

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

**Name of Permitted Facility: Cedar Rapids WPCF**

**Facility Location: 7525 Bertram Road SE, Cedar Rapids, IA 52403**

**Air Quality Operating Permit Number: 05-TV-001-M001**

**Expiration Date: February 9, 2010**

**EIQ Number: 92-9044**

**Facility File Number: 57-01-077**

---

**Responsible Official**

**Name: Patrick Ball**

**Title: Director, Cedar Rapids WPCF**

**Mailing Address: 7525 Bertram Road SE, Cedar Rapids, IA 52403**

**Phone #: (319) 286-5282**

**Permit Contact Person for the Facility**

**Name: Stephen L. Hershner**

**Title: Environmental Manager**

**Mailing Address: 7525 Bertram Road SE, Cedar Rapids, IA 52403**

**Phone #: (319) 286-5281**

---

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

# Table of Contents

<b>I. Facility Description and Equipment List .....</b>	<b>4</b>
<b>II. Plant - Wide Conditions.....</b>	<b>6</b>
<b>III. Emission Point Specific Conditions .....</b>	<b>9</b>
<b>IV. General Conditions.....</b>	<b>51</b>
G1. Duty to Comply	
G2. Permit Expiration	
G3. Certification Requirement for Title V Related Documents	
G4. Annual Compliance Certification	
G5. Semi-Annual Monitoring Report	
G6. Annual Fee	
G7. Inspection of Premises, Records, Equipment, Methods and Discharges	
G8. Duty to Provide Information	
G9. General Maintenance and Repair Duties	
G10. Recordkeeping Requirements for Compliance Monitoring	
G11. Evidence used in establishing that a violation has or is occurring.	
G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification	
G13. Hazardous Release	
G14. Excess Emissions and Excess Emissions Reporting Requirements	
G15. Permit Deviation Reporting Requirements	
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations	
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification	
G18. Duty to Modify a Title V Permit	
G19. Duty to Obtain Construction Permits	
G20. Asbestos	
G21. Open Burning	
G22. Acid Rain (Title IV) Emissions Allowances	
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements	
G24. Permit Reopenings	
G25. Permit Shield	
G26. Severability	
G27. Property Rights	
G28. Transferability	
G29. Disclaimer	
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification	
G31. Prevention of Air Pollution Emergency Episodes	
G32. Contacts List	

## Abbreviations

acfm.....	actual cubic feet per minute
CAS.....	Carbonaceous Activated Sludge
CFR.....	Code of Federal Regulation
CE.....	control equipment
CEM.....	continuous emission monitor
DAF.....	dissolved air flotation
°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
MCC.....	Main Control Center
ML.....	Main Lift
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NAS.....	Nitrification Activated Sludge
NSPS.....	new source performance standard
ppmv.....	parts per million by volume
lb./hr.....	pounds per hour
lb./MMBtu.....	pounds per million British thermal units
SCC.....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC.....	Standard Industrial Classification
TPY.....	tons per year
USEPA.....	United States Environmental Protection Agency
WPCF.....	Water Pollution Control Facility

### Pollutants

PM.....	particulate matter
PM <sub>10</sub> .....	particulate matter ten microns or less in diameter
SO <sub>2</sub> .....	sulfur dioxide
NO <sub>x</sub> .....	nitrogen oxides
VOC.....	volatile organic compound
CO.....	carbon monoxide
HAP.....	hazardous air pollutant

# I. Facility Description and Equipment List

Facility Name: Cedar Rapids Water Pollution Control Facility

Permit Number: 05-TV-001-M001

Facility Description: Sewage Treatment Plant (SIC 4952)

---

## Equipment List

---

Emission Point Number	Emission Unit Number	Emission Unit Description	LCPH ATI / PTO Numbers
001	001-1	Carbon Scrubber	4532 / 4753
003	003-1	Main Lift Carbon Scrubber – West Stack	4714 / 4754
013	013-1	Sludge Incinerator Solid Waste Disposal	3857 / 0
013	013-1B	Sludge Incinerator Bio-Gas Combustion	3857 / 0
013	013-1O	Sludge Incinerator Fuel Oil Combustion	3857 / 0
014	014-1	Multiple Hearth Incinerator Emergency Bypass	4459 / 4516
017	017-1	Auxiliary Boiler #1	3320 / 3218
019	019-1	Packed Tower Odor Control Scrubber	4533 / 4842
021	021-1	Alkaline Stabilization Lime Silo #1	3901 / 3935
022	022-1	Alkaline Stabilization Lime Silo #2	3902 / 3936
034	034-1	CAS/NAS Limestone Silo – North	1313 / 1040
036	036-1	Standby Generator (Main Lift)	1946 / 1912
037	037-1	Standby Generator (Solids)	1945 / 1913
040	040-1	Standby Generator (#3N – Final Lift)	2782 / 2772
041	041-1	Standby Generator (#7S – Final Lift)	2781 / 2773
053	053-1	Excess Bio-Gas Flare	3858 / 4683
054	053-1	Excess Bio-Gas Flare	4462 / 4515

---

## Insignificant Activities Equipment List

---

Insignificant Emission Unit Number	Insignificant Emission Unit Description
002-1 <sup>(1)</sup>	Main Lift Carbon Scrubber (LCPH ATI 0 / PTO 2195)
018-1 <sup>(1)</sup>	Vacuum Filter Hoods (Scrubber #1) (LCPH ATI 822 / PTO 1032)
031-1 <sup>(1)</sup>	A Thickener – Emergency Vent (LCPH ATI 1177 / PTO 1033)
032-1 <sup>(1)</sup>	B Thickener – Emergency Vent (LCPH ATI 0 / PTO 2194)
033-1 <sup>(1)</sup>	C Thickener – Emergency Vent (LCPH ATI 0 / PTO 2197)
055-1 <sup>(1)</sup>	Anaerobic Bioreactor (LCPH ATI 4702 / PTO 0)
203-1 <sup>(1)</sup>	Bio-scrubber #1 (LCPH ATI 3671 / PTO 3704)
203-2 <sup>(1)</sup>	Bio-scrubber #2 (LCPH ATI 3672 / PTO 3705)
100-1 <sup>(1)</sup>	Incinerator Fuel Oil Tank (LCPH ATI 3794 / PTO 3694)
104-1 <sup>(1)</sup>	Diesel Tank (Main Lift) (LCPH ATI 3771 / PTO 3695)
105-1 <sup>(1)</sup>	Diesel Tank (Solids) (LCPH ATI 3772 / PTO 3696)
106-1 <sup>(1)</sup>	3N and 7S Diesel Storage Tank (LCPH ATI 3773 / PTO 3697)
203-1	Roughing Filters 1 and 4
203-2	Roughing Filters 2 and 3
204-1	Space Heaters – Incineration Building (2)
206-1	Space Heaters – Solids Pump Building (2)
207-1	Air Makeup Units (6)

---

<sup>(1)</sup> The construction permit associated with this emission unit does not contain any specific terms or conditions, therefore it qualifies as an insignificant activity per rule 567 IAC 22.103.

## II. Plant-Wide Conditions

Facility Name: Cedar Rapids WPCF

Permit Number: 05-TV-001-M001

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

---

### Permit Duration

The term of this permit is: less than 5 years

Commencing on: February 10, 2005

Ending on: February 9, 2010

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): 20% opacity

Authority for Requirement: LCO 10.7

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume

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

LCO 10.12(2)

Particulate Matter (state enforceable only)<sup>2</sup>:

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" (as revised 7/21/1999)

Particulate Matter<sup>3</sup>:

---

<sup>2</sup> Pending approval into Iowa's State Implementation Plan (SIP), paragraph 567 IAC 23.3(2)"a" (as revised 7/21/1999) is considered *state enforceable only*.

The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Particulate Matter: No person shall permit, cause, suffer or allow the emission of particulate matter into the atmosphere in any one hour from any emission point from any process equipment at a rate in excess of that specified in Table I for the process weight rate allocated to such emission point. The emission standards in LCO 10.9 (1)"a" shall apply and those specified in LCO 10.8 and 10.9 and Table I shall not apply to each process of the types listed in those sections, with the following exception: whenever the compliance status, history of operations, ambient air quality in the vicinity, or the type of control equipment utilized, would warrant maximum control, the Air Pollution Control Officer may enforce 0.1 grain per standard cubic foot of exhaust gas, or Table I of this section, whichever would result in the lowest allowable emission rate.

Authority for Requirement: LCO 10.9(1)

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.

---

<sup>3</sup> Paragraph 567 IAC 23.3(2)"a" (prior to 7/21/1999) is the general particulate matter emission standard currently in the Iowa SIP.

Authority for Requirement: 567 IAC 23.3(2)"c"  
LCO 10.13

---

### **Regulatory Authority**

This facility is located in Linn County, Iowa. Linn County Public Health Department, under agreement with the Iowa Department of Natural Resources (IDNR), is the primary regulatory agency in Linn County. This Title V permit is issued by the Iowa Department of Natural Resources, however, required contacts and information submittals referred to in this permit as required by "the Department" should continue to be directed to the Linn County Public Health Department office. This will include such items as stack test notification, stack test results submittal, oral and written excess emission reports, and reports and records required in the Linn County construction permits. Information specifically required by the Title V permit such as the annual EIQ and fees, annual compliance certification, semi-annual monitoring report and any Title V forms submitted for updates, modifications, renewals, etc. must be submitted to the Iowa DNR.

Authority for Requirement: 567 IAC 22.108

---

### **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, Cedar Rapids WPCF 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, Cedar Rapids WPCF shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

### III. Emission Point-Specific Conditions

Facility Name: Cedar Rapids WPCF

Permit Number: 05-TV-001-M001

---

#### **Emission Point ID Number: 001**

##### Associated Equipment

Associated Emission Unit ID Numbers: 001-1

Emissions Control Equipment ID Number: 001-1

Emissions Control Equipment Description: Carbon Scrubber

---

Emission Unit vented through this Emission Point: 001-1

Emission Unit Description: Carbon Scrubber

Raw Material/Fuel: Air

Rated Capacity: 0.54 MMCF/hr

#### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4532 / PTO 4753

Pollutant: Hydrogen Sulfide

Emission Limit(s): 2.15 lb/hr, 9.4 tpy\*

Authority for Requirement: LCPH ATI 4532 / PTO 4753

\*Considered a stand alone project. Potential to emit of 5.21 tpy for hydrogen sulfide (based on a potential to emit of 25 ppm after control). This is a combined emission allowable for emission points 1 and 3.

##### **Operational Limits & Requirements**

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

##### **Control Device:**

A carbon scrubber shall be used to control H<sub>2</sub>S emissions. The control equipment shall be maintained properly and operated at all times while the air pollution source is in operation.

Authority for Requirement: LCPH ATI 4532 / PTO 4753

##### **NSPS and NESHAP Applicability:**

New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants do not apply to this source at this time.

Authority for Requirement: LCPH ATI 4532 / PTO 4753

**Operating Limits:**

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

- Scrubber shall be maintained per manufacturer's specifications

Authority for Requirement: LCPH ATI 4532 / PTO 4753

**Operating Condition Monitoring and Record keeping:**

A log of operation shall be maintained for the operation of the above listed unit.

- Records of all maintenance and repair completed on the control device
- 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 4532 / PTO 4753

**Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 13'8"

Discharge Style: Vertical

Stack Opening (inches, diameter): 24

Exhaust Temperature (°F): 55-80°F

Exhaust Flowrate (acfm): 4500

Authority for Requirement: LCPH ATI 4532 / PTO 4753

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 is not required at this time.

**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: 003**

### Associated Equipment

Associated Emission Unit ID Numbers: 003-1

Emissions Control Equipment ID Number: 003-1

Emissions Control Equipment Description: Carbon Scrubber

---

Emission Unit vented through this Emission Point: 003-1

Emission Unit Description: Main Lift Carbon Scrubber – West Stack

Raw Material/Fuel: Air

Rated Capacity: 0.54 MMCF/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4714 / PTO 4754

Pollutant: Hydrogen Sulfide

Emission Limit(s): 2.15 lb/hr, 9.4 tpy\*

Authority for Requirement: LCPH ATI 4714 / PTO 4754

\*Considered a stand alone project. Potential to emit of 5.21 tpy for hydrogen sulfide (based on a potential to emit of 25 ppm after control). This is a combined emission allowable for emission points 1 and 3.

#### **Operational Limits & Requirements**

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

#### **Control Device:**

A carbon scrubber shall be used to control H<sub>2</sub>S emissions. The control equipment shall be maintained properly and operated at all times while the air pollution source is in operation.

Authority for Requirement: LCPH ATI 4714 / PTO 0

#### **NSPS and NESHAP Applicability:**

New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants do not apply to this source at this time.

Authority for Requirement: LCPH ATI 4714 / PTO 4754

#### **Operating Limits:**

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

- Scrubber shall be maintained per manufacturer's specifications

Authority for Requirement: LCPH ATI 4714 / PTO 4754

**Operating Condition Monitoring and Record keeping:**

A log of operation shall be maintained for the operation of the above listed unit.

- Records of all maintenance and repair completed on the control device

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 4714 / PTO 4754

**Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 13'6"

Discharge Style: Vertical, obstructed

Stack Opening (inches, diameter): 24

Exhaust Temperature (°F): 55-80°F

Exhaust Flowrate (acfm): 4500

Authority for Requirement: LCPH ATI 4714 / PTO 4754

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 is not required at this time.

**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: 013****Associated Equipment**

Associated Emission Unit ID Numbers: 013-1

Emissions Control Equipment: 013-1

Emissions Control Equipment Description: Venturi / Impingement Scrubber System; Paques Thiopaq Biogas Sulfur Scrubber

---

Emission Unit vented through this Emission Point: 013-1

Emission Unit Description: Sludge Incinerator Solid Waste Disposal

Raw Material/Fuel: Sludge, Natural Gas

Rated Capacity: 3.92 tons/hr

Emission Unit vented through this Emission Point: 013-1B

Emission Unit Description: Sludge Incinerator Bio-Gas Combustion

Raw Material/Fuel: Sludge, Bio-Gas

Rated Capacity: 3.92 ton/hr

Emission Unit vented through this Emission Point: 013-1O

Emission Unit Description: Sludge Incinerator Fuel Oil Combustion

Raw Material/Fuel: Sludge, Fuel Oil

Rated Capacity: 3.92 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 Limits: 20 %

Authority for Requirement: LCPH ATI 3857 / PTO 0

LCO 10.7

40 CFR 60.152(a)"2" Subpart O

Pollutant: PM-10

Emission Limit(s): 0.75 lb/ton dry sludge input

Authority for Requirement: LCPH ATI 3857 / PTO 0

Pollutant: Particulate Matter

Emission Limit(s): 0.75 lb/ton dry sludge input

Authority for Requirement: LCPH ATI 3857 / PTO 0

40 CFR 60.152(a)(1) Subpart O

40 CFR 60.153(d) Subpart O

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 0.60 lb/hr, 2.64 tpy  
Authority for Requirement: LCPH ATI 3857 / PTO 0

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: LCPH ATI 3857 / PTO 0  
567 IAC 23.3(3)"e"  
LCO 10.12(2)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 1.5 lb/MMBtu when burning liquid fuel  
Authority for Requirement: LCPH ATI 3857 / PTO 0  
LCO 10.12(1)"b"

Pollutant: Beryllium  
Emission Limit(s): 10 grams per 24-hour period.  
Authority for Requirement: LCPH ATI 3857 / PTO 0  
40 CFR 61.32(a) Subpart C

Pollutant: Mercury  
Emission Limit(s): 3.2 kg per 24-hour period.  
Authority for Requirement: LCPH ATI 3857 / PTO 0  
40 CFR 61.52(b) Subpart E

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 100 ppmv<sup>(1)</sup>  
Authority for Requirement: 40 CFR 503.40(c ) (1-3) Subpart E

<sup>(1)</sup> Parts per million on a volumetric basis, monthly average concentration, corrected for zero percent moisture and to seven percent oxygen.

**Emissions from the biogas fuel alternative project (EP #013, #053, #054) shall not exceed the following:**

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 3857 / PTO 0

Pollutant: Nitrogen Oxide (NO<sub>x</sub>)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 3857 / PTO 0

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 3857 / PTO 0

**Operational Limits & Requirements**

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

**NSPS and NESHAP Applicability:**

This unit is subject to the following standards:

- 40 CFR 60, Subpart O – Standards of Performance for Sewage Treatment Plants.
- 40 CFR 503, Subpart E – Incineration.
- 40 CFR 61, Subpart C – National Emission Standard for Beryllium.
- 40 CFR 61, Subpart E – National Emission Standard for Mercury.
- 40 CFR 60, Subpart A – General Provisions
- 40 CFR 61, Subpart A – General Provisions

Authority for Requirement: LCPH ATI 3857 / PTO 0

**Control Devices:**

A sulfur scrubber is located upstream of the incinerator to remove 99% of the hydrogen sulfide (H<sub>2</sub>S) content from the bio-gas and hence reduce SO<sub>2</sub> emissions during incineration.

A wet scrubber shall be used to control particulate emissions generated by the sludge incinerator.

The Venturi / impingement scrubber system shall be maintained properly and operated at all times sewage sludge is being fed to the multiple hearth incinerator. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 3857 / PTO 0

**Operating Limits:**

- The sulfur scrubber shall maintain effective removal efficiency for H<sub>2</sub>S at a level no less than 99% at all times during operation. The content of H<sub>2</sub>S in the biogas shall be determined upstream and downstream of the sulfur scrubber in order to calculate the scrubber efficiency. Appropriate grab samples shall be collected at a minimum of 3 days a week and analyzed by a gas chromatograph or by using the Tutweiler Method in order to make these determinations.
- On occurrences where the sulfur scrubber efficiency is determined to be less than 99%, daily efficiency determinations shall be made and emissions calculated until an efficiency of 99% is maintained, except on weekends and holidays. On weekends and holidays, efficiency determinations and emissions shall be calculated on the next business day and daily thereafter during business days until an efficiency of 99% is maintained.
- During periods that the sulfur scrubber and/or associated equipment is taken offline for maintenance and/or repair, all biogas shall be directed through the flare. The incinerator shall not be allowed to burn unscrubbed biogas.
- Fuel for this unit shall be limited to biogas, natural gas, or fuel oil.

Authority for Requirement: LCPH ATI 3857 / PTO 0

**Operating Condition Monitoring and Recordkeeping:**

The following information shall be monitored and recorded:

- Total monthly calculated biogas production based on a 12-month rolling sum
- Daily biogas flow rate to the incinerator
- Monthly SO<sub>2</sub> emissions for the incinerator calculated on a 12-month rolling sum
- Calculated removal efficiency of the sulfur scrubber
- H<sub>2</sub>S content of bio-gas prior to the sulfur scrubber measured by the Tutweiler Method.
- H<sub>2</sub>S content of bio-gas after the sulfur scrubber measured by the Tutweiler Method for H<sub>2</sub>S concentrations greater than 100 parts per million (ppm)
- H<sub>2</sub>S content of bio-gas after sulfur scrubber measured by GC analysis for H<sub>2</sub>S concentrations less than 100 parts per million (ppm)
- Continuous recording of carbon monoxide concentration in the exit gas of the incinerator
- Continuous recording of oxygen concentration in exit gas of the incinerator
- Continuous recording of pressure drop through Venturi / impingement scrubbing system
- Continuous recording of pH of the sulfur scrubber liquor to regulate the NaOH make-up feed rates to the sulfur scrubber.
- Daily water flow reading to the incinerator wet scrubber (gallons per minute)
- Daily liquid flow through the sulfur scrubber (gallons per minute)
- Record of all maintenance and repair completed to the Venturi / impingement scrubber system
- Record of all maintenance and repair completed to the sulfur scrubber

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 3857 / PTO 0

### **Report Requirements:**

- Submit a semi-annual report on March 31<sup>st</sup> and September 30<sup>th</sup> of each year summarizing the SO<sub>2</sub> emissions generated from the combustion of biogas in the incinerator and biogas production overall.
- Submit a semi-annual report as required in 40 CFR 60.155, Subpart O on March 31<sup>st</sup> and September 30<sup>th</sup> of each year.

Authority for Requirement: LCPH ATI 3857 / PTO 0

### **Monitoring of operations:**

(a.) Cedar Rapids WPCF shall:

- (1) Install, calibrate, maintain and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
- (2) Provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained.

(b.) Cedar Rapids WPCF shall:

- (1) For incinerators equipped with a wet scrubbing device, install, calibrate, maintain and operate a monitoring device that continuously measures and records the pressure drop of the gas flow through the wet scrubbing device. Where a combination of wet scrubbers is used in series, the pressure drop of the gas flow through the combined system shall be continuously

monitored. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within  $\pm 250$  pascals ( $\pm 1$  inch water gauge) and shall be calibrated on an annual basis in accordance with the manufacturer's instructions.

- (2) Install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the incinerator exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of  $\pm 5$  percent over its operating range and shall be calibrated according to method(s) prescribed by the manufacturer at least once each 24-hour operating period.
  - (3) Install, calibrate, maintain and operate temperature measuring devices at every hearth in multiple hearth furnaces. For multiple hearth furnaces, a minimum of one temperature measuring device shall be installed in each hearth in the cooling and drying zones, and a minimum of two temperature measuring devices shall be installed in each hearth in the combustion zone. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
  - (4) Install, calibrate, maintain and operate a device for measuring the fuel flow to the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
- (c.) Cedar Rapids WPCF shall retain the following information and make it available for inspection by the Administrator for a minimum of two years:
- (1) For incinerators equipped with a wet scrubbing device, a record of the measured pressure drop of the gas flow through the wet scrubbing device.
  - (2) A record of the measured oxygen content of the incinerator exhaust gas.

Authority for Requirement: 40 CFR 60.153 Subpart O

### **Reporting:**

CRWPCF shall submit to the Administrator semi-annually on March 31 and September 30 a report in writing which contains:

- (1) A record of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than, by a percentage specified below, the average scrubber pressure drop measured during the most recent performance test. The percent reduction in scrubber pressure drop for which a report is required shall be determined as follows:
  - (i) For incinerators that achieved an average particulate matter emission rate of 0.38 kg/Mg (0.75 lb/ton) dry sludge input or less during the most recent performance test, a scrubber pressure drop reduction of more than 30 percent from the average scrubber pressure drop recorded during the most recent performance test shall be reported.
- (2) A record of average oxygen content in the incinerator exhaust gas for each period of 1-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the most recent performance test by more than 3 percent.

Authority for Requirement: 40 CFR 60.155 Subpart O

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (feet, from ground): 52.5  
Discharge Style: Vertical, unobstructed  
Stack Opening (inches, diameter): 62.5  
Exhaust Temperature (°F): 122  
Exhaust Flowrate (acfm): 61,558  
Authority for Requirement: LCPH ATI 3857 / PTO 0

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

### **Monitoring Requirements**

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

#### **Stack Testing:**

Pollutant – Particulate Matter

1st Stack Test to be Completed by – by 60 days after full production, but no later than 180 days after startup

Test Method – Iowa Compliance Sampling Manual Method 5

Authority for Requirement – LCPH ATI 3857 / PTO 0  
567 IAC 22.108(3)

Pollutant – Nitrogen Oxides (NO<sub>x</sub>)

1<sup>st</sup> Stack Test to be Completed by – February 10, 2007

Test Method – Method 7E (40 CFR 60) or approved alternative

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Carbon Monoxide (CO)

1<sup>st</sup> Stack Test to be Completed by – February 10, 2007

Test Method – Method 10 (40 CFR 60) or approved alternative

Authority for Requirement – 567 IAC 22.108(3)

*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).*

**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. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. 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.

Authority for Requirement: 567 IAC 22.108(13)

**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.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and 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: 014**

### Associated Equipment

Associated Emission Unit ID Numbers: 014-1

---

Emission Unit vented through this Emission Point: 014-1

Emission Unit Description: Multiple Hearth Incinerator Emergency By-Pass

Raw Material/Fuel: Sludge/Fuel

Rated Capacity: 0.00 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4459 / PTO 4516  
LCO 10.7

#### **Operational Limits & Requirements**

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

#### **Excess Emissions:**

All emissions from this source shall be considered excess emissions except for by-pass events that occur during startup and/or shutdown. The owner or operator shall report any emissions as required by this rule.

Authority for Requirement: LCPH ATI 4459 / PTO 4516  
LCO 10.14

#### **NSPS and NESHAP Applicability:**

This emission point is not subject to any New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants because it is an emergency by-pass damper.

The multiple hearth incinerator is subject to the following:

- 40 CFR 60, Subpart O – Standards of Performance for Sewage Treatment Plants
- 40 CFR 503, Subpart E – Incineration
- 40 CFR 61, Subpart C – National Emission Standard for Beryllium
- 40 CFR 61, Subpart E – National Emission Standard for Mercury
- 40 CFR 60, Subpart A – General Provisions
- 40 CFR 61, Subpart A – General Provisions

Authority for Requirement: LCPH ATI 4459 / PTO 4516

#### **Operating Condition Monitoring and Record keeping:**

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. These records shall show the following:

- Record all emergency bypass periods for the multiple hearth incinerator, except for those excess emissions caused by startup or shutdown of the incinerator, including the date, time, and duration of the bypass, the cause of the bypass use, and a description of the product run at the time of the bypass.

Authority for Requirement: LCPH ATI 4459 / PTO 4516  
40 CFR 60.7(b)

### **Report Requirements:**

The following information shall be submitted to this department:

- Submit excess emissions and monitoring systems performance report and/or summary report form (40 CFR 60.7(d) Figure 1) to this Department semiannually. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each six-month period. Written reports of excess emissions shall include the following information (40 CFR 60.7(c)).
  1. The magnitude of excess emissions, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
  2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
  3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
  4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

Authority for Requirement: LCPH ATI 4459 / PTO 4516  
40 CFR 60.7

### **Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 80

Discharge Style: Vertical

Stack Opening (inches, diameter): 12

Exhaust Temperature (°F): 1200

Exhaust Flowrate (acfm): NA

Authority for Requirement: LCPH ATI 4459 / PTO 4516

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 is not required at this time.

Opacity monitoring is not required at this time.

**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: 017**

### Associated Equipment

Associated Emission Unit ID Numbers: 017-1

---

Emission Unit vented through this Emission Point: 017-1

Emission Unit Description: Auxiliary Boiler #1

Raw Material/Fuel: Natural Gas

Rated Capacity: 0.02 MMCF/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 3320 / PTO 3218  
LCO 10.7

Pollutant: PM-10

Emission Limit(s): 0.25 tpy

Authority for Requirement: LCPH ATI 3320 / PTO 3218

Pollutant: Particulate Matter

Emission Limit(s): 0.6 lb/MMBtu

Authority for Requirement: LCO 10.8(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 0.05 tpy

Authority for Requirement: LCPH ATI 3320 / PTO 3218

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"  
LCO 10.12(2)

Pollutant: Nitrogen Oxide (NO<sub>x</sub>)

Emission Limit(s): 11.65 tpy

Authority for Requirement: LCPH ATI 3320 / PTO 3218

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.23 tpy

Authority for Requirement: LCPH ATI 3320 / PTO 3218

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 2.91 tpy  
Authority for Requirement: LCPH ATI 3320 / PTO 3218

**Monitoring Requirements**

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

Stack testing is not required at this time.

**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. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. 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.

Authority for Requirement: 567 IAC 22.108(13)

**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: 019**

### Associated Equipment

Associated Emission Unit ID Numbers: 019-1

Emissions Control Equipment ID Number: 019-1

Emissions Control Equipment Description: Packed Tower Chemical Scrubber

---

Emission Unit vented through this Emission Point: 019-1

Emission Unit Description: Packed Tower Odor Control Scrubber

Raw Material/Fuel: Air

Rated Capacity: 2.7 MMCF/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4533 / PTO 4842  
LCO 10.7

Pollutant: Hydrogen Sulfide (H<sub>2</sub>S)

Emission Limit(s): 2.15 lb/hr, 9.4 tpy\*

Authority for Requirement: LCPH ATI 4533 / PTO 4842

\*Considered a stand-alone project. Potential to emit of 1.04 tpy of hydrogen sulfide (based on potential to emit of 1 ppmv after control.)

#### **Operational Limits & Requirements**

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

#### **Control Device:**

A packed tower chemical scrubber shall be used to control H<sub>2</sub>S emissions. The control equipment shall be maintained properly and operated at all times while the air pollution source is in operation.

Authority for Requirement: LCPH ATI 4533 / PTO 4842

#### **NSPS and NESHAP Applicability:**

- New Source Performance Standards do not apply to this source at this time.
- National Emission Standards for Hazardous Air Pollutants do not apply to this source at this time.

Authority for Requirement: LCPH ATI 4533 / PTO 4842

#### **Operating Limits:**

- The scrubber shall be maintained per manufacturer's specifications
- pH of the scrubber shall not exceed 10.5

Authority for Requirement: LCPH ATI 4533 / PTO 4842

**Operating Condition Monitoring and Recordkeeping:**

- Record scrubber water recirculation rate on a weekly basis
- Record scrubber pH on a weekly basis
- Record all maintenance and repair completed on the control device

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 4533 / PTO 4842

**Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 75

Discharge Style: Vertical, unobstructed

Stack Opening(inches, diameter): 54"

Exhaust Temperature (°F): 40-150°F

Exhaust Flowrate (acfm): 45,000

Authority for Requirement: LCPH ATI 4533 / PTO 4842

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 is not required at this time.

**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: 021**

### Associated Equipment

Associated Emission Unit ID Numbers: 021-1  
Emissions Control Equipment ID Number: 021-1  
Emissions Control Equipment Description: Baghouse

---

Emission Unit vented through this Emission Point: 021-1  
Emission Unit Description: Alkaline Stabilization Lime Silo #1  
Raw Material/Fuel: Lime  
Rated Capacity: 3.38 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 3901 / PTO 3935  
LCO 10.7

Pollutant: PM-10  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 3901 / PTO 3935

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 3901 / PTO 3935  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

#### **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control equipment shall be maintained on this source in a good operating condition at all times.  
Authority for Requirement: LCPH ATI 3901 / PTO 3935

#### **Operating Condition Monitoring and Recordkeeping:**

A log of operation shall be maintained for the operation of the above listed unit.

- Opacity observations each time the silo is filled (non-CFR reference Method 9)\*
- Records of all maintenance and repair completed on the control device

\* Any visible opacity at any time during the operation of this baghouse should be considered an indication of a possible emission rate exceedance. During such an occurrence, prompt investigation and corrective action should be taken.

All records as required for this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 3901 / PTO 3935

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 41.5'

Discharge Style: Downward

Stack Opening (inches, diameter): 14" x 24"

Exhaust Temperature (°F): Ambient

Exhaust Flowrate (acfm): 763

Authority for Requirement: LCPH ATI 3901 / PTO 3935

The temperature and flow rate are intended to be representative and characteristics 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 is not required at this time.

#### **Opacity Monitoring:**

The facility shall check the opacity each time the silo is filled and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. 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.

Authority for Requirement: 567 IAC 22.108(13)

**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: 022**

### Associated Equipment

Associated Emission Unit ID Numbers: 022-1  
Emissions Control Equipment ID Number: 022-1  
Emissions Control Equipment Description: Baghouse

---

Emission Unit vented through this Emission Point: 022-1  
Emission Unit Description: Alkaline Stabilization Lime Silo #2  
Raw Material/Fuel: Lime  
Rated Capacity: 3.38 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 3902 / PTO 3936  
LCO 10.7

Pollutant: PM-10  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 3902 / PTO 3936

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 3902 / PTO 3936  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

#### **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control equipment shall be maintained on this source in a good operating condition at all times.  
Authority for Requirement: LCPH ATI 3902 / PTO 3936

#### **Operating Condition Monitoring and Recordkeeping:**

A log of operation shall be maintained for the operation of the above listed unit.

- Opacity observations each time the silo is filled (non-CFR reference Method 9)\*
- Records of all maintenance and repair completed on the control device

\* Any visible opacity at any time during the operation of this baghouse should be considered an indication of a possible emission rate exceedance. During such an occurrence, prompt investigation and corrective action should be taken.

All records as required for this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 3902 / PTO 3936

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 41.5'

Discharge Style: Downward

Stack Opening (inches, diameter): 14" x 24"

Exhaust Temperature (°F): Ambient

Exhaust Flowrate (acfm): 763

Authority for Requirement: LCPH ATI 3902 / PTO 3936

The temperature and flow rate are intended to be representative and characteristics 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 is not required at this time.

#### **Opacity Monitoring:**

The facility shall check the opacity each time the silo is filled and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. 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.

Authority for Requirement: 567 IAC 22.108(13)

**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: 034**

### Associated Equipment

Associated Emission Unit ID Numbers: 034-1  
Emissions Control Equipment ID Number: 034-1  
Emissions Control Equipment Description: Baghouse

---

Emission Unit vented through this Emission Point: 034-1  
Emission Unit Description: CAS / NAS Lime Silo (North)  
Raw Material/Fuel: Lime  
Rated Capacity: 25 ton/hr

### Applicable Requirements

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCO 10.7

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: 567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

#### Monitoring Requirements

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

The facility shall check the opacity each time the silo is filled and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions.

If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. 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.

Authority for Requirement: 567 IAC 22.108(13)

**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: 036**

### Associated Equipment

Associated Emission Unit ID Numbers: 036-1

---

Emission Unit vented through this Emission Point: 036-1  
Emission Unit Description: Standby Generator (Main Lift)  
Raw Material/Fuel: Diesel Fuel  
Rated Capacity: 120 gallon/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 1946 / PTO 1912  
LCO 10.7

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 1946 / PTO 1912  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 1.5 lb/MMBtu  
Authority for Requirement: LCPH ATI 1946 / PTO 1912  
LCO 10.12(1)

#### **Operational Limits & Requirements**

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

#### **Operating Limits:**

- A. This source shall be limited to 700 hours of operation per year calculated on a 12-month rolling total.
  - B. Fuel use in this unit shall be either #1 or #2 grade diesel fuel only with a maximum concentration of 0.5% sulfur by weight.
- Authority for Requirement: LCPH ATI 1946 / PTO 1912

#### **Operating Condition Monitoring and Recordkeeping:**

The following records shall be maintained:

- A. Total hours of engine operation per year calculated on a 12-month rolling total
- B. Type of fuel burned and sulfur concentration by weight

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 1946 / PTO 1912

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 12.5

Discharge Style: Horizontal, Unobstructed

Stack Opening (inches, diameter): 18

Exhaust Temperature (°F): 904

Exhaust Flowrate (scfm): 5413

Authority for Requirement: LCPH ATI 1946 / PTO 1912

The temperature and flow rates 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 is not required at this time.

Opacity monitoring is not required at this time.

**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: 037**

### Associated Equipment

Associated Emission Unit ID Numbers: 037-1

---

Emission Unit vented through this Emission Point: 037-1

Emission Unit Description: Standby Generator (Solids)

Raw Material/Fuel: Diesel Fuel

Rated Capacity: 120 gallons/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 1945 / PTO 1913  
LCO 10.7

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: LCPH ATI 1945 / PTO 1913  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 1.5 lb/MMBtu

Authority for Requirement: LCPH ATI 1945 / PTO 1913  
LCO 10.12(1)

#### **Operational Limits & Requirements**

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

#### **Operating Limits:**

A. This source shall be limited to 700 hours of operation per year calculated on a 12-month rolling total.

B. Fuel use in this unit shall be either #1 or #2 grade diesel fuel only with a maximum concentration of 0.5% sulfur by weight.

Authority for Requirement: LCPH ATI 1945 / PTO 1913

#### **Operating Condition Monitoring and Recordkeeping:**

The following records shall be maintained:

A. Total hours of engine operation per year calculated on a 12-month rolling total

B. Type of fuel burned and sulfur concentration by weight

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 1945 / PTO 1913

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 12.5

Discharge Style: Horizontal, Unobstructed

Stack Opening (inches, diameter): 18

Exhaust Temperature (°F): 904

Exhaust Flowrate (scfm): 5413

Authority for Requirement: LCPH ATI 1945 / PTO 1913

The temperature and flow rates 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 is not required at this time.

Opacity monitoring is not required at this time.

**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: 040**

### Associated Equipment

Associated Emission Unit ID Numbers: 040-1

---

Emission Unit vented through this Emission Point: 040-1  
Emission Unit Description: Standby Generator (#3N Final Lift)  
Raw Material/Fuel: Diesel Fuel  
Rated Capacity: 120 gallons/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 2782 / PTO 2772  
LCO 10.7

Pollutant: PM-10  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 2782 / PTO 2772

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 2782 / PTO 2772  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 1.5 lb/MMBtu  
Authority for Requirement: LCPH ATI 2782 / PTO 2772  
LCO 10.12(1)

#### **Operational Limits & Requirements**

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

#### **Operating Limits:**

- Total hours of operation for Generator #3N shall not exceed 700 hr/yr on a 12-month rolling basis.
- Fuel use shall be limited to #1 or #2 grade diesel fuel with a maximum concentration of 0.2% sulfur by weight.

Authority for Requirement: LCPH ATI 2782 / PTO 2772

#### **Operating Condition Monitoring and Recordkeeping:**

The following information shall be monitored and recorded:

- Total hours of engine operation per month.
- Type of fuel consumed and the sulfur content of that fuel.

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 2782 / PTO 2772

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 36'

Discharge Style: Vertical, unobstructed

Stack Opening (inches, diameter): 14"

Exhaust Temperature (°F): 961

Exhaust Flowrate (acfm): 14,310

Authority for Requirement: LCPH ATI 2782 / PTO 2772

The temperature and flow rate are intended to be representative and characteristics 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 is not required at this time.

Opacity monitoring is not required at this time.

**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: 041**

### Associated Equipment

Associated Emission Unit ID Numbers: 041-1

---

Emission Unit vented through this Emission Point: 041-1  
Emission Unit Description: Standby Generator (#7S Final Lift)  
Raw Material/Fuel: Diesel Fuel  
Rated Capacity: 120 gallons/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 2781 / PTO 2773  
LCO 10.7

Pollutant: PM-10  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 2781 / PTO 2773

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: LCPH ATI 2781 / PTO 2773  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 1.5 lb/MMBtu  
Authority for Requirement: LCPH ATI 2781 / PTO 2773  
LCO 10.12(1)

#### **Operational Limits & Requirements**

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

#### **Operating Limits:**

- Total hours of operation for Generator #7S shall not exceed 700 hr/yr on a 12-month rolling basis.
- Fuel use shall be limited to #1 or #2 grade diesel fuel with a maximum concentration of 0.2% sulfur by weight.

Authority for Requirement: LCPH ATI 2781 / PTO 2773

#### **Operating Condition Monitoring and Recordkeeping:**

The following information shall be monitored and recorded:

- Total hours of engine operation per month.
- Type of fuel consumed and the sulfur content of that fuel.

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 2781 / PTO 2773

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 36'

Discharge Style: Vertical, unobstructed

Stack Opening (inches, diameter): 14"

Exhaust Temperature (°F): 961

Exhaust Flowrate (acfm): 14,310

Authority for Requirement: LCPH ATI 2781 / PTO 2773

The temperature and flow rate are intended to be representative and characteristics 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 is not required at this time.

Opacity monitoring is not required at this time.

**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: 053**

### Associated Equipment

Associated Emission Unit ID Numbers: 053-1  
Emissions Control Equipment ID Number: 053-1  
Emissions Control Equipment Description: Pacques Thiopaq Sulfur Scrubber

---

Emission Unit vented through this Emission Point: 053-1  
Emission Unit Description: Excess Bio-gas Flare #1  
Raw Material/Fuel: Methane  
Rated Capacity: 0.07 MMCF/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 3858 / PTO 4683  
LCO 10.7

Pollutant: PM-10  
Emission Limit(s): 0.1 gr/dscf, 0.42 lb/hr  
Authority for Requirement: LCPH ATI 3858 / PTO 4683

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf, 0.42 lb/hr  
Authority for Requirement: LCPH ATI 3858 / PTO 4683  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: LCPH ATI 3858 / PTO 4683  
567 IAC 23.3(3)"e"  
LCO 10.12(2)

**Total emissions from the biogas fuel alternative project (EP #013, #053, and #054) shall not exceed the following:**

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 3858 / PTO 4683  
Pollutant: Nitrogen Oxide (NO<sub>x</sub>)

Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 3858 / PTO 4683

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 3858 / PTO 4683

### **Operational Limits & Requirements**

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

#### **Control Devices:**

A sulfur scrubber has been installed upstream of the flare to remove 99% of the hydrogen sulfide (H<sub>2</sub>S) content from the bio-gas and hence reduce SO<sub>2</sub> emissions during incineration. The sulfur scrubber shall be maintained in a good operating condition at all times. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 3858 / PTO 4683

#### **NSPS and NESHAP Applicability:**

- This emission unit is not subject to the New Source Performance Standards (NSPS).
- This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: LCPH ATI 3858 / PTO 4683

#### **Operating Limits:**

- A. The sulfur scrubber shall maintain effective removal efficiency for H<sub>2</sub>S at a level no less than 99% at all times during operation. The content of H<sub>2</sub>S in the bio-gas shall be determined upstream and downstream of the sulfur scrubber in order to calculate the scrubber efficiency. Appropriate grab samples shall be collected at a minimum of 3 days a week and analyzed by gas chromatograph (GC) or by using the Tutweiler Method in order to make these determinations.
- B. On occurrences where the sulfur scrubber efficiency is determined to be less than 99%, daily efficiency determination shall be made and emissions calculated until an efficiency of 99% is maintained, except on weekends and holidays. On weekends and holidays, efficiency determinations and emissions shall be calculated on the next business day and daily thereafter during business days until an efficiency of 99% is maintained.
- C. During periods that the sulfur scrubber and/or associated equipment is taken offline for maintenance and/or repair, all unscrubbed bio-gas shall be directed through the flares. The H<sub>2</sub>S content of the bio-gas shall be determined on a daily basis and SO<sub>2</sub> emissions calculated. Due to employee safety considerations during bio-gas sample collection, H<sub>2</sub>S content of unscrubbed bio-gas shall be assumed to be monthly average unscrubbed H<sub>2</sub>S content. SO<sub>2</sub> emissions would be calculated daily based on the monthly average unscrubbed H<sub>2</sub>S content.
- D. Inlet scrubber H<sub>2</sub>S concentration not to exceed 2% on a twelve-month rolling average.
- E. Fuel for this unit shall be limited to bio-gas and/or natural gas.

Authority for Requirement: LCPH ATI 3858 / PTO 4683

**Operating Condition Monitoring and Recordkeeping:**

The following information shall be monitored and recorded:

- A. Daily bio-gas flow rate to flare
- B. Total monthly bio-gas production based on a twelve-month rolling sum
- C. H<sub>2</sub>S content of bio-gas prior to the sulfur scrubber measured by the Tutweiler Method
- D. H<sub>2</sub>S content of bio-gas after the sulfur scrubber measured by the Tutweiler Method for H<sub>2</sub>S concentrations greater than 100 parts per million
- E. H<sub>2</sub>S content of bio-gas after sulfur scrubber measured by GC analysis for H<sub>2</sub>S concentrations less than 100 parts per million
- F. H<sub>2</sub>S content of inlet gas based on a twelve-month rolling average
- G. Sulfur scrubber efficiency determinations
- H. Daily liquor feed rate through sulfur scrubber in gallons per minute
- I. Continuous recording of pH of the sulfur scrubber liquor to regulate the NaOH make-up feed rates to the scrubber.
- J. Monthly SO<sub>2</sub> emissions generated for the flare calculated on a twelve-month rolling sum.
- K. Record of all maintenance and/or repair completed on the control device

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 3858 / PTO 4683

**Reporting Requirements:**

The following information shall be submitted to this department on a semi-annual basis:

- Submit a semi-annual report on March 31<sup>st</sup> and September 30<sup>th</sup> of each year summarizing the SO<sub>2</sub> emissions generated from the combustion of bio-gas through the flare and the incinerator.
- Submit written report summarizing the occurrences where the sulfur scrubber was taken offline for maintenance/repair. Include date, time duration, reason for repair, summary of chemical control options if used, bio-gas production rate, and associated SO<sub>2</sub> emissions.

Authority for Requirement: LCPH ATI 3858 / PTO 4683

**Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 25

Discharge Style: Vertical

Stack Opening (inches, diameter): NA

Exhaust Temperature (°F): 1000+

Exhaust Flowrate (acfm): 1345

Authority for Requirement: LCPH ATI 3858 / PTO 4683

The temperature and flow rates 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 is not required at this time.

Opacity monitoring is not required at this time.

**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.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and 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: 054**

### Associated Equipment

Associated Emission Unit ID Numbers: 054-1  
Emissions Control Equipment ID Number: 053-1  
Emissions Control Equipment Description: Pacques Thiopaq Sulfur Scrubber

---

Emission Unit vented through this Emission Point: 053-1  
Emission Unit Description: Excess Biogas Flare #2  
Raw Material/Fuel: Methane  
Rated Capacity: 0.07 MMCF/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 20%  
Authority for Requirement: LCPH ATI 4462 / PTO 4515

Pollutant: PM-10  
Emission Limit(s): 0.1 gr/dscf, 0.42 lb/hr  
Authority for Requirement: LCPH ATI 4462 / PTO 4515

Pollutant: Particulate Matter  
Emission Limit(s): 0.1 gr/dscf, 0.42 lb/hr  
Authority for Requirement: LCPH ATI 4462 / PTO 4515  
567 IAC 23.3(2)"a"(2)  
LCO 10.9(1)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: LCPH ATI 4462 / PTO 4515  
567 IAC 23.3(3)"e"  
LCO 10.12(2)

**Total emissions from the biogas fuel alternative project (EP #013, #053, and #054) shall not exceed the following:**

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 4462 / PTO 4515

Pollutant: Nitrogen Oxide (NO<sub>x</sub>)

Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 4462 / PTO 4515

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 9.0 lb/hr, 39.4 tpy  
Authority for Requirement: LCPH ATI 4462 / PTO 4515

### **Operational Limits & Requirements**

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

#### **Control Device:**

A sulfur scrubber has been installed upstream of the flare to remove 99% of the hydrogen sulfide (H<sub>2</sub>S) content from the bio-gas and hence reduce SO<sub>2</sub> emissions during incineration. The sulfur scrubber shall be maintained in a good operating condition at all times. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4462 / PTO 4515

#### **NSPS and NESHAP Applicability:**

- This emission unit is not subject to the New Source Performance Standards (NSPS).
- This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: LCPH ATI 4462 / PTO 4515

#### **Operating Limits:**

- A. The sulfur scrubber shall maintain effective removal efficiency for H<sub>2</sub>S at a level no less than 99% at all times during operation. The content of H<sub>2</sub>S in the bio-gas shall be determined upstream and downstream of the sulfur scrubber in order to calculate the scrubber efficiency. Appropriate grab samples shall be collected at a minimum of 3 days a week and analyzed by gas chromatograph (GC) or by using the Tutweiler Method in order to make these determinations.
- B. On occurrences where the sulfur scrubber efficiency is determined to be less than 99%, daily efficiency determinations shall be made and emissions calculated until an efficiency of 99% is maintained, except on weekends and holidays. On weekends and holidays, efficiency determinations and emissions shall be calculated on the next business day and daily thereafter during business days until an efficiency of 99% is maintained.
- C. During periods that the sulfur scrubber and/or associated equipment is taken offline for maintenance and/or repair, all unscrubbed bio-gas shall be directed through the flares. The H<sub>2</sub>S content of the bio-gas shall be determined on a daily basis and SO<sub>2</sub> emissions calculated. Due to employee safety considerations during bio-gas sample collection, H<sub>2</sub>S content of unscrubbed bio-gas shall be assumed to be the monthly average unscrubbed H<sub>2</sub>S content. SO<sub>2</sub> emissions would be calculated daily based on the monthly average unscrubbed H<sub>2</sub>S content.
- D. Inlet scrubber H<sub>2</sub>S concentration not to exceed 2% on a twelve-month rolling average.
- E. Fuel for this unit shall be limited to bio-gas and/or natural gas.

Authority for Requirement: LCPH ATI 4462 / PTO 4515

**Operating Condition Monitoring and Recordkeeping:**

The following information shall be monitored and recorded:

- A. Daily bio-gas flow rate to flare
- B. Total monthly bio-gas production based on a twelve-month rolling sum
- C. H<sub>2</sub>S content of bio-gas prior to the sulfur scrubber measured by the Tutweiler Method
- D. H<sub>2</sub>S content of bio-gas after the sulfur scrubber measured by the Tutweiler Method for H<sub>2</sub>S concentrations greater than 100 parts per million
- E. H<sub>2</sub>S content of bio-gas after the sulfur scrubber measured by GC analysis for H<sub>2</sub>S concentrations less than 100 ppm
- F. H<sub>2</sub>S content of inlet gas based on a twelve-month rolling average
- G. Sulfur scrubber efficiency determinations
- H. Daily liquor feed rate through sulfur scrubber in gallons per minute
- I. Continuous recording of pH of the sulfur scrubber liquor to regulate the NaOH make-up feed rates to the scrubber.
- J. Monthly SO<sub>2</sub> emissions generated for the flare calculated on a twelve-month rolling sum.
- K. Record of all maintenance and/or repair completed on the control device

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 4462 / PTO 4515

**Reporting Requirements:**

The following information shall be submitted to this department on a semi-annual basis:

- Submit a semi-annual report on March 31<sup>st</sup> and September 30<sup>th</sup> of each year summarizing the SO<sub>2</sub> emissions generated from the combustion of biogas through the flare and the incinerator.
- Submit written report summarizing the occurrences where the sulfur scrubber was taken offline for maintenance/repair. Include date, time duration, reason for repair, summary of chemical control options if used, bio-gas production rate, and associated SO<sub>2</sub> emissions.

Authority for Requirement: LCPH ATI 4462 / PTO 4515

**Emission Point Characteristics**

*This emission point shall conform to the specifications listed below.*

Stack Height (ft, from ground): 25

Discharge Style: Vertical

Stack Opening (inches, diameter): NA

Exhaust Temperature (°F): 1000+

Exhaust Flowrate (acfm): 1345

Authority for Requirement: LCPH ATI 4462 / PTO 4515

The temperature and flow rates 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 is not required at this time.

Opacity monitoring is not required at this time.

**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.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

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

Authority for Requirement: 567 IAC 22.108(3)

## **IV. General Conditions**

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

### **G1. Duty to Comply**

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

### **G2. Permit Expiration**

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, 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 revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

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

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

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

### **G8. Duty to Provide Information**

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

### **G9. General Maintenance and Repair Duties**

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

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

### **G10. Recordkeeping Requirements for Compliance Monitoring**

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

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

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

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

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

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

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

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

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

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

**G13. Hazardous Release**

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

**G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control

measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

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

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

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

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

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

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

#### **G15. Permit Deviation Reporting Requirements**

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

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

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

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

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed

- therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act.
- e. The changes comply with all applicable requirements.
- f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
- i. A brief description of the change within the permitted facility,
  - ii. The date on which the change will occur,
  - iii. Any change in emission as a result of that change,
  - iv. The pollutants emitted subject to the emissions trade
  - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
  - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
  - vii. Any permit term or condition no longer applicable as a result of the change.
- 567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

**G18. Duty to Modify a Title V Permit**

1. Administrative Amendment.

- a. An administrative permit amendment is a permit revision that is required to do any of the following:
- i. Correct typographical errors
  - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
  - iii. Require more frequent monitoring or reporting by the permittee; or
  - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new permittee has been submitted to the director.

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

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

## 2. Minor Permit Modification.

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

- i. Do not violate any applicable requirements
- ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.
- iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.
- iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;
- v. Are not modifications under any provision of Title I of the Act; and
- vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

- i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.
- ii. The permittee's suggested draft permit
- iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and
- iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

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

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

#### **G19. Duty to Obtain Construction Permits**

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

#### **G20. Asbestos**

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

#### **G21. Open Burning**

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

#### **G22. Acid Rain (Title IV) Emissions Allowances**

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

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

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

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
- Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - 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.
  - Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - 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)
  - Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - 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**

- 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"*
- 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.
  - Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
  - 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 June 25, 1993.

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 June 25, 1993, 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 an applicable requirement. 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  
Urbandale, IA 50322  
(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. 5<sup>th</sup> 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*  
*Urbandale, IA 50322*  
*(515) 242-5100*

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

#### **Field Office 1**

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

#### **Field Office 2**

P.O. Box 1443  
2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

#### **Field Office 3**

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

#### **Field Office 4**

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

#### **Field Office 5**

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

#### **Field Office 6**

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

#### **Polk County Public Works Dept.**

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

#### **Linn County Public Health Dept.**

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