04) shall only use natural gas and process gases.
- B. The control equipment (CE 04) shall start up prior to the operation of the new equipment associated with Project Numbers 13-037 and 14-086.
- C. The owner or operator shall submit proposed changes to the final plans and specifications (i.e. stack parameters, maximum rated capacity, operating parameters, other application changes, etc.) for this emission unit and its control equipment to the Department prior to making any proposed changes. The owner or operator shall not make the proposed change to the final plans and specifications until the owner or operator receives written approval from the Department.
- D. The owner or operator shall submit all proposed construction changes (i.e. stack locations, plant layout, building heights, etc.) to Project Numbers 13-037 and 14-086 prior to making the proposed construction change. The owner or operator shall not make the proposed construction change until the owner or operator receives written approval from the Department.

Reporting and Recordkeeping

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

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

Authority for Requirement: DNR Construction Permit 95-A-460-P4

NSPS and NESHAP Applicability

The primary reformer and auxiliary boiler are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart DDDDD - *Industrial, Commercial, and Institutional Boilers and Process Heaters* and Subpart A – *General Provisions*.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 90
Stack Opening, (inches, dia.): 107
Exhaust Flow Rate (scfm): 152,000
Exhaust Temperature (°F): 245
Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-460-P4

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

Monitoring Requirements

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

Continuous Emissions Monitoring

A. The following monitoring systems are required:

- *NO_x*:
The owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) and record the output of the system, for measuring nitrogen oxide (NO_x) emissions.
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.
- *O₂ or CO₂*:
The owner or operator shall install, calibrate, maintain, and operate a CEMS and record the output of the system, for measuring the oxygen (O₂) or carbon dioxide (CO₂) content of the flue gases at each location where NO_x emissions are monitored.
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 Appendix F (Quality Assurance/Quality Control) shall apply.
- *Flowmeter*:
The owner or operator shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of 40 CFR 60, Appendix B, Performance Specification 6 and 40 CFR 60, Appendix F, Procedure 1. In addition, the owner or operator shall record the output of the system, for measuring the volumetric flow of exhaust gases discharged to the atmosphere.

- B. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits (CGA) and annual relative accuracy test audit (RATA). Annual RATAs and quarterly CGAs are required to be conducted on all CEMS and flowmeters required by this permit. The results shall be reported in units of the standards.

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.

- C. The CEMS required in paragraph A above for NO_x and either O₂ or CO₂ shall be operated and the data recorded during all periods of operation including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.
- D. The following data requirements shall apply to all CEMS emission standards in this permit:
- (1) The CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission unit except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
 - (2) The 1-hour average NO_x emission rates measured by the CEMS and flow measured by the flowmeter required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.
 - (3) For each hour of missing emission NO_x data, the owner or operator shall substitute data by:
 - (i) If the quarterly monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - (a) For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - (b) For a missing data period greater than 24 hours, substitute the greater of:
 - The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - (ii) If the quarterly monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - (a) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - (b) For the missing data period of more than 8 hours, substitute the greater of:
 - The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or

- The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- (iii) If the quarterly 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.

Authority for Requirement: DNR Construction Permit 95-A-460-P4

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 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)

Emission Point ID Number: EP-05

Associated Equipment

Associated Emission Unit ID Numbers: EU-05

Emission Unit vented through this Emission Point: EU-05
Emission Unit Description: Carbon Dioxide Regenerator
Raw Material/Fuel: Ammonia
Rated Capacity: 54.17 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): 40%

Authority for Requirement: DNR Construction Permit 95-A-463-S2
567 IAC 23.3(2) "d"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 13.1 lb/hr; 57.5 ton/yr

Authority for Requirement: DNR Construction Permit 95-A-463-S2

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 23.3 lb/hr; 102.0 ton/yr

Authority for Requirement: DNR Construction Permit 95-A-463-S2

Operational Limits & Requirements

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

Operating Limits

A. The maximum production of this unit shall not exceed 474,530 tons of ammonia in any continuous twelve (12) month period.

Reporting and Recordkeeping

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

A. The owner or operator shall maintain a record of the ammonia production. The rolling twelve-month total shall be updated monthly.

Authority for Requirement: DNR Construction Permit 95-A-463-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 85

Stack Opening, (inches, dia.): 12

Exhaust Flow Rate (scfm): 50,600

Exhaust Temperature (°F): 200

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-463-S2

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-07

Associated Equipment

Associated Emission Unit ID Numbers: EU-07
Emissions Control Equipment ID Number: CE-07
Emissions Control Equipment Description: Selective Catalytic Reduction (SCR)
Continuous Emissions Monitors ID Numbers: ME-07

Emission Unit vented through this Emission Point: EU-07
Emission Unit Description: Nitric Acid Plant #1
Raw Material/Fuel: Nitric Acid
Rated Capacity: 20.83 tons of nitric acid produced per hour

Applicable Requirements

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

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

Emission Limits from Consent Decree

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 1.0 lb/ton of 100% nitric acid produced (3-hr rolling) ^{(1) (3)}
0.60 lb/ton of 100% nitric acid produced (365 day rolling) ^{(2) (3)}
Authority for Requirement: DNR Construction Permit 95-A-470-S10
Consent Decree United States v. Terra Industries Inc.,
Civil Action No. 11-4038 (District Court for the Northern
District of Iowa Western Division; April 19, 2011).

⁽¹⁾ Limit required per paragraph 9a of the Consent Decree. Compliance with the limit is based on a three (3) hour rolling average that is rolled hourly and does not apply during periods of startup, shutdown, or malfunction (SSM). Compliance shall be demonstrated through the use of a continuous emission monitoring system (CEMS).
⁽²⁾ Limit required per paragraph 9b of the Consent Decree. Compliance with the limit is based on a 365-day rolling average that is rolled daily and applies at all times including periods of SSM. Compliance shall be demonstrated through the use of CEMS.
⁽³⁾The above-referenced NO_x limits were established pursuant to a negotiated Consent Decree with EPA and shall not be relaxed without the approval of EPA and the DNR.

Other Emission Limits

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

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 20.8 lb/hr ⁽¹⁾; 0.5 lb/ton ⁽²⁾

Authority for Requirement: DNR Construction Permit 95-A-470-S10
40 CFR Part 60 Subpart Ga

- ⁽¹⁾ Emission limit requested by the company (plant number 97-01-030). The limit was based on the rolling three (3) hour limit of 1.0 lb/ton multiplied by the maximum rated capacity of Nitric Acid Plant #1 (20.83 tons/hr) and does not apply during periods of SSM.
- ⁽²⁾ Emission limit requested by the company (plant number 97-01-030). According to the company (plant number 97-01-030), Nitric Acid Plant #1 (EU 07) is subject to Subpart Ga (40 CFR §60.70a – 40 CFR §60.77a; *Standards of Performance for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011*) of the New Source Performance Standards (NSPS). Per 40 CFR §60.72a, the affected facility (EU 07) shall not discharge gases which contain NO_x, expressed as NO₂, in excess of 0.50 pounds (lbs) per ton of nitric acid produced. The standard is a thirty (30) day emission rate calculated based on thirty (30) consecutive operating days and the production expressed as 100% nitric acid. The standard applies at all times including periods of SSM. Compliance shall be demonstrated through the use of CEMS.

Operational Limits & Requirements

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

Operating Limits

- A. The amount of nitric acid produced by Nitric Acid Plant #1 (EU-07) shall not exceed 182,500 tons in any rolling twelve (12) month period.
- B. The owner or operator shall operate and maintain Nitric Acid Plant #1 (EU 07) and the SCR (CE 07) in a manner consistent with good air pollution control practice for minimizing emissions.
- C. Per 567 IAC 33.3(18)“f”(1), prior to beginning actual construction of the project [replacement of the Acid Converter (also known as the Ammonia Oxidizer) and the Reheater] the owner or operator shall document:
 - (1) A description of the project,
 - (2) Identification of the emission unit(s) whose emissions of a regulated NSR pollutant could be affected by the project, and
 - (3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph “3” of the definition of “*projected actual emissions*” in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- D. Per 567 IAC 33.3(18)“f”(4), the owner or operator shall:
 - (1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in paragraph C above.
 - (2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change.
 - (3) Per 567 IAC 33.3(18)“g”, the owner or operator shall make the information required to be

documented and maintained pursuant to 567 IAC 33.3(18)“f” available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

Authority for Requirement: DNR Construction Permit 95-A-470-S10

See the CEMS Plan for NO_x Emissions included as Attachment C of Consent Decree 11-04038 for definitions of the indicated terms and the methodology to demonstrate compliance with the short-term and long-term NO_x limits based on continuous emissions monitoring.

Authority for Requirement: Consent Decree United States v. Terra Industries Inc., Civil Action No. 11-4038 (District Court for the Northern District of Iowa Western Division; April 19, 2011).

Reporting and Recordkeeping

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

- A. A log of the annual amount of nitric acid produced by Nitric Acid Plant #1 (EU 07) on a rolling twelve (12) month basis for each month of operation.
- B. A log of all maintenance and repairs to the SCR (CE-07).
- C. The owner or operator shall keep records for and results of the performance evaluations of the continuous emissions monitoring system (CEMS) in accordance with 40 CFR §60.76a(a).
- D. The owner or operator shall maintain records of the following information for each thirty (30) operating day period in accordance with 40 CFR §60.76a(b):
 - Hours of operation.
 - Production rate of nitric acid, expressed as 100% nitric acid.
 - Thirty (30) day operating day average NO_x emissions rate values.
- E. The owner or operator shall maintain records of the following time periods in accordance with 40 CFR §60.76a(c):
 - Times when the facility is not in compliance with the emissions standards.
 - Times when the pollutant concentration exceeded full span of the NO_x monitoring equipment.
 - Times when the volumetric flowrate exceeded the high value of the volumetric flow rate monitoring equipment.
- F. The owner or operator shall maintain records of the reasons for any periods of noncompliance and description of corrective actions taken in accordance with 40 CFR §60.76a(d).
- G. The owner or operator shall maintain records of any modifications to CEMS which could affect the ability of the CEMS to comply with applicable performance specifications in accordance with 40 CFR §60.76a(e).
- H. The owner or operator shall maintain records of the following information for each malfunction in accordance with 40 CFR §60.76a(f):
 - Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

- Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- I. Per 567 IAC 33.3(18)“f”(1), the owner or operator shall maintain a record of the information required in the Operating Limits paragraph C. above.
 - J. Per 567 IAC 33.3(18)“f”(4) and 567 IAC 33.3(18)“f”(5), the owner or operator shall maintain a record containing the information required in the Operating Limits paragraph D. above, and that record shall be retained by the owner or operator for a period of five (5) years after the project [replacement of the Acid Converter (also known as the Ammonia Oxidizer) and the Reheater] is completed.

Authority for Requirement: DNR Construction Permit 95-A-470-S10

NSPS and NESHAP Applicability

This emission unit is subject to 40 CFR Part 60 Subpart A – *General Provisions*.

Authority for Requirement: DNR Construction Permit 95-A-470-S10
40 CFR Part 60 Subpart A

This emission unit is subject to 40 CFR Part 60, Subpart Ga - *Standards of Performance for Nitric Acid Plants for which Construction, Reconstruction, or Modification Commenced After October 14, 2011*.

Authority for Requirement: 40 CFR Part 60 Subpart Ga
567 IAC 22.108(3)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 89

Stack Opening, (inches, dia.): 40

Exhaust Flow Rate (scfm): 45,000

Exhaust Temperature (°F): 500

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-470-S10

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

Monitoring Requirements

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

Continuous Emissions Monitoring:

The following continuous emission monitoring requirements apply to this emission point and its associated emission unit(s) and control equipment:

A. The following monitoring systems are required:

- *NO_x:*

Per 40 CFR §60.73a, the owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) and record the output of the system, for measuring nitrogen oxide (NO_x) emissions.

The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. This monitor shall also be used to demonstrate compliance with the non-NSPS emission standards in this permit.

- *Flowmeter:*

Per 40 CFR §60.73a, the owner or operator shall install, certify, operate, and maintain a continuous stack gas flow rate monitoring system meeting the requirements of 40 CFR 60, Appendix B, Performance Specification 6 (PS6) and 40 CFR 60, Appendix F, Procedure 1. In addition, the owner or operator shall record the output of the system, for measuring the volumetric flow of exhaust gases discharged to the atmosphere.

B. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits (CGA) and annual relative accuracy test audit (RATA). Annual RATAs and quarterly CGAs are required to be conducted on all CEMS and flowmeters required by this permit. The results shall be reported in units of the standards.

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.

C. The CEMS required by this permit shall be operated and the data recorded during all periods of operation including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, analyzer malfunctions, repairs, calibration checks, and required zero and span adjustments.

D. For the purposes of demonstrating compliance with the NSPS limit listed in the Emission Limitations section of this permit, the owner or operator shall comply with the following applicable requirements of 40 CFR §60.73a in addition to any applicable requirements not detailed in this permit:

(1) In order to demonstrate compliance with the NSPS emission limit in the Emission Limitations section of this permit, the owner or operator shall use the methodology in 40 CFR §60.75a(a) which is to calculate the thirty (30) operating day rolling arithmetic average emissions rate in units of the applicable emissions standard (lb NO_x/ton 100% acid produced) at the end of each operating day using all of the quality assured hourly average CEMS data for the previous thirty (30) operating days.

- (2) The owner or operator shall calculate the thirty (30) operating day average emissions rate according to 40 CFR §60.75a(b) which uses the following equation:

$$E_{30} = \frac{\left[k \left(\frac{1}{n} \right) \sum_{i=1}^n C_i Q_i \right]}{P_i}$$

Where: E_{30} = thirty (30) operating day average emissions rate of NO_x , lb NO_x /ton of 100% HNO_3 ;

C_i = concentration of NO_x for hour i , ppm_v ;

Q_i = volumetric flow rate of effluent gas for hour i , where C_i and Q_i are on the same basis (either wet or dry), scf/hr ;

P_i = total acid produced during production hour i , tons 100% HNO_3 ;

k = conversion factor, 1.194×10^{-7} for NO_x ; and

n = number of operating hours in the thirty (30) operating day period, i.e., n is between 30 and 720.

E. Per the CEMS Plan for NO_x emissions from the Consent Decree [United States v. Terra Industries Inc., Civil Action No. 11-4038 (District Court for the Northern District of Iowa Western Division; April 19, 2011) (Consent Decree)], the owner or operator shall:

(1) Conduct continuous monitoring during all operating periods as follows:

- Once every minute, the NO_x analyzer shall measure the stack NO_x concentration (in ppm_{vd}) and the stack flowmeter will measure the volumetric flow rate in dry standard cubic feet per minute (dscfm). NOTE: for the purposes of the calculations, as-is volumetric flowrate measurements will be assumed to be dry. However, the owner or operator may adjust for any moisture contained in the stack gas if Nitric Acid Plant #1 (EU 07) is equipped with a continuous moisture analyzer.
- For every one (1) hour period [sixty (60) minute period commencing on the hour], the CEMS will reduce the sixty (60) one-minute measurements generated by each analyzer by taking the arithmetic average of the previous sixty (60) measurements during the one (1) hour period. This data will be used to calculate the three (3) hour average NO_x emission rate.

(2) Backup monitoring procedure for long-term NO_x limit:

In the event the NO_x stack analyzer and/or stack flowmeter is/are not available or is/are out-of-control, the owner or operator shall implement the following backup monitoring procedure. The resulting data shall be used to calculate the 365-day average NO_x emission rate.

- Other than as specified below for a CEMS outage or out-of-control period less than twenty-four (24) consecutive hours, the owner or operator shall comply with the following requirements to fill in data gaps in the array:
 - Exit stack gas shall be sampled and analyzed for NO_x at least once every three (3) hours during all operating periods. Sampling shall be conducted by making physical measurements of the NO_x concentration in the gas stream to the main stack using alternative/non-CEMS methods (e.g., through the use of a portable analyzer or non-certified NO_x stack analyzer). The reading obtained will be substituted for the 180 (or less) one (1) minute measurements that would otherwise be utilized if the CEMS were operating normally. Alternatively, the

owner or operator may conduct the required sampling and analysis using a redundant certified NO_x analyzer.

- Stack volumetric flowrate will be estimated using engineering judgement.
 - During required quality assurance or quality control activities (including calibration checks and required zero and span adjustments) of the CEMS and stack flowmeter, the owner or operator may utilize the previous calendar day average value to fill in the data gaps.
 - If any one (1) or more than one (1) of the CEMS or stack flowmeter is/are not operating for a period of less than twenty-four (24) consecutive hours due to breakdowns, malfunctions, repairs, or out-of-control periods of the same, the owner or operator may utilize the previous calendar day average value recorded for each to fill in the data gaps.
- (3) The owner or operator shall record the following production data for each calendar day:
- The date,
 - The quantity of nitric acid produced for that day,
 - The average strength of the nitric acid produced for that day, and
 - The calculated 100% nitric acid produced for that day (in tons/day).
- (4) The owner or operator shall develop a conversion factor for the purpose of converting monitoring data in the terms of NO_x concentration into terms of lb/ton of 100% nitric acid produced per ppm_{vd} consistent with 40 CFR §60.73(b). The owner or operator shall reestablish the conversion factor consistent with 40 CFR §60.73(b) during each relative accuracy test audit (RATA) conducted in accordance with 40 CFR Part 60, Appendix F.
- (5) The owner or operator shall conduct the following emission calculations:

➤ Rolling three (3) hour average:

For purposes of calculating the rolling three (3) hour average NO_x emission rate, the CEMS shall maintain an array of the three (3) most recent and contiguous one (1) hour period average measurements of stack NO_x concentration. Every hour, it will add the most recent one (1) hour period average measurement to the array and exclude the oldest one (1) hour period average measurement. Data generated using the backup monitoring procedure specified in paragraph E(2) above need not be included in this calculation.

The rolling three (3) hour average lb/ton NO_x emission rate (E_{3hravg}) shall be calculated every hour using the equation below:

$$E_{3hravg} = \frac{[K \sum_{i=1}^3 C_{NO_x i}]}{3}$$

Where: C_{NO_x I} = arithmetic average of sixty (60) one-minute measurements of stack NO_x concentration (in ppm_{vd}) in a one (1) hour period;

K = conversion factor determined during most recent NO_x performance test (lb/ton of 100% nitric acid produced per ppm); and

E_{3hravg} = three (3) hour average lb of NO_x per ton of 100% nitric acid produced.

➤ Rolling 365-day average:

For purposes of calculating the 365-day average NO_x emission rate each calendar day the owner or operator shall maintain an array of the mass emissions (lb/day) of NO_x

(calculated using the below equation) and the 100% nitric acid produced for that day (tons/day) and the preceding 364 days. Each subsequent day the data from that day will be added to the array and the data from the oldest day will be excluded. For the purposes of calculating the daily mass emission rate, the CEMS will maintain an array of each one (1) minute measurement of the NO_x concentration (ppm_{vd}) at the exit stack and each one (1) minute measurement of volumetric flow rate (dscfm) of the exit stack over each day. In the event that one or more of the CEMS and stack flowmeter is/are not available, the owner or operator shall use the backup monitoring procedure specified in Condition E.(2) above to fill in the data gaps. The daily NO_x mass emissions shall be calculated following each calendar day using the following equation:

$$M_{NO_x Day} = 1.193 \times 10^{-7} \sum_{i=1}^n Q_{stack\ i} \times C_{NO_x\ i}$$

Where: C_{NO_x i} = one (1) minute measurement of stack NO_x concentration (ppm_{vd}) at interval “i”;
 Q_{stack i} = one (1) minute measurement of stack volumetric flow rate (dscfm) at interval “i”;
 1.193 x 10⁻⁷ = conversion factor in units of pounds per standard cubic foot (lb/scf) NO_x per ppm;
 M_{NO_xDay} = Mass emission of NO_x during a calendar day (lb); and
 n = number of minutes of operating period in a calendar day.

Following each calendar day, the NO_x emission rate as lb/ton averaged over a rolling 365-day period (E_{365-day Avg}) shall be calculated using the following equation:

$$E_{365\text{-day Avg}} = \frac{\sum_{d=1}^{365} M_{NO_x Day\ d}}{\sum_{d=1}^{365} P_d}$$

Where: M_{NO_xDay d} = mass emissions of NO_x during calendar day “d” (lb);
 P_d = 100% nitric acid produced during a calendar day “d” (tons); and
 E_{365-day Avg} = 365-day rolling average lb of NO_x per ton of 100% nitric acid produced.

(6) Upon the completion of the calculations, the owner or operator shall round the final numbers as follows:

- E_{3hravg} : Rounded to the nearest tenth.
- E_{365-day Avg} : Rounded to the nearest hundredth.
- The numbers “5” – “9” shall be rounded up and the numbers “1” – “4” shall be rounded down. Thus, “1.05” shall be rounded to “1.1”, and “1.04” shall be rounded to “1.0”.

- (7) If the owner or operator contends that any three (3) hour rolling average emission rate is in excess of the standard in the Emission Limits from Consent Decree section of this permit due to the inclusion of hours of SSM (startup, shutdown, or malfunction) emissions in the three (3) hour period, the owner or operator shall recalculate E_{3hravg} to exclude measurements recorded during the period(s) of claimed SSM. Nothing in the CEMS Plan for NO_x emissions (Condition E above) shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether Nitric Acid Plant #1 (EU 07) would have been in compliance with the three (3) hour rolling average limit if the appropriate performance test or compliance procedure had been performed.
- (8) For the purposes of the CEMS Plan for NO_x emissions (Condition E above), the NO_x stack analyzers and the stack flowmeter required shall meet the following specifications:

Analyzer	Parameter	Location	Range/Span Value
NO_x Stack Analyzers	NO_x (ppm _{vd})	Stack	Dual Range: <ul style="list-style-type: none"> ▪ Normal: 0 – 200 ppm NO_x ▪ SSM: 0 – 5,000 ppm NO_x
Stack Flowmeter	Volumetric Flowrate (scfm)	Stack	0 – 125% of the maximum expected volumetric flowrate

The NO_x stack analyzers shall meet all applicable requirements of 40 CFR §60.11 and 40 CFR §60.13. However, please note that the daily drift test requirement in 40 CFR §60.13(d) and the requirements of Appendix F apply only to the normal range of the NO_x stack analyzers. The SSM range of the NO_x stack analyzers shall be evaluated once each calendar quarter to verify accuracy.

- (9) In addition to this CEMS Plan for NO_x emissions (Condition E above), the owner or operator shall also comply with all of the requirements of the applicable NSPS relating to monitoring of Nitric Acid Plant #1 (EU 07) except that pursuant to 40 CFR §60.13(i), this CEMS Plan for NO_x emissions (Condition E above) will supersede the following provisions of the applicable NSPS:
- The owner or operator shall utilize the span values specified in the table in Condition E.(8) above instead of the NSPS requirement that the NO_x stack analyzers have a span value of 500 ppm.
 - The owner or operator shall use calibration gases containing NO and/or NO_2 as appropriate to assure accuracy of the NO_x stack analyzers except where verified reference cells are used in accordance with Performance Specification 2 instead of the NSPS requirement that pollutant gas mixtures be nitrogen dioxide (NO_2) for Performance Specification 2 and for calibration checks.

Authority for Requirement – DNR Construction Permit 95-A-470-S10
 Consent Decree United States v. Terra Industries Inc.,
 Civil Action No. 11-4038 (District Court for the Northern
 District of Iowa Western Division; April 19, 2011)

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)

Emission Point ID Number: EP-08

Associated Equipment

Associated Emission Unit ID Numbers: EU-08

Emissions Control Equipment ID Number: CE-08, CE-08A, CE-08B

Emissions Control Equipment Description: CE-08: High Velocity Filter; CE-08A: Filter;
CE-08B: Mist Eliminator

Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-08

Emission Unit Description: Ammonium Nitrate Neutralizer and UAN Evaporator

Raw Material/Fuel: Nitric Acid and ammonia

Rated Capacity: 58.33 tons of ammonium nitrate produced per hour

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: DNR Construction Permit 95-A-467-S5
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 1.5 lb/hr

Authority for Requirement: DNR Construction Permit 95-A-467-S5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.5 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 95-A-467-S5
567 IAC 23.3(2) "a"

Operational Limits & Requirements

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

Operating Limits

A. The production of ammonium nitrate from the Ammonium Nitrate Neutralizer and UAN

- Evaporator (EU-08) shall not exceed 511,000 tons in any monthly rolling, 12-month period.
- B. The UAN Evaporator blower amps shall not exceed 150 amps while the Ammonium Nitrate Neutralizer and UAN Evaporator are in operation.
 - C. The concentration of ammonium nitrate in the UAN Evaporator shall not exceed 40% by volume while the Ammonium Nitrate Neutralizer and UAN Evaporator are in operation.
 - D. The owner or operator shall maintain the control equipment according to manufacturer's specifications and maintenance schedule.

Reporting and Recordkeeping

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

- A. The permittee shall record each month the amount of ammonium nitrate produced from the Ammonium Nitrate Neutralizer and UAN Evaporator. The permittee shall also calculate and record 12-month rolling totals each month.
- B. The permittee shall properly operate and maintain equipment to continuously monitor the UAN Evaporator blower amps. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- C. The permittee shall collect and record the UAN Evaporator blower amps, in amps, continuously. This requirement shall not apply on the days that the Ammonium Nitrate Neutralizer and UAN Evaporator are not in operation.
- D. The permittee shall collect and record the ammonium nitrate concentration in the UAN Evaporator, in percent by volume, at least once per day. This requirement shall not apply on the days that the Ammonium Nitrate Neutralizer and UAN Evaporator are not in operation.
- E. The permittee shall record and submit an excess emissions report to the department each time the UAN Evaporator blower amps and the UAN ammonium nitrate concentration exceed in the limits established in Section "Operating Limits" of this permit simultaneously.
- F. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 95-A-467-S5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 110

Stack Opening, (inches, dia.): 48

Exhaust Flow Rate (scfm): 15,000

Exhaust Temperature (°F): 170

Discharge Style: Vertical, Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-467-S5

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

High Velocity Filter/Mist Eliminator Agency Operation and Maintenance Plan

Facility:	CF Industries Nitrogen, LLC - Port Neal Nitrogen Complex
EIQ Number	92-4988
Emission Point:	EP-08
Emission Unit:	EU-08 (Ammonium Nitrate Neutralizer and UAN Evaporator)
Control Equipment:	CE-08 (Filter, High Velocity) CE-08A (Filter) CE-08B (Mist Eliminator)

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring, Operations, and Corrective Actions

General

- Control Equipment CE-08 (High Velocity Filter), CE-08A (Filter), and CE-08B (Mist Eliminator) operate in conjunction with each other and are monitored as a package.
- Periodic monitoring will be accomplished by observation of the pressure drop across the mist eliminator and the filter elements in 453-L evaporator/wet scrubber.
 - The pressure drop values will be logged every twelve-hour shift while in operation.
 - A low value could indicate loss of filter media or displacement of elements.
 - A high value could indicate pluggage, which could lead to excessive velocities.
- There are no specific startup or shutdown activities for the control equipment. Normal operating range at typical rates would be 2 to 12 inches H₂O.
 - If the indicator is above this range, the filters would be flushed with condensate.
 - If the indicator remains above range or if it is below range, the instrumentation would be checked to verify its output.
 - If the indicator remains out of range, the facility would report the exceedance of indicator ranges to the department.
- Continuous monitoring of the blower amps will be performed.
 - Amps level shall not exceed 150.
 - If levels do exceed 150 Amps, control board alarms will notify the operator of the high level. The operator will immediately adjust the levels to below 150 amps.

- Periodic monitoring of the evaporator concentration will be conducted.
 - Evaporator concentration will be measured and recorded on a minimum of daily basis.
 - If levels do exceed 40%, the control board operator will make adjustment to the plant operating parameters to bring the level below 40%.
- The operation of the unit is critical to the operation of the entire facility.
- If the blower amps exceed 150 and the evaporator concentrations are greater than 40% and the facility is not able to adjust the plant parameters below the agreed levels, source testing will be performed with 60 days of demonstrate compliance with the applicable requirements.
- If compliance is demonstrated, new indicator ranges will be established and incorporated into the operating permit.
- If testing demonstrates non-compliance, a schedule will be submitted within 60 days proposing a schedule of action to bring the source into and demonstrate compliance.

Maintenance

- Because the unit is normally in continuous operation, maintenance affecting the Control Equipment is typically done at plant turnarounds, which occur on a two to three year cycle.
 - Filters are then inspected for integrity of the medium and positioning and retention hardware and gaskets are checked.
 - Repair and/or replacement are done as needed.
 - A spare set of filter elements is kept on hand.
 - Replacement cycle for the filters is expected to be completed during facility turnarounds.
 - Useful life of the mist eliminator is expected to be essentially permanent. It will be inspected and repaired as necessary at the same time that filter maintenance is performed.

Mechanical Integrity Program

The owner/operator shall adhere to the current Mechanical Integrity (M.I.) Program. The purpose of the M.I. Program is to assure the continued mechanical reliability of the process equipment.

The categories of equipment included in this program are listed below:

- Pressure Vessels and Tanks
- Piping Systems and Valves
- Relief and Vent Valves
- Emergency Shutdown Systems
- Pumps, Compressors, and Turbines
- Process Controls

Equipment which is used to monitor key process parameters is serviced as necessary. A UAN plant outage is required to perform an internal inspection of the scrubbers. Inspections of the 1st neutralizer internals (including, but not limited to, the vortex breaker) shall be completed during facility turnarounds. Inspection frequency is determined by reliability and engineering personnel. Instrumentation will be maintained and operated according to generally accepted engineering practices and historical experiences. An adequate inventory of spare parts shall be kept. Documentation of testing and inspection records of the critical equipment is maintained as part of the M.I. Program. All employees involved in maintaining the on-going integrity of the process equipment shall be trained in accordance with the facility's M.I. Program.

Record Keeping and Reporting

- All records will be retained for at least five (5) years and will be available for review upon request by any authorized regulatory agency.
- Records to be retained for and/or submitted to regulatory agencies include:
 - Operators daily logs
 - Maintenance records
 - Spare parts inventory

Quality Control

(The following quality control measures will be implemented in association with the operation of the Control Equipment.)

- All instruments and equipment will be calibrated, operated, and maintained according to equipment manufacture's recommendations.
- This Operation and Maintenance Plan will be available for review at the facility.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-20

Associated Equipment

Associated Emission Unit ID Numbers: EU-20, EU-20A

EU	Emission Unit Description	Raw Material	Rated Capacity
EU-20	Pre-shift	Ammonia	54.17 tons/hr
EU-20A	Pre-Methanator	Ammonia	54.17 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: Carbon Monoxide (CO)

Emission Limit(s): 1736.5 tons/yr

Authority for Requirement: DNR Construction Permit 95-A-462-S1

Operational Limits & Requirements

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

Operating Limits

- A. The emission of Carbon Monoxide (CO) shall not exceed a maximum of 1,736.5 tons in any continuous twelve-month period.

Reporting and Recordkeeping

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

- A. A copy of the emission profiles shall be kept on site for review. A record of the usage of this vent shall be kept as well. This record shall denote the process (startup, shutdown, etc.) and the duration of the usage. From the profile and other records, a total amount of CO emitted over the previous twelve-month period shall be calculated and recorded.

Authority for Requirement: DNR Construction Permit 95-A-462-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 175
Stack Opening, (inches, dia.): 18
Exhaust Flow Rate (scfm): 109,000
Exhaust Temperature (°F): 680
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-462-S1

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

Monitoring Requirements

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-21

Associated Equipment

Associated Emission Unit ID Numbers: EU-21

Emission Unit vented through this Emission Point: EU-21
Emission Unit Description: Ammonia Synthesis Start-Up Heater
Raw Material/Fuel: Natural Gas
Rated Capacity: 19.50 MMBtu/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 0%

Authority for Requirement: DNR Construction Permit 95-A-466-S1
567 IAC 23.3(2) "d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.80 lb/MMBtu

Authority for Requirement: DNR Construction Permit 95-A-466-S1
567 IAC 23.3(2) "b"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

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

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 3.0 lb/hr; 0.45 ton/yr

Authority for Requirement: DNR Construction Permit 95-A-466-S1

Operational Limits & Requirements

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

Operating Limits

- A. The hours of operation of this unit shall not exceed 300 hours in any continuous twelve-month period.

Reporting and Recordkeeping

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

A. A record of the hours of operation of this unit shall be kept. The total for the previous twelve-month period shall be recorded at the end of each month.

Authority for Requirement: DNR Construction Permit 95-A-466-S1

NSPS and NESHAP Applicability

This heater is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart DDDDD - *Industrial, Commercial, and Institutional Boilers and Process Heaters* and Subpart A – *General Provisions*.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 72.50

Stack Opening, (inches, dia.): 97

Exhaust Flow Rate (scfm): 3,942

Exhaust Temperature (°F): 1,500

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-466-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-23

Associated Equipment

Associated Emission Unit ID Numbers: EU-23

Emissions Control Equipment ID Number: CE-23, CE-23A, CE-23B

Emissions Control Equipment Description: CE-23: Filter; CE-23A: Filter, High Velocity; CE-23B: Mist Eliminator

Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-23

Emission Unit Description: Wastewater Evaporator

Raw Material/Fuel: Waste Water

Rated Capacity: 55,667.00 lb/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: DNR Construction Permit 95-A-468-S3
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): 2.6 lb/hr

Authority for Requirement: DNR Construction Permit 95-A-468-S3

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.10 gr/dscf

Authority for Requirement: DNR Construction Permit 95-A-468-S3
567 IAC 2.3(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): 82.80
Stack Opening, (inches, dia.): 48
Exhaust Flow Rate (scfm): 35,000
Exhaust Temperature (°F): 170
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-468-S3

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

Monitoring Requirements

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

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

Authority for Requirement: 567 IAC 22.108(3)

High Velocity Filter/Mist Eliminator Agency Operation and Maintenance Plan

Facility:	CF Industries Nitrogen, LLC - Port Neal Nitrogen Complex
EQ Number	92-4988
Emission Unit:	EU-23 (Wastewater Evaporator)
Emission Point:	EP-23
Control Equipment:	CE-23A (High Velocity Filter) and CE-23B (Mist Eliminator)

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrate compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

Monitoring, Operations, and Corrective Actions

General

- Control Equipment CE-23A (High Velocity Filter) and CE-23B (Mist Eliminator) operate in conjunction with each other and are monitored as a package.
- Periodic monitoring will be accomplished by observation of the pressure drop across the mist eliminator and the filter elements in EU-23 (Wastewater Evaporator).
 - The pressure drop values will be logged every twelve hour shift while in operation.
 - A low value could indicate loss of filter media or displacement of elements.
 - A high value could indicate pluggage, which could lead to excessive velocities.
- There are no specific startup or shutdown activities for the control equipment. Normal operating range at typical rates would be 2 to 10 inches H₂O.
 - If the indicator is above this range, the filters would be flushed with condensate.
 - If the indicator remains above range or if it is below range, the instrumentation would be checked to verify its output.
 - If the indicator remains out of range, the facility would report the exceedance of indicator ranges to the department.
- The operation of the unit is not critical to the operation of the entire facility.
 - Accordingly, if the indicator remains out of range, the unit would be shut down for inspection and repairs.
 - If the indicator remains out of range, the facility would report the exceedance of the indicator range to the department. Source testing will be conducted within 90 days of the exceedance to demonstrate compliance with the applicable requirements.

- If compliance is demonstrated, new indicator ranges will be established and incorporated into the operation permit.
- If testing demonstrates non-compliance, a schedule will be submitted within 60 days proposing a schedule of action to bring the source into and demonstrate compliance.

Maintenance

- Because this unit is not vital to the operation of the facility the filter elements can be changed out at any time during the course of a two or three year cycle.
 - Filters are inspected for integrity of the medium and positioning and retention hardware and gaskets are checked.
 - Repair and/or replacement are done as needed.
 - A spare set of filter elements is kept on hand.
 - Replacement cycle for the filters is expected to be approximately every two to three years.
 - Useful life of the mist eliminator is expected to be essentially permanent. It will be inspected and repaired as necessary at the same time that filter maintenance is performed.

Record Keeping and Reporting

- All records will be retained for at least five (5) years and will be available for review upon request by any authorized regulatory agency.
- Records to be retained for and/or submitted to regulatory agencies include:
 - Operators daily logs
 - Maintenance records
 - Spare parts inventory

Quality Control

(The following quality control measures will be implemented in association with the operation of the Control Equipment.)

- All instruments and equipment will be calibrated, operated, and maintained according to equipment manufacture's recommendations.
- This Operation and Maintenance Plan will be available for review at the facility.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-24

Associated Equipment

Associated Emission Unit ID Numbers: EU-24

EU	Emission Unit Description	Raw Material	Rated Capacity
EU-24	Ammonia Flare Pilot Burner	Natural Gas	1.50 MMBtu/hr
EU-24 A	Ammonia Flare	Ammonia	1.15 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): 0%

Authority for Requirement: DNR Construction Permit 95-A-469-S4
567 IAC 23.3(2) "d"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 4.0 ton/yr

Authority for Requirement: DNR Construction Permit 95-A-469-S4

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.

- A. A record of any time that this unit is used to combust ammonia and the amount of ammonia that is combusted shall be maintained monthly.

Authority for Requirement: DNR Construction Permit 95-A-469-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50
Stack Opening, (inches, dia.): 6.50
Exhaust Flow Rate (scfm): 440
Exhaust Temperature (°F): 2,000
Discharge Style: Vertical, Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-469-S4

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

Monitoring Requirements

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-25

Associated Equipment

Associated Emission Unit ID Numbers: EU-25
Emissions Control Equipment ID Number: CE-25
Emissions Control Equipment Description: Selective Catalytic Reduction (SCR)
Continuous Emissions Monitors ID Numbers: ME-25

Emission Unit vented through this Emission Point: EU-25
Emission Unit Description: Nitric Acid Plant #2
Raw Material/Fuel: Nitric Acid
Rated Capacity: 20.83 tons of nitric acid produced per hour

Applicable Requirements

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

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

Emission Limits from Consent Decree

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 1.0 lb/ton of 100% nitric acid produced (3-hr rolling) ^{(1) (3)}
0.60 lb/ton of 100% nitric acid produced (365 day rolling) ^{(2) (3)}
Authority for Requirement: Consent Decree United States v. Terra Industries Inc.,
Civil Action No. 11-4038 (District Court for the Northern
District of Iowa Western Division; April 19, 2011).

⁽¹⁾ Limit required per paragraph 10a of the Consent Decree. Compliance with the limit is based on a three (3) hour rolling average that is rolled hourly and does not apply during periods of startup, shutdown, or malfunction (SSM).

⁽²⁾ Limit required per paragraph 10b of the Consent Decree. Compliance with the limit is based on a 365-day rolling average that is rolled daily and applies at all times including periods of SSM.

⁽³⁾ The above-referenced NO_x limits were established pursuant to a negotiated Consent Decree with EPA and shall not be relaxed without the approval of EPA and the DNR.

Other Emission Limits

Pollutant: Opacity
Emission Limit(s): 10% ⁽¹⁾
Authority for Requirement: DNR Construction Permit 95-A-810-S5
40 CFR Part 60 Subpart G

⁽¹⁾ Opacity limit shall apply at all times except during periods of startup, shutdown, and malfunction as provided in 40 CFR 60.11(c).

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 62.5 lb/hr; 221.7 tons/yr; 3.0 lb/ton ⁽²⁾

Authority for Requirement: DNR Construction Permit 95-A-810-S5
40CFR Part 60 Subpart G

- ⁽²⁾ 3.0 lb/ton of acid produced, the production being expressed as 100 percent nitric acid, with compliance based on a 3-hour average (arithmetic average of three contiguous 1-hour periods). Limit applies at all times except during periods of startup, shutdown, and malfunction as provided in 40 CFR 60.8(c).

Operational Limits & Requirements

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

Operating Limits

- A. The production rate of nitric acid from Nitric Acid Plant # 2 shall not exceed 182,500 tons of nitric acid in any continuous twelve (12) month period, rolled monthly.
- B. The Selective Catalytic Reduction unit shall be operated at all times that nitric acid production is occurring.
- C. The owner or operator shall demonstrate compliance with the following NO_x emission requirements by the corresponding specified compliance date:
 - i. Short-Term NO_x Limit: 1.0 lb/ton (March 31, 2012).
 - ii. Long-Term NO_x Limit: 0.60 lb/ton. Port Neal Corporation shall commence monitoring its NO_x emissions from Port Neal #2 as of March 31, 2012, in accordance with the applicable CEMS Plan in Attachment C of the Federal Consent Decree, but shall have until March 31, 2013, to demonstrate compliance with this Long-Term NO_x Limit.
- D. The owner or operator shall at all times, to the extent practicable, maintain and operate the Nitric Acid Plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, consistent with 40 CFR §60.11(d).
- E. On or before March 1, 2012, the owner or operator shall prepare and submit to DNR and EPA Region 7 an Operation and Maintenance Plan (“O&M Plan”) for Nitric Acid Plant #2 (EU-25) and shall implement the O&M Plan on or before March 31, 2012. The O&M Plan shall describe the operating and maintenance procedures necessary to:
 - i. Minimize the frequency of Nitric Acid Plant #2 Shutdowns; and
 - ii. At all times, including periods of Startup, Shutdown, and Malfunction, maintain and operate Nitric Acid Plant #2, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The owner or operator shall review and update (if necessary) the O&M Plan at least once every three (3) years.

Authority for Requirement: DNR Construction Permit 95-A-810-S5

See the CEMS Plan for NO_x Emissions included as Attachment C of Consent Decree 11-04038 for definitions of the indicated terms and the methodology to demonstrate compliance with the

short-term and long-term NO_x limits based on continuous emissions monitoring.

Authority for Requirement: Consent Decree United States v. Terra Industries Inc.,
Civil Action No. 11-4038 (District Court for the Northern
District of Iowa Western Division; April 19, 2011).

Reporting and Recordkeeping

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

- A. A record of the daily production rate and the hours of operation shall be maintained. A record of the total amount of nitric acid produced from Nitric Acid Plant #2 over the previous twelve (12) months shall be recorded at the end of each month.
- B. The owner or operator shall record the daily production rate and hours of operation.

Authority for Requirement: DNR Construction Permit 95-A-810-S5

- A. Compliance with the NO_x limit of 3.0 lb NO_x per ton of pure nitric acid produced shall be demonstrated by the average nitrogen oxides emissions (arithmetic average of three contiguous 1-hour periods rolled hourly) as measured by a continuous monitoring system.

Authority for Requirement: 40 CFR 60 Subpart G
567 IAC 23.1(2)"d"

- B. Compliance with the NO_x limit of 62.5 lb/hr shall be demonstrated on a daily basis by multiplying the average pounds of NO_x per ton of production by the tons of production for the day divided by the hours of operation for the day.

Authority for Requirement: 567 IAC 22.108 (3)

NSPS and NESHAP Applicability

This emission unit is subject to 40 CFR Part 60 Subpart G – Standards of Performance for *Nitric Acid Plants*. This emission unit is subject to 40 CFR Part 60 Subpart A – *General Provisions*.

Authority for Requirement: DNR Construction Permit 95-A-810-S5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 120

Stack Opening, (inches, dia.): 40

Exhaust Flow Rate (scfm): 35,000

Exhaust Temperature (°F): 330

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 95-A-810-S5

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

Monitoring Requirements

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

Opacity Monitoring

Weekly opacity monitoring is not required when the NO_x concentration in the exhaust is below 200 ppmv on a three-hour rolling average (rolled hourly) basis as measured by the NO_x CEMS system.

If the NO_x concentration is equal to or greater than 200 ppmv and visible emissions are present at any time other than start-up, shutdown or cleaning of control equipment, a Method 9 observation will be required.

If an opacity >10% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the NO_x emission concentration data, the opacity observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

Continuous Emissions Monitoring:

Pollutant – Nitrogen Oxides (NO_x)

Operational Specifications – as specified in 40 CFR 60 Subpart G

Date of Initial System Calibration and Quality Assurance – October 31, 2014

Ongoing System Calibration/Quality Assurance – as specified in 40 CFR 60 Subpart G

Reporting & Record keeping – as specified in 40 CFR 60 Subpart G. Submit all reports and petitions required by 40 CFR 60 Subpart G to the DNR in order to demonstrate compliance with the NO_x limit.

Authority for Requirement – 567 IAC 23.1(2) "d"

40 CFR 60 Subpart G

Consent Decree United States v. Terra Industries Inc.,

Civil Action No. 11-4038 (District Court for the Northern District of Iowa Western Division; April 19, 2011)

- A. By No later than March 31, 2012, the owner or operator shall install, certify, and calibrate a NO_x Continuous Emissions Monitoring System (CEMS) associated with Port Neal Nitric Acid Plant #2. The CEMS shall include a NO_x analyzer capable of measuring NO_x concentration and a stack flowmeter that senses volumetric flow rate.
- B. Except as may be specified in accordance with the applicable CEMS Plan in Attachment C of the Federal Consent Decree, the NO_x stack analyzer shall comply with 40 CFR Part 60, Appendix B, Performance Specification 2 and the quality assurance/quality control requirements specified in 40 CFR Part 60, Appendix F, Procedure 1, and the stack flowmeter shall comply with 40 CFR Part 60, Appendix B, Performance Specification 6. NO_x emission testing as required under Condition 12 of this permit may serve as the CEMS relative accuracy test required under Performance Specification 2 in 40 CFR Part 60, Appendix B.
- C. On and after March 31, 2012, and except during periods of CEMS breakdowns, analyzer malfunctions, repairs, and required quality assurance or quality control activities (including calibration checks and required zero and span adjustments), the CEMS shall be in continuous operation during all Operating Periods (as that term is defined in this permit).
- D. The owner or operator shall take all necessary steps to minimize CEMS breakdowns and minimize CEMS downtime including, but not limited to, operating and maintaining the CEMS in accordance with best practices and maintaining an on-site inventory of spare parts or other supplies necessary to make rapid repairs to the equipment.
- E. The owner or operator shall comply with the applicable CEMS Plan in Attachment C of the Federal Consent Decree.
- F. This monitor shall also be used to demonstrate compliance with the non-NSPS emission standards in this permit.

Authority for Requirement: DNR Construction Permit 95-A-810-S5

Consent Decree United States v. Terra Industries Inc.,

Civil Action No. 11-4038 (District Court for the Northern

District of Iowa Western Division; April 19, 2011)

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

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-27

Associated Equipment

Associated Emission Unit ID Numbers: EU-27, EU-27A

Emission Unit vented through this Emission Point: EU-27, EU-27A

Emission Unit Description: Ammonia Flare Pilots and Ammonia Flare

Raw Material/Fuel: Natural Gas (Flare Pilots) and Process Gas (Flare)

Rated Capacity: 0.10 MMBtu/hr (Natural Gas) and 32,160 lb/hr (Process Gas)

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: DNR Construction Permit 13-A-033-S2
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 13-A-033-S2
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppm

Authority for Requirement: DNR Construction Permit 13-A-033-S2
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 8.1 tons/yr

Authority for Requirement: DNR Construction Permit 13-A-033-S2

Operational Limits & Requirements

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

Operating Limits

- A. The Ammonia Flare (EU 27 & EU 27A) shall be fueled with natural gas and/or ammonia plant purge gas as fuel to maintain the pilot, maintain pressure to the flare during idling, and as enrichment fuel if needed.
- B. The Ammonia Flare (EU 27 & EU 27A) is authorized to flare ammonia and ammonia plant

purge gas.

C. The Ammonia Flare (EU 27 & EU 27A) shall:

- (1) Be designed for and operated with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.
- (2) Be operated with a flame present at all times.
- (3) Be designed to ensure smokeless operation.

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 presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- B. The owner or operator shall record and maintain the following monthly records:
 - The number of hours that the flare was in operation,
 - The emissions from the flare for each pollutant for that month,
 - The rolling twelve (12) month total of the number of hours that the flare was in operation, and
 - The rolling twelve (12) month total emissions for each pollutant for each month of operation.
- C. The owner or operator shall maintain records of any maintenance work performed on the Ammonia Flare (EU 27 & EU 27A).
- D. The owner or operator shall properly maintain equipment used to continuously monitor the pilot flame.
- E. The owner or operator shall record any periods of time during which there was no pilot flame.

Authority for Requirement: DNR Construction Permit 13-A-033-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 150 (just pilot burner), 15,000 (flare events)

Exhaust Temperature (°F): 1,830 (just pilot burner), 1,830 (flare events)

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 13-A-033-S2

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-29

Associated Equipment

Associated Emission Unit ID Numbers: EU-29

Emission Unit vented through this Emission Point: EU-29
Emission Unit Description: Haul Road Fugitive Emissions
Raw Material/Fuel: Dust
Rated Capacity: 2.99 VMT/hr

Applicable Requirements

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

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

Emission limits are not required at this time.

Operational Limits & Requirements

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

Operational limits are not required at this time.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-650

Associated Equipment

Associated Emission Unit ID Numbers: EU-650

Emission Unit vented through this Emission Point: EU-650

Emission Unit Description: Caterpillar C15 ACERT (475 HP) Diesel Generator for
Non-emergency Air Compressor Service

Raw Material/Fuel: Diesel

Rated Capacity: 475 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.

See NSPS and NESHAP Applicability section on the following page.

Authority for Requirement: DNR Construction Permit 12-A-084

Operational Limits & Requirements

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

Operating Limits

- A. This engine is limited to burning diesel fuel oil only.
- B. This engine is limited to operating a maximum of 1000 hours in any rolling 12-month period.
- C. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for non-road diesel fuel:
 - i. a maximum sulfur content of 15 ppm (0.0015%) by weight; and
 - ii. a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.
- D. The engine shall be equipped with a non-resettable hour meter.
- E. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the manufacturer. The owner or operator may only change engine settings that are permitted by the manufacturer.

Reporting and Recordkeeping

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

- A. The owner or operator shall maintain the following monthly records:
 - i. the total number of hours that the engine operated;
 - ii. the rolling 12-month total amount of the number of hours that the engine operated.
- B. The owner or operator of the engine shall comply with the requirements of Operating Limits paragraph C. listed above by one of the following methods:
 - i. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);
 - ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
 - iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

Authority for Requirement: DNR Construction Permit 12-A-084

NSPS and NESHAP Applicability

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

According to 40 CFR 63.6590(c)(7), a new compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart IIII. No further requirements apply for this engine under Part 63.

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

This engine is subject to 40 CFR Part 60 NSPS Subpart IIII – Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines* (IAC 23.1(2)"yyy"). The engine is a non-emergency stationary internal combustion engine.

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

Pollutant	Emission Standard	Basis
Particulate Matter (PM)	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC ¹ + NO _x	4.0 grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§ 89.112 Table 1
Opacity – acceleration mode	20%	§ 89.113 (a)(1)
Opacity – lugging mode	15%	§ 89.113 (a)(2)
Opacity – peaks in acceleration or lugging modes	50%	§ 89.113 (a)(3)

¹ Non-methane hydrocarbon

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

Authority for Requirement: DNR Construction Permit 12-A-084
40 CFR Part 60 Subpart III
567 IAC 23.1(2)“yyy”

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 18

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 725.3

Exhaust Temperature (°F): 644

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 12-A-084

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-651, EP-652, EP-653, EP-654

Associated Equipment

Associated Emission Unit ID Numbers: EU-651, EU-652, EU-653, EU-654

EU	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (HP)	Construction Date
EU-651	Generac SD080 Generator	Diesel	128	11/30/1995
EU-652	Generac SD150 Generator		310	04/02/1996
EU-653	Caterpillar Fire Water Pump B		231	08/16/1995
EU-654	Caterpillar Fire Water Pump A		215	03/07/1975

All engines listed are emergency engines.

All engine listed are exempt from construction permitting since the rated capacities are less than 500 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 %

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 2.5 lb/MMBtu

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

Operational Limits & Requirements

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

Operating Limits

Process throughput:

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

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

Reporting and Recordkeeping

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

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

Authority for Requirement: 567 IAC 22.108(3)

NSPS and NESHAP Applicability

These emergency engines are subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) these compression ignition emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of Subpart ZZZZ that are applicable by May 3, 2013.

Fuel Requirements

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

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

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.

6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing, emergency demand response and periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing and emergency demand response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)
3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional information.

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-655, EP-656

Associated Equipment

Associated Emission Unit ID Numbers: EU-655, EU-656

EU	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (HP)	Construction Date
EU-655	Cummins GGPB Construction Trailer Generator	Propane	86.3	03/01/2014
EU-656	Generac SG060 South Admin Building Generator	Natural Gas	96.7	July 2015

Both engines are emergency engines.

Both engines are exempt from construction permitting since the rated capacities are less than 500 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 %

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

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

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 500 ppmv

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

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

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

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

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

NSPS Subpart JJJJ Requirements

Emission Standards:

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

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

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

⁽²⁾ Formaldehyde emissions are not included.

Compliance Demonstrations:

1. You must demonstrate compliance with the emission standards by the following method (40 CFR 60.4243(b)):
 - Purchasing a certified engine that complies with the emission standards.
2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer's written instructions must keep records of required maintenance. 40 CFR 60.4243(b)(1), 4243(a), and 4245(a)(2).
3. Owners and operators of natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, a performance test must be conducted to demonstrate compliance with the emission standards. 40 CFR 60.4243(e).
4. If you are an owner or operator of engine ≤ 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing, but you are not required to conduct subsequent performance testing unless the engine is rebuilt or undergoes major repair or maintenance. 40 CFR 60.4243(f).
5. Owners and operators of certified engines must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).

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

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

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

2. The engine may be operated for the purpose of maintenance checks and readiness testing a maximum of 100 hours/year. There is no time limit on use for emergency situations.
3. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing.
4. Owners and operators of an emergency engine must keep records of all operation of the engine. The owner must record the date and time of operation of the engine and the reason the engine was in operation.
5. Owners and operators of the following emergency SI that does not meet the applicable standards for a non-emergency engine must keep the following records. 40 CFR 60.4245(b).

Maximum Engine Power	Manufactured On Or After	Recordkeeping Requirement
25 < HP < 130	7/1/2008	Hours of operation recorded through a non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

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
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

V. Appendix

- A. 40 CFR 60 Subpart A – *General Provisions*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.a>
- B. 40 CFR 60 Subpart Dc – Standards of Performance for *Small Industrial-Commercial-Institutional Steam Generating Units*
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.d_0c
- C. 40 CFR 60 Subpart G – Standards of Performance for *Nitric Acid Plants*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.g>
- D. 40 CFR 60 Subpart Ga – Standards of Performance for *Nitric Acid Plants for which Construction, Reconstruction or Modification Commenced after October 14, 2011*
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.g_0a
- E. 40 CFR 60 Subpart IIII – Standards of Performance for *Stationary Compression Ignition Internal Combustion Engines*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.iiii>
- F. 40 CFR 60 Subpart JJJJ – Standards of Performance for *Stationary Spark Ignition Internal Combustion Engines*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.jjjj>
- G. 40 CFR 63 Subpart A – *General Provisions*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.10.63.a>
- H. 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.zzzz>
- I. 40 CFR 63 Subpart DDDDD – National Emission Standards For Hazardous Air Pollutants For *Industrial, Commercial, And Institutional Boilers And Process Heaters*
<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.ddddd>