

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

Name of Permitted Facility: United Brick and Tile
Facility Location: 1831 W. Main Street, Adel, IA 50003
Air Quality Operating Permit Number: 00-TV-009R2
Expiration Date: January 20, 2016
Permit Renewal Application Deadline: July 20, 2015

EIQ Number: 92-4678
Facility File Number: 25-02-001

Responsible Official

Name: Mr. Steven G. Gerhart
Title: Vice President of Administration & Law
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Permit Contact Person for the Facility

Name: Mr. Kurt Hansen
Title: Vice President of Production
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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

Douglas A. Campbell, 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: Unite Brick and Tile

Permit Number: 00-TV-009R2

Facility Description: Brick Manufacturer (SIC 3251)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-5	EU-5	Grinding and Screening of Clay	NA
EP-6	EU-6	Crusher for Bricks	NA
EP-7	EU-7	Haul Roads	NA
EP-8	EU-8	Storage Pile of Clay	NA
EP-9	EU-9	Tunnel Kiln to Fire Brick	00-A-654-S1
EP-10	EU-10	Dryer for Brick	00-A-655
EP-12	EU-12	Special Shapes Dryer	00-A-656
EP-14	EU-14	Conveyor	00-A-657
EP-15	EU-15	Tunnel Kiln Stack, Petcoke	05-A-890
EP-15	EU-15	Tunnel Kiln Stack, Gas	05-A-890
EP-16	EU-16	Dryer Stack	05-A-891
EP-17	EU-17	Inside Petcoke Storage Tank	None
EP-18	EU-18	Outside Petcoke Storage Tank	None
EP-19	EU-19	Conveyor for Petcoke	None

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-1(i)	Holding Room for Brick
EU-2(i)	Space Heater – Clay Storage Building (200,000 Btu/hr)
EU-3(i)	Space Heater – Stretch Wrap Building (200,000 Btu/hr)
EU-4(i)	Batt Belt – South End of Existing Plant
EU-5(i)	Batt Belt – Monorail New Plant
EU-6(i)	Batt Belt – Used to Remove Brick
EU-7(i)	Space Heater – Round Sample Room (14,000 Btu/hr)
EU-8(i)	Space Heater – Motor Shop (160,000 Btu/hr)
EU-9(i)	Space Heater – Old Sample Room (110,000 Btu/hr)
EU-10(i)	Space Heater – Sample Room (105,000 Btu/hr)
EU-11(i)	Sample Room/Restroom Water Heater (34,000 Btu/hr)
EU-12(i)	Space Heater – Men's Restroom (60,000 Btu/hr)
EU-13(i)	Space Heater – Women's Restroom (24,000 Btu/hr)
EU-14(i)	Octagon Furnace (60,000 Btu/hr)
EU-15(i)	Prior Plant Office Furnace (81,000 Btu/hr)
EU-16(i)	Sawroom Furnace (250,000 Btu/hr)
EU-17(i)	Sawroom Furnace (300,000 Btu/hr)
EU-18(i)	New Plant Office Furnace (200,000 Btu/hr)
EU-19(i)	Maintenance Shop Furnace (200,000 Btu/hr)
EU-20(i)	Diesel Fuel Tank (20,000 gallons)
EU-21(i)	Diesel Fuel Tank (20,000 gallons)
EU-22(i)	Propane Tank (30,000 gallons)
EU-23(i)	Propane Tank (18,000 gallons)
EU-24(i)	Gasoline Tank (300 gallons)

II. Plant-Wide Conditions

Facility Name: United Brick & Tile

Permit Number: 00-TV-009R2

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: January 21, 2011

Ending on: January 20, 2016

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

Emission Limits

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

Opacity (visible emissions): 40% opacity

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

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

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

Particulate Matter:

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

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

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

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

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

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

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

Compliance Plan

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

Unless otherwise noted in Section III of this permit, United Brick and Tile is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, United Brick and Tile shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

40 CFR 60 Subpart A Requirements

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

The affected unit is EP-14. Applicable requirements are incorporated in the Emission Point Specific conditions.

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

40 CFR 60 Subpart OOO Requirements

This facility is subject 40 CFR Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. The affected unit is EP-14.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart OOO
567 IAC 23.1(2)"bbb"

III. Emission Point-Specific Conditions

Facility Name: United Brick & Tile
Permit Number: 00-TV-009R2

Emission Point ID Number: EP-5

Associated Equipment

Associated Emission Unit ID Numbers: EU-5
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-5
Emission Unit Description: Grinding and Screening of Clay
Raw Material/Fuel: Clay
Rated Capacity: 100.0 ton/hr

Applicable Requirements

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

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

Pollutant:	Opacity
Emission Limit(s):	40%
Authority for Requirement:	567 IAC 23.3(2) "d"
Pollutant:	Particulate Matter (PM)
Emission Limit(s):	51.28 lb/hr ¹
Authority for Requirement:	567 IAC 23.3(2) "a"

¹ Based on a process weight rate of 100 tons/hr from Table I, using equation $E=55 \times P^{0.11}-40$, where E is the rate of emission in lb/hr and P is the process weight in tons/hr.

Operational Limits & Requirements

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

Work Practice Standards:

- All doors for the Grinding & Screening Room shall remain closed, except when in use.
Authority for Requirement: 567 IAC 22.108(14)

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-6

Associated Equipment

Associated Emission Unit ID Numbers: EU-6
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-6
Emission Unit Description: Crusher for Bricks
Raw Material/Fuel: Clay
Rated Capacity: 125.0 ton/yr

Applicable Requirements

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

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

Pollutant: Fugitive Dust
Emission Limit(s): No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.
Authority for Requirement: 567 IAC 23.3(2)"c"

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-7

Associated Equipment

Associated Emission Unit ID Numbers: EU-7
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-7
Emission Unit Description: Haul Roads
Raw Material/Fuel: Clay
Rated Capacity: 1.26 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.

Pollutant: Fugitive Dust
Emission Limit(s): No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.
Authority for Requirement: 567 IAC 23.3(2)"c"

Operational Limits & Requirements

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

The permittee shall record the date, time, and the amount of chemical or wetting dust suppression agent used to control fugitive dust emissions from the haul road.

Authority for Requirement: 567 IAC 22.108(14)

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-8

Associated Equipment

Associated Emission Unit ID Numbers: EU-8
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-8
Emission Unit Description: Storage Pile of Clay
Raw Material/Fuel: Clay
Rated Capacity: 33.96 ton/hr

Applicable Requirements

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

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

Pollutant: Fugitive Dust
Emission Limit(s): No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.
Authority for Requirement: 567 IAC 23.3(2)"c"

Monitoring Requirements

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-9

Associated Equipment

Associated Emission Unit ID Numbers: EU-9
Emissions Control Equipment ID Number: CE-9
Emissions Control Equipment Description: Hellmich Scrubber
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-9
Emission Unit Description: Tunnel Kiln to Fire Brick
Raw Material/Fuel: Clay
Rated Capacity: 14.5 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% ⁽¹⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1
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): 6.4 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1
567 IAC 23.3(2) "a"

Pollutant: Sulfur Dioxide (SO₂)
Emission Limit(s): 8.5 lb/hr; 500 ppmv
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1
567 IAC 23.3(3)

Pollutant: Hydrogen Fluoride
Emission Limit(s): 2.15 lb/hr ⁽²⁾; 9.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

Pollutant: Hydrochloric Acid
Emission Limit(s): 2.15 lb/hr ⁽²⁾; 9.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

Pollutant: Single HAP
Emission Limit(s): 2.15 lb/hr ⁽²⁾; 9.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

Pollutant: Total HAP
Emission Limit(s): 5.57 lb/hr ⁽²⁾; 24.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

⁽²⁾Total emissions from EP-9 and EP-10 combined.

Operational Limits & Requirements

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

Operating Limits

- A. The scrubber controlling emissions from this tunnel kiln shall be operated whenever bricks are being cured in the kiln.
- B. The fluorine content of the clay used in the bricks during the performance test shall be determined by laboratory analysis. Random samples of the clay storage pile shall also be analyzed for fluorine content using a method approved by the DNR. If fluorine content from these random samples is greater than that used during the initial performance test, the company shall notify the DNR. The DNR shall determine whether additional compliance tests are required based on the notification.
- C. The scrubber shall be maintained and operated according to the manufacturer's specifications.

Reporting and Recordkeeping

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

- A. Analyze and record the fluorine content of the clay used for brick production in this kiln.
- B. Record any maintenance or repairs performed on the scrubber.

Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 72
Stack Opening, (inches, dia.): 48
Exhaust Flow Rate (scfm): 19,490
Exhaust Temperature (°F): 500
Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 00-A-654-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

Stack Testing:

Pollutant – PM, HF and HCl

United Brick and Tile shall conduct one time stack testing for PM10, HF and HCl* on EP-9. The most recent compliance test shall represent emissions from EP-9. The most recent stack testing was conducted on 03/26/2002 and showed compliance.

Test Method – See the table below

Pollutant	Test Method
PM ₁₀	40 CFR 51, Appendix M, 201A with 202
HF	40 CFR 60, Appendix A, Method 26
HCl	40 CFR 60, Appendix A, Method 26

*: Test is to be performed on EP-9 and EP-10 simultaneously.

Authority for Requirement: 567 IAC 22.108 (3)

Iowa DNR Construction Permit 00-A-654-S1

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)

Agency Operation and Maintenance Plan for EP-9 - Tunnel Kiln

I. Background

A. Emissions Unit

Description: Tunnel Kiln
Identification: EU-9
Facility: United Brick and Tile
1831 W Main St., Adel, Iowa 50003

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Current Monitoring requirements: Limestone purity of $\geq 98\%$ CaCO₃
Reaction Agent Discharge Volume of 30lb/hr

C. Pressure Drop across DLA 0.7" – 1.5" WC

D. Control Technology

Hellmich Dry Limestone Adsorber (DLA)

II. Monitoring Approach

A. Indicator

Limestone purity
Reaction Agent purchase volume, discharge volume
Pressure Drop across DLA

B. Measurement Approach, Monitoring Frequency, Data collection Procedure

Monitoring for the APCD will be followed out in various ways according to the Parameter being monitored. The use of Documentation, Visual Inspection, and Weight Measurement.

Limestone Reactant Purity & Silo Levels:

Limestone that is consumed in the APCD on EP-9 Tunnel Kiln is a high purity limestone that has a minimum CaCO₃ level of 98%. The storage silo located above the cascade blocks is furnished with low level sensors that will display a fault on the monitoring screen located on the Scrubber Operating Panel. When a low level limit is met, the cascade blocks have adequate Limestone to continue operating for 5 days. At our current limestone consumption rate, a semi-truck load of limestone will be needed on an average of every 60 calendar days. When a truckload of limestone is delivered, it will have a Shipping Memo that will need to be retained as part of the documentation needed to demonstrate compliance. The Shipping Memo will indicate the Guaranteed Analysis for the shipment of limestone.

Reaction Agent Discharge Volume:

Every day the discharge will be monitored to ensure that material is being sent to waste. Every three days the container should be near the fill line and be emptied. Every 12 months the discharge quantity of reacted limestone needs to be verified and documented. This is done by collecting material for 1 hour during a normal discharge cycle. Material

that is captured will need to be weighed and the results documented on the PM form. The amount of limestone taken during this test should be greater than 30 lb. If for any reason, this amount is lower than the set amount documented during the performance test, adjustments must be made to the discharge screw.

Pressure Drop Setting:

The pressure drop across the scrubber is a parameter that is basically non-adjustable. As long as the proper amount of limestone reactant is present in the Cascade Blocks and the scrubber is not in bypass mode, the pressure drop will be at different levels based on the Fan Speed that is needed to maintain the pressure set point in the kiln.

The U Tube is hooked to the dirty air side and the clean air side of the Scrubber. This is for reference only.

C. Indicator Range

Limestone purity of 98% CaCO₃;
Reaction Agent Discharge Volume of 30lb/hr;
Pressure Drop across DLA: 0.7" – 1.5" WC.s

D. Performance Criteria

Data representativeness:

On March 26, 2002, a compliance test was performed. The follow are the operating parameters that were present at the time of the performance test and will be the parameters monitored as part of the CMS for this equipment.

Limestone purity of 98% CaCO₃;
Reaction Agent Discharge Volume of 30 lb/hr;
Pressure Drop across DLA: 0.75" – 1.5" WC.

E. Verification of operational status & QA/QC practices and criteria:

Limestone purchase, consumption, pressure drop through the reaction cascades and stack emissions will be monitored and documented according to operating procedures above.

Preventive Maintenance forms will be generated. A weekly PM form to monitor and record visual emissions and pressure drop will be completed. A monthly PM form to document material discharge will be completed. A monthly PM form to document preventive maintenance activities will be completed.

Operating Parameter Deviations:

In the event of a deviation on the operating parameters immediate action must be taken to remedy the system to be put back into its operating parameters and compliance.

Any deviations from established settings reported on these forms will be immediately reported to the plant manager. The plant manager will be responsible to direct adjustments to return the equipment to normal operation.

Bypass Mode:

The scrubber is equipped with a bypass that will route the kiln emissions around the scrubber. This mode is only used for startup, shutdown and maintenance purposes. At the 9:00 AM each day the scrubber will go into bypass mode for one minute and switch back into scrub mode. This is done to keep all of the dampers and louvers moving correctly.

If for any reason the scrubber is in bypass mode for more than 6 minutes it will shut down the kiln. This is necessary to keep the Scrubber in compliance.

If the Scrubber is out of compliance or it has to be run in bypass mode permission must be granted from the Plant Manager or designated replacement. The Chief Administrative Officer must be notified and a written notification must be submitted to the Iowa DNR. Procedures listed in the startup, shutdown & malfunction plan must be followed in the operation of the Kiln.

III. Justification**A. Background**

On March 26, 2002 a compliance test was performed. The following are the operating parameters that were present at the time of the performance test and will be parameters monitored as part of the CMS for this equipment.

Limestone purity of 98% CaCO₃;

Reaction Agent Discharge Volume of 30 lbs/hr;

Pressure Drop across DLA: 0.75" – 1.5" WC.

IV. Maintenance and Inspection:

The work assigned on this work order is taken directly from the operation and maintenance manual provided on delivery of the Scrubber from the Hellmich Company.

The record of the P.M. work is kept in the plant office. The PM work orders check and verify:

The mechanical maintenance of the scrubber.

The correct flow of limestone through the scrubber.

The pressure drop operating parameters.

The no visible emissions requirement.

Emission Point ID Number: EP-10

Associated Equipment

Associated Emission Unit ID Numbers: EU-10
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-10
Emission Unit Description: Dryer for Brick
Raw Material/Fuel: Clay
Rated Capacity: 14.5 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% ⁽¹⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-655
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): 3.0 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-655

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-655
567 IAC 23.3(2) "a"

Pollutant: Hydrogen Fluoride
Emission Limit(s): 2.15 lb/hr ⁽²⁾; 9.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-655

Pollutant: Hydrochloric Acid
Emission Limit(s): 2.15 lb/hr ⁽²⁾; 9.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-655

⁽²⁾Total emissions from EP-9 and EP-10 combined.

Pollutant: Single HAP
Emission Limit(s): 2.15 lb/hr ⁽²⁾; 9.4 ton/yr ⁽²⁾
Authority for Requirement: Iowa DNR Construction Permit 00-A-655

Pollutant: Total HAP

Emission Limit(s): 5.57 lb/hr ⁽²⁾; 24.4 ton/yr ⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 00-A-655

Operational Limits & Requirements

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

Operating Limits

A. This dryer shall be fired by natural gas or propane only.

Reporting and Recordkeeping

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

A. The owner or operator shall record the type of fuel used in the emission unit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-655

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 36

Stack Opening, (inches, dia.): 33

Exhaust Flow Rate (scfm): 59,700

Exhaust Temperature (°F): 108

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 00-A-655

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-12

Associated Equipment

Associated Emission Unit ID Numbers: EU-12
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-12
Emission Unit Description: Special Shapes Dryer
Raw Material/Fuel: Clay
Rated Capacity: 0.33 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 00-A-656
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): 0.1 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 00-A-656

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 00-A-656
567 IAC 2.33(2) "a"

Operational Limits & Requirements

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

Operating Limits

A. This dryer shall be fired by natural gas or propane only.

Reporting and Recordkeeping

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

A. The owner or operator shall record the type of fuel used in the emission unit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-656

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

- Stack Height, (ft, from the ground): 42
- Stack Opening, (inches, dia.): 36
- Exhaust Flow Rate (scfm): 16,300
- Exhaust Temperature (°F): 108
- Discharge Style: Vertical, Obstructed
- Authority for Requirement: Iowa DNR Construction Permit 00-A-656

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-14

Associated Equipment

Associated Emission Unit ID Numbers: EU-14
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-14
Emission Unit Description: Conveyor
Raw Material/Fuel: Clay
Rated Capacity: 33.96 ton/hr

Applicable Requirements

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

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

Pollutant: Fugitive Dust

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

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

Pollutant: Opacity

Emission Limit(s): 10%

Authority for Requirement: Iowa DNR Construction Permit 00-A-657

Operational Limits & Requirements

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

NSPS Requirements:

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

Authority for Requirement: 40 CFR 60.11(c)

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

Authority for Requirement: 40 CFR 60.11(d)

NSPS and NESHAP Applicability

This emission unit is subject to NSPS Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants and Subpart A – General Provisions.

Authority for Requirement: Iowa DNR Construction Permit 00-A-657

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): NA

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Closed Conveyor – Fugitive Only

Authority for Requirement: Iowa DNR Construction Permit 00-A-657

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

Opacity Monitoring:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

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

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-15

Associated Equipment

Associated Emission Unit ID Numbers: EU-15

Emissions Control Equipment ID Number: CE-15

Emissions Control Equipment Description: Hellmich Dry Scrubber/Baghouse

Continuous Emissions Monitors ID Numbers: None

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

EP=Emission Point, EU=Emission Unit

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-15	EU-15	Tunnel Kiln Stack, Petcoke	Clay, Petcoke Usage	11.47 ton/hr
	EU-15	Tunnel Kiln Stack, Gas	Clay, Gas Usage	4.94 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 4.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

Pollutant: Particulate Matter (PM) (Federal)

Emission Limit(s): 0.12 lb/ton⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

⁽¹⁾Units of standard are in pounds per ton of fired product and apply to all process streams from the kiln.

Pollutant: Particulate Matter (PM) (State)

Emission Limit(s): 4.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

Pollutant: Sulfur Dioxide (SO₂)

Emission Limit(s): 57.0 lb/hr; 6.0 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 05-A-890
567 IAC 23.3(3) "a" (3)

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 7.58 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 15.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

Pollutant: Hydrogen Chloride

Emission Limit(s): 0.056 lb/ton ^{(1), (2)}

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

⁽²⁾ NESHAP allows for an alternative limit of a minimum reduction of 85% of uncontrolled HCl emissions.

Pollutant: Hydrogen Fluoride

Emission Limit(s): 0.057 lb/ton ^{(1), (3)}

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

⁽³⁾ NESHAP allows for an alternative limit of a minimum reduction of 90% of uncontrolled HF emissions.

Operational Limits & Requirements

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

Operating Limits

- A. The sulfur content of the petroleum coke burned in this unit shall not exceed 6% by weight as received.
- B. The heat content of the petroleum coke burned in this unit shall be a minimum of 14,000 BTU/lb as received.
- C. The lime feed hopper or silo and the DIFF feed system shall be maintained free flowing at all times.
- D. The lime feeder system setting shall be maintained at or above the level established during the performance testing.
- E. Operation of the Swindell and Allied Kilns (EP-1 and EP-3) * and the Swindell and Allied Dryers (EP-2 and EP-4) ** shall cease no later than 6 months after the beginning of operation of this unit.

** : These units have been retired from service.

Reporting and Recordkeeping

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

- A. For each fuel shipment received, maintain a copy of the vendor's fuel analysis showing the sulfur content of the petroleum coke as received.
- B. For each fuel shipment received, maintain a copy of the vendor's fuel analysis showing the heat content of the petroleum coke as received.
- C. Install a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to verify that the lime feed hopper or silo and the DIFF feed system is free flowing. Record all monitor or sensor output from this monitoring system.
- D. Record the lime feeder system setting once during each shift of operation.
- E. Notification must be submitted to the Department within 30 days of the shutdown of EP-1 through EP-4* .

* : These units have been retired from service.

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

NSPS and NESHAP Applicability

EP-15 was the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing (567 IAC 23.1(4)"dj", 40 CFR Part 63, Subpart JJJJ).

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

As of April 15, 2009, the adoption by reference of Part 63, Subpart JJJJ, is rescinded. On June 18, 2007, the United States Court of Appeals for the District of Columbia Circuit issued its mandate vacating 40 CFR Part 63, Subpart JJJJ, in its entirety, and requiring EPA to repromulgate final standards for brick and structural clay products manufacturing at new and existing major sources.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 72

Stack Opening, (inches, dia.): 55

Exhaust Flow Rate (scfm): 29,500

Exhaust Temperature (°F): 360

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

Stack Testing: please see the table below

Pollutant	Testing Required	Test Run Time	Test Method
PM (Federal)	Yes ¹	2 hours	40 CFR 60, Appendix A, Method 5
PM ₁₀	Yes	2 hours	40 CFR 51, Appendix M, 201A with 202
SO ₂	Yes ²	1 hour	40 CFR 60, Appendix A, Method 6C
Hydrogen Chloride	Yes ¹	TBD	40 CFR 60, Appendix A, Method 26A
Hydrogen Fluoride	Yes ¹	TBD	40 CFR 60, Appendix A, Method 26A

¹. HCl, HF, and PM testing is required at least once every 5 years following the initial performance test or any time you want to change the parameter value for any operating limit specified in your OM&M plan.

². Testing for SO₂ shall be conducted concurrently with each HCl/HF test to insure that any changes in DIFF system operating parameters as a result of the HCl/HF test will not result in a violation of the applicable SO₂ standard.

Authority for Requirement – Iowa DNR Construction Permit 05-A-890

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan for United Brick and Tile EU-15 Tunnel Kiln

I. Background

A. Emissions Unit

Description: Tunnel Kiln
Identification: EU-15
Facility: United Brick and Tile
1831 W. Main St. Adel, Iowa 50003

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: Construction Permit: 05-A-890
Particulate emission limit: 0.12 lb/ton PM, 4.0 lb/hr PM-10
Emission Limit: 57.0 lb/hr Sulfur Dioxide
Opacity emission limit: 0%
Current Monitoring requirements: Five year stack testing, differential pressure readings, checks for visual emissions, hydrated limestone feed monitoring.

C. Control Technology

Hellmich DIFF (Dry Injection Fabric Filter)

II. Monitoring Approach

A. Indicator

Differential Pressure across the filter.
Fresh lime screw feeder operation.
Exhaust opacity observation.

B. Measurement Approach

The computer will continually monitor and record the differential pressure across the scrubber filter.
The computer will continually monitor and record the speed of the fresh lime screw feeder.
Weekly checks to verify no visible emissions will be made.

C. Indicator Range

Pressure drop will be controlled to ensure that no pressure drop will be less than the normal operating range of the unit. Pressure drop of less than 100mm could indicate a failure of the filter.
Feed rate will be controlled to ensure proper hydrated limestone flow. Feed rate will be set no lower than 384 lbs/hr while kiln is running at capacity.
An opacity limit of no visual emissions has been established.

D. QIP (Quality Improvement Plan) Threshold

The selected QIP threshold for the scrubber is 6 excursions in a 6-month reporting period. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

E. Performance Criteria

Data representativeness: The differential pressure is measured across the baghouse. Visible emissions observations are made at the emission point. Lime flow is observed at the fresh lime screw feeder observation window. Flow rates are reported in the recorder.

Verification of operational status: Computer records of differential pressure and fresh lime screw feed rates will be maintained for five years. Manual checks of opacity and lime flow will be maintained for five years.

QA/QC practices and criteria: The facility operators will be notified by alarm if the pressure drop is outside the correct working range of the unit or if the fresh lime screw feeder fails. Manual verification of lime flow and stack opacity are taken daily and immediately reported to plant management if a malfunction exists. Corrective action will be taken within 8 hours.

Monitoring frequency and data Collection procedure: Pressure drop readings shall be conducted continuously when the emission unit is in operation. Verification there are no visual emissions is monitored weekly. Fresh lime screw feeder is monitored continuously. Fresh lime flow verification is monitored daily. Records of all readings shall be maintained for five years.

III. Justification

A. Background

This facility produces brick by firing in a kiln. The pollutant specific emission unit is a dry injection scrubber with baghouse that controls emissions of the kiln. The controlled exhaust flow rate is approximately 29,500 standard cubic feet per minute.

On October 10, 2008 a compliance test was performed. The following are the operating parameters that were present at the time of the performance test and will be monitored as part of the CMS for this equipment.

Reaction Agent purity of 96% Ca(OH)₂;

Reaction Agent volume of 384 lb/hr when kiln was at full rate;

Pressure drop across baghouse 100-160mm WC.

B. Rationale for Selection of Performance Indicator

The pressure drop readings were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. A pressure drop below the normal operating range would indicate a reduced performance of the baghouse. Therefore, the detection of excessive pressure drop is used as a performance indicator.

The proper feed rate of hydrated limestone is critical to the operation of the unit. The computer continuously monitors this flow and records this flow and daily visual checks ensure it is flowing freely.

The proper purity of hydrated limestone is necessary to meet the standard.

C. Rationale for Selection of Indicator Level

The change in pressure drop noted above was selected as indicator because a pressure drop less than this value (100 mm of water column) is indicative of a potential increase in particulate emissions due to a decrease in the performance of this baghouse. If the baghouse is operating properly, there will not be a pressure drop less than 100mm of water except during start up, shut down, and upset conditions. If the pressure drop falls below 100 mm of water column, corrective action will be taken within 8 hours.

The flow rate of fresh hydrated limestone will be based on kiln push rates and will equal no less than 300 lbs per hour of operation when the kiln is running at full tonnage rate. For every 10% reduction in kiln tonnage the hydrated limestone flow rate will be reduced by no more than 10%. The hydrated limestone flow will be continuously monitored and recorded by the computer, and these records will be maintained for a minimum of 5 years.

The hydrated limestone will be assured of meeting the 96.0% purity by receipt of a laboratory test report with each load received from the supplier.

Bypass Mode:

The scrubber is equipped with a bypass that will route the kiln emissions around the scrubber. This mode is only used for startup, shutdown and maintenance purposes.

At the beginning of each day, the scrubber will go into bypass mode for no more than one minute and switch back into scrub mode. This is done to keep all of the dampers and louvers moving correctly.

If for any reason the scrubber is in Bypass mode for more than 6 minutes, the computer is programmed to shut down the kiln. This is necessary to keep the Scrubber in compliance.

If the scrubber is out of compliance or it has to be run in bypass mode permission must be granted from the Plant Manager or designated replacement. The Chief Administrative Officer must be notified and a written notification must be submitted to the Iowa DNR.

Visual Emissions:

The scrubber stack is monitored once a week for visual emissions. If emissions are seen during this monitoring, then additional monitoring must be completed. Check with the kiln operator to see if the Kiln may have been in a shutdown or startup sequence. Check if the scrubber is in bypass mode. Notify the kiln supervisor and a complete check of the scrubber will need to be completed.

Emission Point ID Number: EP-16

Associated Equipment

Associated Emission Unit ID Numbers: EU-16
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-16
Emission Unit Description: Dryer
Raw Material/Fuel: Clay
Rated Capacity: 16.36 ton/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% ⁽¹⁾

Authority for Requirement: Iowa DNR Construction Permit 05-A-891
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): 3.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

Pollutant: Particulate Matter (PM) (Federal)

Emission Limit(s): 0.12 lb/ton ⁽²⁾

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

⁽²⁾Units of standard are in pounds per ton of fired product and apply to all process streams from the kiln.

Pollutant: Particulate Matter (PM) (State)

Emission Limit(s): 3.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

Pollutant: Nitrogen Oxides (NO_x)

Emission Limit(s): 1.60 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 5.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

Pollutant: Hydrogen Chloride

Emission Limit(s): 0.056 lb/ton^{(2), (3)}

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

⁽³⁾NESHAP allows for an alternative limit of a minimum reduction of 85% of uncontrolled HCl emissions.

Pollutant: Hydrogen Fluoride

Emission Limit(s): 0.057 lb/ton^{(2), (4)}

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

⁽⁴⁾NESHAP allows for an alternative limit of a minimum reduction of 90% of uncontrolled HF emissions.

Operational Limits & Requirements

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

Operational limits are not required at this time.

NSPS and NESHAP Applicability

The gas line that comes from the tunnel kiln to the dryer was the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing (567 IAC 23.1(4)"dj", 40 CFR Part 63, Subpart JJJJ).

Authority for Requirement: Iowa DNR Construction Permit 05-A-890

As of April 15, 2009, the adoption by reference of Part 63, Subpart JJJJJ, is rescinded. On June 18, 2007, the United States Court of Appeals for the District of Columbia Circuit issued its mandate vacating 40 CFR Part 63, Subpart JJJJJ, in its entirety, and requiring EPA to promulgate final standards for brick and structural clay products manufacturing at new and existing major sources.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 30

Stack Opening, (inches, dia.): 75

Exhaust Flow Rate (scfm): 59,700

Exhaust Temperature (°F): 95

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-891

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

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

Stack Testing:

Pollutant – PM (Federal), Hydrogen Chloride and Hydrogen Fluoride

Test Method: Please see the table below:

Pollutant	Testing Required	Test Run Time	Test Method
PM (Federal)	Yes ¹	2 hours	40 CFR 60, Appendix A, Method 5
Hydrogen Chloride	Yes ¹	TBD	40 CFR 60, Appendix A, Method 26A
Hydrogen Fluoride	Yes ¹	TBD	40 CFR 60, Appendix A, Method 26A

¹ HCl, HF, and PM testing is required at least once every 5 years following the initial performance test or any time you want to change the parameter value for any operating limit specified in your OM&M plan.

Authority for Requirement – Iowa DNR Construction Permit 05-A-891

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-17

Associated Equipment

Associated Emission Unit ID Numbers: EU-17
Emissions Control Equipment ID Number: CE-17
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-17
Emission Unit Description: Inside Petcoke Storage Tank
Raw Material/Fuel: Petcoke
Rated Capacity: 7,000.0 m³/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2) "d"
Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2) "a"

Operational Limits & Requirements

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

Operational limits are not requires 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

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-18

Associated Equipment

Associated Emission Unit ID Numbers: EU-18
Emissions Control Equipment ID Number: CE-18
Emissions Control Equipment Description: Baghouse
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-18
Emission Unit Description: Outside Petcoke Storage Tank
Raw Material/Fuel: Petcoke
Rated Capacity: 7,000.0 m³/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.

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"

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

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

The data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-19

Associated Equipment

Associated Emission Unit ID Numbers: EU-19
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: None
Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-19
Emission Unit Description: Conveyor for Petcoke
Raw Material/Fuel: Petcoke
Rated Capacity: 0.71 ton/hr

Applicable Requirements

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

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

Pollutant: Fugitive Dust
Emission Limit(s): Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.
Authority for Requirement: 567 IAC 23.3(2)"c"

Operational Limits & Requirements

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

Operational limits are not required at this time.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)3

IV. General Conditions

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

G1. Duty to Comply

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

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. 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 reation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

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

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

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

G8. Duty to Provide Information

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

G9. General Maintenance and Repair Duties

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

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

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:

- a. The date, place and time of sampling or measurements
- b. The date the analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses; and
- f. The operating conditions as existing at the time of sampling or measurement.
- g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)

2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

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

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

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

- a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
- b. Compliance test methods specified in 567 Chapter 25; or
- c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

- a. Any monitoring or testing methods provided in these rules; or
- b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

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

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

G13. Hazardous Release

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

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

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

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

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

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

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

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

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

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

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

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

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
 - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
 - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
 - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
 - d. The changes are not subject to any requirement under Title IV of the Act.
 - e. The changes comply with all applicable requirements.
 - f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
 - i. A brief description of the change within the permitted facility,
 - ii. The date on which the change will occur,
 - iii. Any change in emission as a result of that change,
 - iv. The pollutants emitted subject to the emissions trade
 - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
 - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
 - vii. Any permit term or condition no longer applicable as a result of the change.
2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

- a. An administrative permit amendment is a permit revision that is required to do any of the following:
 - i. Correct typographical errors;
 - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - iii. Require more frequent monitoring or reporting by the permittee; or
 - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
- b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

- a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:
 - i. Do not violate any applicable requirements
 - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.
 - iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.
 - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;
 - v. Are not modifications under any provision of Title I of the Act; and
 - vi. Are not required to be processed as significant modification.
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
 - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.
 - ii. The permittee's suggested draft permit
 - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

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

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

G20. Asbestos

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

G21. Open Burning

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

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedances of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the

owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. 567 IAC 22.108(7)

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

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

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

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

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

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

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

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

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

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

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

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

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

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

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
 - a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
 - b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
 - c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*
3. A permit shall be reopened and revised under any of the following circumstances:
 - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
 - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
 - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
 - d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
 - e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*
4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
 - a. Such applicable requirements are included and are specifically identified in the permit; or
 - b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
3. A permit shield shall not alter or affect the following:
 - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
 - d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

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

G27. Property Rights

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

G28. Transferability

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

G29. Disclaimer

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

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

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The

department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

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

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

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

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

G31. Prevention of Air Pollution Emergency Episodes

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

567 IAC 26.1(1)

G32. Contacts List

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

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(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 Hightes, IA 50324
(515) 242-5100

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

Field Office 1

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

Field Office 3

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

Field Office 5

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

Polk County Public Works Dept.

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

Field Office 2

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

Field Office 4

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

Field Office 6

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

Linn County Public Health Dept.

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

V. Appendices

- A. 40 CFR 60 Subpart A – General Provisions

<http://www.tceq.state.tx.us/permitting/air/rules/federal/63/a/ahp.html>

- B. 40 CFR 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants

<http://www.tceq.state.tx.us/permitting/air/rules/federal/60/ooo/ooohp.html>