

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

**Name of Permitted Facility: Central Iowa Renewable Energy  
(CORN), LP**

**Facility Location: 1303 Highway 3 East, Goldfield, IA 50542**

**Air Quality Operating Permit Number: 10-TV-004-M003**

**Expiration Date: June 22, 2015**

**Permit Renewal Application Deadline: December 22, 2014**

**EIQ Number: 92-3132**

**Facility File Number: 99-05-003**

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**Responsible Official**

**Name: Brad Davis**

**Title: General Manager**

**Mailing Address: 1303 Highway 3 East, P.O. Box 280, Goldfield, IA 50542**

**Phone #: (515) 825-3161**

**Permit Contact Person for the Facility**

**Name: Jennifer Etheredge**

**Title: Process Manager**

**Mailing Address: 1303 Highway 3 East, P.O. Box 280, Goldfield, IA 50542**

**Phone #: (515) 825-3933**

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

**For the Director of the Department of Natural Resources**

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Lori Hanson, Supervisor of Air Operating Permits Section

Date

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- H. 40 CFR 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources

## Abbreviations

acfm.....	actual cubic feet per minute
CFR.....	Code of Federal Regulation
CE .....	control equipment
CEM.....	continuous emission monitor
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP.....	emission point
EU .....	emission unit
gr./dscf .....	grains per dry standard cubic foot
gr./100 cf.....	grains per one hundred cubic feet
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS.....	new source performance standard
NESHAP .....	National Emission Standards for Hazardous Air Pollutants
ppmv .....	parts per million by volume
lb./hr .....	pounds per hour
lb./MMBtu .....	pounds per million British thermal units
SCC.....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC .....	Standard Industrial Classification
TPY.....	tons per year
USEPA.....	United States Environmental Protection Agency

## Pollutants

PM.....	particulate matter
PM <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: Central Iowa Renewable Energy (CORN), LP  
 Permit Number: 10-TV-004-M003

Facility Description: Ethanol Fuel Production (SIC 2869)

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## Equipment List

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<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
EP-S10	EU-P10	Bubbling Fluid Bed Coal Combustor	05-A-125-S8
EP-S16	EU-P16	Sand Storage Bin	05-A-098-S4
EP-S18	EU-P18	Open Pile; Grain Storage Silo #1&2 Baghouse	05-A-099-S4
EP-S20	EU-P20	Grain Unloading	05-A-100-S6
EP-S30	EU-P30	Hammermill Feed	05-A-101-S4
EP-S40	EU-P40	Fermentation Scrubber	05-A-109-S4
EP-S50	EU-P50, P100	Truck Loadout Flare	05-A-113-S3
EP-S60	EU-P60	Methanator #1&2	05-A-123-S2
EP-S61	EU-T61	Denatured Ethanol Storage Tank #1	05-A-102-S4
EP-S62	EU-T62	Denatured Ethanol Storage Tank #2	05-A-103-S4
EP-S63	EU-T63	200 Proof Ethanol Storage Tank	05-A-104-S3
EP-S64	EU-T64	Denaturant Storage Tank	05-A-105-S3
EP-S65	EU-T65	190 Proof Ethanol Storage Tank	05-A-106-S3
EP-S66	EU-T66	Additive Storage Tank	05-A-107-S2
EP-S70	EU-P70	DDGS Cooler	05-A-115-S4
EP-S80	EU-P80	Cooling Tower	05-A-112-S3
EP-S90	EU-P90	DDGS Loadout	05-A-116-S5
EP-S110	EP-P110	300 hp Fire Pump	05-A-111-S2
EP-S120	EU-P120	Flyash Storage & Handling	05-A-122-S6
EP-S130	EU-P130	Coal Storage & Handling	05-A-118-S5
EP-S140	EU-P140	Lime/Limestone Storage & Handling	05-A-117-S5
EP-S150	EU-P150	Coal/Limestone Receiving& Ash Loading	05-A-124-S4
EP-F81	EU-F81	Fugitive Dust Emissions From Truck Traffic	05-A-108-S4
EP-F120	EU-F120	VOC Emissions from Equipment Leaks	05-A-110-S1
EP-F160	EU-F160	Wet Distillers Grains Storage	09-A-130

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**Insignificant Activities Equipment List**

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<b>Insignificant Emission Unit Number</b>	<b>Insignificant Emission Unit Description</b>
P10-TSTV	Thin Stillage Tank Vent
P10-STV	Syrup Tank Vent
P10-CWTV	Cook Water Tank Vent
P10-LT1	Liquifaction Tank #1
P10-WSTV	Whole Stillage Tank Vent

## II. Plant-Wide Conditions

Facility Name: Central Iowa Renewable Energy (CORN), LP

Permit Number: 10-TV-004-M003

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

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### Permit Duration

The term of this permit is: Five years from permit issuance.

Commencing on: June 23, 2010

Ending on: June 22, 2015

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.

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### Emission Limits

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

Opacity (visible emissions): 40% opacity

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

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

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

### Particulate Matter:

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

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

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

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is

State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

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

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

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### **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, Central Iowa Renewable Energy (CORN), LP 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, Central Iowa Renewable Energy (CORN), LP shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

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### **40 CFR 60 Subpart A Requirements**

This facility is an affected source and these General Provisions apply to the facility. The affected units are EP-S10, EP-S40, EP-S61, EP-S62, EP-S63, EP-S64, EP-S65, EP-S130, and EP-F120.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart A

### **40 CFR 60 Subpart Db Requirements**

This facility is subject to Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The affected unit is EP-S10.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart Db  
567 IAC 23.1(2) "ccc"

#### **40 CFR 60 Subpart Y Requirements**

This facility is subject to Standards of Performance for Coal Preparation Plants. The affected unit is EP-S130.

Applicable requirements are incorporated in the Emission Point Specific conditions.

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

#### **40 CFR 60 Subpart Kb Requirements**

This facility is subject to the Standards of Performance for Volatile Organic Liquid storage vessels (including petroleum liquids). This is applicable for storage tanks constructed after July 1984. The affected units are EP-S61, EP-S62, EP-S63, EP-S64, and EP-S65.

See Appendix for the complete text of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart Kb  
567 IAC 23.1(2) "ddd"

#### **40 CFR 60 Subpart DD Requirements**

This facility is subject to Standards of Performance for Grain Elevators. The affected units are EP-S18 and EP-S20.

See Appendix for the complete text of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart DD  
567 IAC 23.1(2) "ooo"

#### **40 CFR 60 Subpart VV Requirements**

This facility is subject to the Standards of Performance for Equipment leaks of VOC in the Synthetic Organic Chemicals Manufacturing industry. The affected units are EP-S10, EP-S40, and EP-F120.

See Appendix for the complete text of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart VV  
567 IAC 23.1(2) "nn"

#### **40 CFR 63 Subpart ZZZZ Requirements**

This facility is subject to National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The affected unit is EP-S110.

See Appendix for the complete text of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

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

#### **40 CFR 63 Subpart JJJJJ Requirements**

CORN, LP is subject to 40 CFR Part 63 Subpart JJJJJ- National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources and the affected unit is EP-S10.

Authority for Requirements: 40 CFR 63 Subpart JJJJJ

### III. Emission Point-Specific Conditions

Facility Name: Central Iowa Renewable Energy (CORN), LP

Permit Number: **10-TV-004-M003**

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#### **Emission Point ID Number: EP-S10**

##### Associated Equipment

Associated Emission Unit ID Numbers: EU-P10

Emissions Control Equipment ID Number: CE-10, EU-P10 <sup>(1), (2)</sup>

Emissions Control Equipment Description: Baghouse; Selective Non-Catalytic Reduction (SNCR) via Ammonia Injection (NOx control) <sup>(1)</sup>; Lime/Limestone Injection <sup>(2)</sup>

Continuous Emissions Monitors ID Numbers: CEMS/CMOS

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<sup>(1)</sup> The SNCR system is integrated into the design of EP-S10; therefore, the control equipment is the emission unit itself.

<sup>(2)</sup> Lime/Limestone is blended with coal prior to combustion.

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Emission Unit vented through this Emission Point: EU-P10

Emission Unit Description: Bubbling Fluid Bed Coal Combustor

Raw Material/Fuel: Coal or Natural Gas

Rated Capacity: 220 MMBtu/hr [Coal], 210 MMBtu/hr [Natural Gas]

#### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 44.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

Pollutant: Particulate Matter (PM)

Emission Limit(s): 44.0 lb/hr; 0.2 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.3(2) "b" (3)

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

Emission Limit(s): 44.0 lb/hr; 6 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.3(3) "a" (3)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) [natural gas]  
Emission Limit(s): 2.0 lb/hr; 500ppm<sub>v</sub>  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.3(3) "a"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit(s): 44.0 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 10.0 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

Pollutant: Carbon Monoxide (CO) [coal]  
Emission Limit(s): 44.0 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

Pollutant: Carbon Monoxide (CO) [natural gas]  
Emission Limit(s): 22.0 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

Pollutant: Single HAP (\*)  
Emission Limit(s): 0.50 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

Pollutant: Total HAP (\*)  
Emission Limit(s): 1.50 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

(\*) Chlorine (Cl), Hydrogen Fluoride (HF), Lead (Pb), Mercury (Hg), Acetaldehyde, Acrolein, Methanol, Benzene, and Formaldehyde are the HAPs of concern when firing on coal. Acetaldehyde, Acrolein, Methanol, and Formaldehyde are the HAPs of concern when firing on natural gas.

### **NSPS Emission Limits**

Pollutant: Opacity  
Emission Limit(s): 20% <sup>(1)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.1 (2) "ccc"  
40 CFR 60 Subpart Db

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

Pollutant: Federal Particulate Matter (PM)  
Emission Limit(s): See note (2)  
Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.1 (2) "ccc"  
40 CFR 60 Subpart Db

(2) On and after the date on which the initial performance test is completed or is required to be completed under Sec. 60.8 of this part, whichever comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the

atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

- a. 22 ng/J (0.051 lb/million Btu) heat input,
  - i. If the affected facility combusts only coal, or
  - ii. If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- b. 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

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

Emission Limit(s): See note (3)

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC 23.1 (2) "ccc"  
40 CFR 60 Subpart Db

(3) On and after the date on which the performance test is completed or required to be completed under Sec. 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 87 ng/J (0.2 lb/MMBTU) or 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_a H_a + K_b H_b) / (H_a + H_b)$$

where: E<sub>s</sub> is the SO<sub>2</sub> emission limit (in either ng/J or lb/MMBTU heat input)

- i. K<sub>a</sub> is 520 ng/J or 1.2 lb/MMBTU
- ii. K<sub>b</sub> is 340 ng/J or 0.8 lb/MMBTU
- iii. H<sub>a</sub> is the heat input from the combustion of coal (in either J or MMBTU)
- iv. H<sub>b</sub> is the heat input from the combustion of oil (in either J or MMBTU)

Only the heat input supplied from the combustion of coal and oil is counted. No credit is provided for the heat input from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input from other sources such as gas turbines, internal combustion engines, kilns, etc. This limit is a 30-day rolling average and applies at all times including periods of startup, shutdown, and malfunction. This standard applies to all three units.

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

Emission Limit(s): 86 ng/J (0.20 lb/MMBTU)<sup>(4)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8  
567 IAC23.1 (2) "ccc"  
40 CFR 60 Subpart Db

<sup>(4)</sup>Per 40 CFR §60.44b (h) and 40 CFR §60.44 (i), the limit is a 30-day rolling average that includes periods of startup, shutdown, and malfunction.

### **Operational Limits & Requirements**

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

#### **Operating Limits**

- A. A maximum amount of coal as received onsite combusted in the boiler (P10) shall not exceed 109,500 tons per rolling 12-month period.
- B. The coal fired in the boiler (P10) shall have a minimum heating value of 8,000 BTU/lb as received onsite.

- C. The sulfur content of coal fired in the boiler (P10) shall not exceed 0.25% by weight based on a 30-day average.
- D. The ash content of coal fired in the boiler (P10) shall not exceed 5.5% by weight based on a 30-day average.
- E. The boiler, when fired on coal, shall maintain a temperature (3-hour average) during operation of no less than 900 degrees Fahrenheit.
- F. The boiler (P10) shall combust only Low Sulfur Coal from the Powder River Basin, process offgases, natural gas and/or propane.
- G. These units are subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 – 40 CFR §60.19) and Db (40 CFR §60.40b – 40 CFR §60.49b).
- H. The applicable standards of NSPS 40 CFR Part 60 § 60.480 to § 60.489 Subpart VV shall be followed.
- I. The following control equipment are not required to be in operation when firing on natural gas: Selective Non-Catalytic Reduction, Baghouse and Lime Injection. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

### **Reporting and Recordkeeping**

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

- A. CORN, LP is required to maintain a record of the date of installation and the beginning of operation of the flow rate sensor associated with continuous monitoring system (CEM).
- B. As specified in 40 CFR Part 60 §60.49b(d), the owner or operator of a boiler (P10) shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- C. Record on a monthly basis, the amount of coal combusted in the boiler (P10) in tons. Calculate and record rolling 12-month totals.
- D. Retain onsite, the coal quality reports that detail weight percent of sulfur, ash and the heat content for each coal load received at CORN, LP.
- E. Calculate 30-day average weight percent of sulfur contained in the coal as combusted in the boiler (P10). Maintain a record of the 30-day average sulfur content as a weight percent.
- F. Calculate 30-day average weight percent of ash contained in the coal as combusted in the boiler (P10). Maintain a record of the 30-day average ash content as a weight percent.
- G. The owner or operator shall keep hourly records of the operating temperature of the boiler (P10) and record all three-hour periods (during actual operation) during which the average temperature of the coal fired bubbling fluid bed combustor is less than 900 degrees Fahrenheit.
- H. The owner or operator shall keep records of the frequency and amount of time the boiler

(P10) malfunctions, and estimate the emissions emitted during said malfunctions. All excess emission reporting shall be conducted in accordance with Conditions 6 and 8 in construction permit 05-A-125-S8.

- I. The owner or operator shall keep records of the frequency and amount of time the boiler (P10) uses propane during low temperature startup. The owner or operator shall keep records of the amount of propane used and the emissions from the use of propane based on the CEM recorded data.
- J. The owner or operator shall maintain records of the most recent emissions testing results performed on the boiler (P10) and emission point S10.
- K. All applicable recordkeeping set forth in NSPS Subparts A (40 CFR §60.1 – 40 CFR §60.19) and Db (40 CFR §60.40b – 40 CFR §60.49b) shall be kept.
- L. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart VV, 40 CFR 60.486 and 60.487.
- M. The owner or operator shall keep records of control equipment inspections and maintenance. The owner or operator shall record the date and time the Selective Non-Catalytic Reduction, Baghouse and Lime Injection are operated.

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

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

- A. NSPS 40 CFR Part 60 §60.40b – 40 CFR §60.49b Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, applies to this emission unit. Subject to the General Provisions of 40 CFR Part 60 Subpart A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19).
- B. NSPS 40 CFR Part 60 §60.480 to §60.489 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, applies to this emission unit. Subject to the General Provisions of 40 CFR Part 60 Subpart A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19).
- C. This equipment is subject to National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR § 63, Subpart JJJJJ] because the unit has the option to burn coal.

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

#### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 140

Stack Opening, (inches, dia.): 84

Exhaust Flow Rate (scfm): 121,840

Exhaust Temperature (°F): 410

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-125-S8

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. The following equipment vents emissions to Coal Fired Fluid Bed Combustor directly, indirectly or through stack EP-S10:

<b>Emission Unit</b>	<b>Maximum Capacity</b>
Coal Fired Fluid Bed Combustor	220 Million Btu/hr
Boiler Firing on Natural gas	210 Million Btu/hr
Waste Heat Recovery Boiler	165,000 lbs/hr steam
Methanator #1	3,000 cubic feet per hour
Methanator #2	3,000 cubic feet per hour
Steam Tube Dryer A	60,000 lbs of steam/hr
Steam Tube Dryer B	60,000 lbs of steam/hr
Steam Tube Dryer C	60,000 lbs of steam/hr
Centrate Tank	1,200 gallons
Centrifuges	3,600 lbs/hr
200 Proof Condenser	140 gallons ethanol per minute
190 Proof Condenser	6,700 gallons per hour
CIP Screen	250 gallons/minute
Slurry Tank #1 (TF-2203)	17,000 Gallons
Slurry Tank #2 (TF-2204)	17,000 Gallons
Yeast Propagation Tank #1 (TS-3601)	13,500 Gallons
Yeast Propagation Tank #2 (TS-3602)	
Slurry Blender (MB-2202)	800 gallons/minute
Rectifier Column	30,000 gallons/hr
3 Molecular Sieves	8,000 gallons/hr (each)
8 Evaporators	10,000 gallons/hr (each)

**Monitoring Requirements**

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

**Stack Testing:**

<b>Pollutant</b>	<b>Frequency</b>	<b>Test Run Time</b>	<b>Test Method</b>
PM (federal)	Initial <sup>(6)</sup>	2 hours	40 CFR 60, Appendix A, Method 5
PM (state)	Annual <sup>(1)</sup>	2 hours	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	Annual <sup>(1)</sup>	3 hours	40 CFR 51, Appendix M, 201A with 202
SO <sub>2</sub>	Initial <sup>(6)</sup>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	Initial <sup>(6)</sup>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	Initial <sup>(6)</sup>	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	Initial <sup>(6)</sup>	1 hour	40 CFR 60, Appendix A, Method 10
Pb	Annual <sup>(1)</sup>	1 hour	40 CFR 60, Appendix A, Method 12

Chlorine <sup>(7)</sup>	Annual <sup>(1)</sup>	2 hours <sup>(8)</sup>	40 CFR 60 Appendix A, Method 26A or approved alternative
Hydrogen Fluoride <sup>(7)</sup>	Annual <sup>(1)</sup>	2 hours <sup>(8)</sup>	40 CFR 60 Appendix A, Method 26A or approved alternative
Mercury (Hg)	Annual <sup>(1)</sup>	DNR approved test run time and methods	
Benzene	Annual <sup>(1)</sup>		
Single HAP <sup>(3)</sup>	Annual <sup>(2)(5)</sup>	1 hour	40 CFR 60, Appendix A, Method 18 or 320
Total HAP <sup>(3)(4)</sup>	Annual <sup>(2)(5)</sup>	1 hour	40 CFR 60, Appendix A, Method 18 or 320

- (1) CORN, LP shall conduct stack testing for particulate matter, lead, chlorine, hydrogen fluoride, mercury and benzene on S10 annually with a minimum of three months between compliance tests. The most recent compliance test shall represent emissions from S10. The annual performance testing shall only be required when the amount of time this emission unit is fired on coal exceeds 720 hours per 12-month rolling period. The testing shall be completed within 60 days after coal usage exceeds the aforementioned 720 hours per 12-month rolling period.
- (2) CORN, LP shall conduct performance testing on S10 during the winter season (November, December, January, or February).
- (3) Acetaldehyde, Acrolein, Methanol, and Formaldehyde shall be tested for specifically when firing on natural gas. Stack testing shall be conducted annually with a minimum of three months between compliance tests. If three consecutive stack tests do not exceed 90% of appropriate emission limitation, then the facility may request stack testing be reduced to once every three years.
- (4) Total HAPs are defined as the total emission rate of all HAP compounds. Acetaldehyde, Acrolein, Methanol, and Formaldehyde are the HAPs of concern are when firing on natural gas.
- (5) Chlorine (Cl), Hydrogen Fluoride (HF), Lead (Pb), Mercury (Hg), Acetaldehyde, Acrolein, Methanol, Benzene and Formaldehyde shall be tested for specifically when firing on coal. See footnote 2 for testing requirements when firing on coal. Acetaldehyde, Acrolein, Methanol, and Formaldehyde are the HAPs of concern are when firing on natural gas.
- (6) If an initial testing is specified, the owner or the owner's authorized agent shall verify compliance with the emission limitations within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.
- (7) Compounds not specifically limited but must be tested as a component of the Total HAP emissions from this unit.

Run times shall be of sufficient length to obtain a test sample that will be above the detection limit of the analytical methods used in the test methodology.

#### Authority for Requirement – Iowa DNR Construction Permit 05-A-125-S8

*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)*

**Continuous Emissions Monitoring:**

In accordance with 40 CFR §60.48b(a), the facility (plant number 99-05-003) shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) on S10, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator). The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 1 (PS1). The CEMS for opacity is required only when burning coal.

In accordance with 40 CFR §60.47b(a), the facility (plant number 99-05-003) shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) on S10 for measuring sulfur dioxide (SO<sub>2</sub>) and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) and shall record the output of the systems. The SO<sub>2</sub> and either O<sub>2</sub> or CO<sub>2</sub> concentrations shall be monitored at both the inlet and outlet of the SO<sub>2</sub> control device. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The facility (plant number 99-05-003) shall meet the requirements of 40 CFR §60.47b for monitoring of SO<sub>2</sub> emissions. The CEMS for SO<sub>2</sub> is required only when burning coal.

In accordance with 40 CFR §60.47b(b), the facility (plant number 99-05-003) shall install, calibrate, maintain, and operate a CEMS on S10, and record the output of the system, for measuring nitrogen oxides (NO<sub>x</sub>) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The facility (plant number 99-05-003) shall meet the requirements of 40 CFR §60.48b for monitoring of NO<sub>x</sub> emissions.

The facility (plant number 99-05-003) shall install, calibrate, maintain, and operate a CEMS on S10, and record the output of the system, for measuring carbon monoxide (CO) emissions discharged to the atmosphere. The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 4A (PS4A) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit. The CEMS for CO is required only when burning coal.

Compliance with the non-NSPS opacity, SO<sub>2</sub>, NO<sub>x</sub> and CO emission standards of this permit shall be demonstrated through the use of the monitors required by NSPS Subpart Db. CORN, LP shall install, calibrate, maintain, and operate a CEMS for measuring SO<sub>2</sub>, NO<sub>x</sub> and CO emissions

discharged to the atmosphere and record the output of the system in lb/hr. To determine lb/hr emission rate, owner/operator is required to install a flow rate sensor per the requirements of 40 CFR Part 60 Appendix B: Performance Specification 6. This output shall be calculated as the arithmetic average of three contiguous 1-hour periods for SO<sub>2</sub>, 30 days for NO<sub>x</sub> and 30 days for CO. CORN, LP is required to install a flow rate sensor by January 7, 2013. The following conditions shall apply to all CEMS for non-NSPS opacity, SO<sub>2</sub>, NO<sub>x</sub>, and CO emission standards:

- (1) The CEMS required by this permit shall be operated and data recorded during all periods of operation except for CEM breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The CEMS for opacity, SO<sub>2</sub>, and CO are required only when the boiler is fired on coal. The facility must bring these CEMS online and conduct relative accuracy test audits (RATA) prior to burning coal in the boiler. The facility shall notify the Department no less than fifteen (15) days prior to the date of each RATA.
- (2) For each 1-hour period, the average SO<sub>2</sub>, NO<sub>x</sub>, and CO emission rates measured by the CEMS shall be used to calculate the emissions. At least 2 data points must be used to calculate each 1-hour average. As specified in 567 IAC 20.2, 1-hour period means any 60-minute period commencing on the hour. Compliance is demonstrated with SO<sub>2</sub>, NO<sub>x</sub>, and CO emission limits as specified in condition 10 by the arithmetic averages discussed above.
- (3) For each hour of missing emission data (NO<sub>x</sub>, SO<sub>2</sub>, or CO), the owner or operator shall substitute data by:
  1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
    - a) For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
    - b) For a missing data period greater than 24 hours, substitute the greater of:
      - i) The 90<sup>th</sup> percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
      - ii) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
  2. If the monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
    - a) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the

hour before and the hour after the missing data period.

- b) For the missing data period of more than 8 hours, substitute the greater of:
  - i) The 95<sup>th</sup> percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
  - ii) The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
  
- 3. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

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

Authority for Requirement – Iowa DNR Construction Permit 05-A-125-S8

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Compliance Assurance Monitoring Plan

### CAM Plan for EP-S10 Baghouse

(The following CAM plan requirements do not apply when the unit is firing on natural gas only)

I. Background

A. Emissions Unit:

Description: Coal Combustor, Distillation Process, & DDGS Steam Dryers  
 Identification: EP-S10  
 Facility: Central Iowa Renewable Energy (CORN), LP  
 1303 Highway 3 East, P.O. Box 280  
 Goldfield, IA 50542

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: Permit 05-A-125-S8 Particulate emission  
 limit: 36.20 lb/hr; 0.2 lb/MMBtu for PM  
 36.20 lb/hr for PM10  
 Opacity emission limit: 40%  
 Current Monitoring requirements:  
 1. Stack Testing  
 2. Record the amount of coal combusted on a monthly basis  
 3. Daily opacity (no visible emissions) readings  
 4. Weekly pressure drop across the baghouse

C. Control Technology

Baghouse

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are baghouse module differential pressure and visible emissions.

**Table A – Monitoring Approach**

	<b>Indicator #1</b>	<b>Indicator #2</b>
I. Indicator	Differential pressure across baghouse.	Visible Emissions.
Measurement Approach	Differential pressure measured across the baghouse by a pressure gauge.	Visible emissions from baghouse exhaust while EP-S10 is operating.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable pressure drop range is 0.5 – 5" water column. If the pressure drop measurement falls outside this range, the procedure is to investigate the cause and take necessary	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a 6 minute visible emissions observation (similar to Method 22).

	<b>Indicator #1</b>	<b>Indicator #2</b>
	corrective actions. With the filter bag media in place, the manufacturer has provided a design specification of 0 – 8” water column. Water column is 0” or >8” will trigger an immediate investigation and corrective action. Records of each inspection and corrective action will be kept. The inspection that is triggered is a 6 minute visible emissions observation (similar to Method 22).	
<b>III. Performance Criteria</b>		
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer’s specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer’s specifications.	The observer will be trained by CORN LP to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded. These records will be kept a minimum of 5 years.	Results of "no visible emissions" observations are recorded and will be kept a minimum of 5 years.

### III. Justification

#### A. Background

The coal combustor (EP-S10) at the CORN, LP plant is subject to the Compliance Assurance Monitoring (CAM) requirements as listed in 40 CFR Part 64. The coal combustor baghouse controls PM and PM10, which triggered the CAM requirements.

#### B. Rationale for Selection of Performance Indicator

The weekly pressure drop readings were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the

particulate emission standard. According to the equipment designer and manufacturer, the design range for the pressure drop in the baghouse with our filter bag media is 0- 8 inches water column. The typical operating range per the manufacturer is 0.5- 5.0 inches water column with the filter bag media currently utilized at CORN, LP. Any excursions outside the 0.5- 5.0 inches water column are investigated for cause which may include instrumentation failure, reduced production rate, maintenance, or actual bag house system failure. Therefore, the detection of excessive pressure drop is used as a performance indicator. Opacity monitors and visual stack inspection are also utilized to ensure proper bag house operation.

The rate at which PM/PM10 are controlled is greatly affected by amount of fuel combusted. As such, the monitoring approach demonstrates the importance of the amount of coal combusted as well as the detailed weight percent of constituents (sulfur, ash). The amount of fuel combusted shall be recorded and maintained daily, on a monthly basis for the amount of coal combusted, and on a 30-day average for the weight content of sulfur and ash.

### C. Rationale for Selection of Indicator Level

The selected indicator ranges are the typical operational pressure drop range (0.5 – 5.0 inches water) and the design pressure drop range (0- 8 inches water). (It should be noted here that the design operational pressure drop range is 0 – 8 inches water, and the reason for the lower limit of 0" is due to the PTFE membrane of the bag, which does not require a dust cake on the bag to filter efficiently). If a pressure drop greater than the values noted is observed, an inspection and appropriate corrective action will be taken within 8 hours.

The changes in pressure drop noted above were selected as indicator ranges because a pressure drop greater than these values are indicative of a potential increase in particulate emissions due to a decrease in the performance of this baghouse. If the baghouse is operating properly, there will not be a pressure drop greater than 5 inches of water except during start up, shut down, and upset conditions.

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

The amount of fuel combusted coupled with the recording quality data (ash and sulfur content) of the fuel was chosen as an indicator because it greatly affects the emission rates of pollutants.

## **Emission Point ID Number: EP-S16**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P16  
Emissions Control Equipment ID Number: CE-16  
Emissions Control Equipment Description: Bin Vent Filter System  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P16  
Emission Unit Description: Sand Storage Bin  
Raw Material/Fuel: Sand  
Rated Capacity: 15 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-098-S4  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.01 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-098-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.01 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-098-S4  
567 IAC 23.3(2) "a"

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

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

#### **Operating Limits**

- A. The owner or operator is limited to loading a maximum of 5,720 tons of sand per rolling 12-month period into Sand Storage Bin (EU-P16).
- B. Maintain Bin Vent Filter System (CE-16) according to manufacturer specifications and maintenance schedule.

**Reporting and Recordkeeping**

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

- A. Record on monthly basis, the amount of sand loaded into Sand Storage Bin (EU-P16) in tons. Calculate and record rolling 12-month totals.
- B. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Bin Vent Filter System (CE-16).

Authority for Requirement: Iowa DNR Construction Permit 05-A-098-S4

**Emission Point Characteristics**

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

- Stack Height, (ft, from the ground): 48
- Stack Opening, (square inches, total area): 90
- Exhaust Flow Rate (scfm): 100
- Exhaust Temperature (°F): Ambient
- Discharge Style: Downward Discharge

Authority for Requirement: Iowa DNR Construction Permit 05-A-098-S4

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

**Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-S18**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P18  
Emissions Control Equipment ID Number: CE-18  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P18  
Emission Unit Description: Open Corn Pile/Grain Storage Silo #1/Grain Storage Silo #2  
Raw Material/Fuel: Corn  
Rated Capacity: 3,500,000 bushels on Open Corn Pile; 700,000 bushels on Grain Storage Silos

### Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-099-S4  
567 IAC 23.3(2) "d"

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

Pollutant: Opacity

Emission Limit(s): 0%

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.19 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-099-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.19 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-099-S4  
567 IAC 23.4(7)

### Operational Limits & Requirements

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

#### **Operating Limits**

- A. The owner and operator are limited to unloading 3,500,000 bushels of corn per rolling 12-month period into Open Corn Pile (P18).
- B. Grain Storage Silo #1 and Grain Storage Silo #2 shall be filled while aeration fans are

locked out (i.e. Aeration fans shall not operate during filling operations).

- C. The Baghouse (CE18) differential pressure drop shall be maintained between 0.1 and 8 inches water column.
- D. The owner or operator shall conduct visible emissions observation (opacity) on emission point (S18) once per week.
- E. Maintain Baghouse (CE18) according to manufacturer specifications and maintenance schedule.

### **Reporting and Recordkeeping**

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

- A. Record on a monthly basis, the amount of corn unloaded into Open Corn Pile (P18) in bushels. Calculate and record rolling 12-month totals.
- B. The owner or operator shall collect and record the pressure drop across the Baghouse (CE18), in inches of water, at least once per calendar day. If the pressure drop across the Baghouse (CE18) falls outside the range specified in Condition 14c, the owner or operator shall investigate the Baghouse (CE18) and make corrections to Baghouse (CE18). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE18) is not in operation.
- C. If the owner or operator observes visible emissions from S18, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.
- D. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Baghouse (CE18).

Authority for Requirement: Iowa DNR Construction Permit 05-A-099-S4

### **NSPS and NESHAP Applicability**

This emission point is subject to NSPS Subpart A – General Provisions and Subpart DD – Standards of Performance for Grain Elevators.

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

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 80

Stack Opening, (inches, dia.): 20

Exhaust Flow Rate (scfm): 10,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-099-S4

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

**Monitoring Requirements**

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

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

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

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

*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: EP-S20**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P20  
Emissions Control Equipment ID Number: CE-20  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P20  
Emission Unit Description: Grain Unloading/Receiving; Corn Elevator Leg-Headhouse & Internal Handling; Scalper; Corn Day Bin#1; Corn Day Bin#2  
Raw Material/Fuel: Grain  
Rated Capacity for storage: 20,000 bushel/hr for Scalper; 20,000 bushels for Corn Day Bin #1; 6,000 bushels for Corn Day Bin #2

**Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-100-S6  
567 IAC 23.3(2) "d"

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

Pollutant: Opacity

Emission Limit(s): 0%

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.46 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-100-S6

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.46 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-100-S6  
567 IAC 23.4(7)

## **Operational Limits & Requirements**

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

### **Operating Limits**

- A. CORN, LP is limited to receiving/processing 31,301,348 bushels of corn per rolling 12-month period.
- B. The amount of corn received (i.e. originated from) from Gold Eagle Cooperative-Goldfield site in bushels shall not exceed 50% of the total bushels received at CORN, LP per rolling 12-month period.
- C. The Baghouse (CE-20) differential pressure drop shall be maintained between 0.1 and 10 inches water column.
- D. The owner or operator shall conduct visible emissions observation (opacity) on emission point (EP-S20) once per week.
- E. Maintain Baghouse (CE-20) according to manufacturer specifications and maintenance schedule.

### **Reporting and Recordkeeping**

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

- A. The owner or operator shall maintain the following records for each delivery:
  - 1) The amount of corn in bushels and
  - 2) Where the corn originated (i.e. local farmer, elevator, cooperative, etc.)
- B. Calculate and record on a daily basis, the total amount of corn delivered to CORN, LP in bushels.
- C. Calculate and record on a daily basis, the total amount of corn delivered to CORN, LP from Gold Eagle Cooperative-Goldfield site in bushels.
- D. Calculate and record on a monthly basis, the total amount of corn delivered to CORN, LP in bushels. Calculate and record rolling 12-month totals.
- E. Calculate and record on a monthly basis, the total amount of corn delivered to CORN, LP from Gold Eagle Cooperative-Goldfield site in bushels. Calculate and record rolling 12-month totals.
- F. Calculate and record on a monthly basis, the percentage of corn delivered from Gold Eagle Cooperative-Goldfield site using the rolling 12-month totals of corn deliveries.
- G. The owner or operator shall collect and record the pressure drop across the Baghouse (CE-20), in inches of water, at least once per calendar day. If the pressure drop across the Baghouse (CE-20) falls outside the range specified in Item C in **Operating Limits**, the owner or operator shall investigate the Baghouse (CE-20) and make corrections to Baghouse (CE-20). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE-20) is not in operation.
- H. If the owner or operator observes visible emissions from EP-S20, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.

- I. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Baghouse (CE-20).

Authority for Requirement: Iowa DNR Construction Permit 05-A-100-S6

**NSPS and NESHAP Applicability**

This emission point is subject to NSPS Subpart A – General Provisions and Subpart DD – Standards of Performance for Grain Elevators.

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

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 80

Stack Opening, (inches, dia.): 42

Exhaust Flow Rate (scfm): 16,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-100-S6

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

**Monitoring Requirements**

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

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

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

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

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

*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: EP-S30**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P30  
Emissions Control Equipment ID Number: CE-30  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P30  
Emission Unit Description: Hammermill  
Raw Material/Fuel: Grain  
Rated Capacity: 3,600 bushel/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-101-S4  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 1.52 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-101-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 1.52 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-101-S4  
567 IAC 23.4(7)

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

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

#### **Operating Limits**

- A. Maintain Baghouse (CE30) according to manufacturer specifications and maintenance schedule.
- B. The owner or operator shall conduct visible emissions observation (opacity) on emission point (S30) once per week.

**Reporting and Recordkeeping**

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

- A. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Baghouse (CE30).
- B. If the owner or operator observes visible emissions from S30, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-101-S4

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 80

Stack Opening, (inches, dia.): 32

Exhaust Flow Rate (scfm): 7,600

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-101-S4

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

**Monitoring Requirements**

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

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

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

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

*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: EP-S40**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P40  
Emissions Control Equipment ID Number: CE-40  
Emissions Control Equipment Description: CO<sub>2</sub> Scrubber  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P40  
Emission Unit Description: Fermentation Process  
Raw Material/Fuel: Process Gas  
Rated Capacity: 62 MMgal/yr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.22 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.22 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4  
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 11.30 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

Pollutant: Single HAP

Emission Limit(s): 0.80 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

Pollutant: Total HAP

Emission Limit(s): 1.40 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

## **Operational Limits & Requirements**

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

### **Operating Limits**

- A. Fermentation Scrubber (CE-40) shall maintain an average pressure drop across the wet scrubber greater than 6 inches water column based on a 24-hour averaging period. CORN, LP shall establish alarm setting for the purpose of initiating corrective action procedures based on average pressure drop across the wet scrubber of 8 inches water column based on a 24-hour average. After collection of 12 months of pressure drop data, CORN, LP shall reevaluate minimum pressure drop requirements to determine if pressure drop monitoring shall be adjusted, if so CORN, LP shall submit a modification request to the Department.
- B. Fermentation Scrubber (CE40) shall have a minimum scrubber liquid (water) flow rate which is calculated as 90 percent of the average liquid flow rate at the inlet to the wet scrubber measured during the most recent or any performance test within the last 36 months that demonstrated compliance with all applicable emission limitations.
- C. Any additive added to the scrubber liquid during the compliance testing to enhance the removal efficiency of the scrubber shall be added at a rate greater or equal to the rate demonstrated during the most recent or any performance test within the last 36 months that demonstrated compliance with all applicable emission limitations.
- D. Maintain Fermentation Scrubber (CE-40) according to manufacturer specifications and maintenance schedule.

### **Reporting and Recordkeeping**

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

- A. Record the scrubber pressure drop on a continuous basis. Calculate and record the average pressure drop across the scrubber based on 24-hour average. If the pressure drop deviates below the minimum pressure record the time, date, and actions taken to correct the situation and also when the parameter is back above the minimum average pressure drop. All excess emission reporting shall be conducted in accordance with conditions 6 and 8 in construction permit 05-A-109-S4 (Conditions 6 and 8 in construction 05-A-109-S4 are cited at the end of this section).
- B. Record the scrubber liquid (water) flow rate on a continuous basis. If the flow rate deviates below the minimum flow rate record the time, date, and actions taken to correct the situation and also when the parameter is back above the minimum flow rate. All excess emission reporting shall be conducted in accordance with conditions 6 and 8 in construction permit 05-A-109-S4.
- C. Record the rate of additive added (additive feed rate) to the scrubber liquid on a daily basis. This shall include daily measurement of additive (daily draw down) to verify that the pump additive feed rate is greater than or equal to the additive feed rate demonstrated during the most recent performance test. If the additive feed rate deviates below the rate demonstrated during the most recent performance test, record the time, date, and actions

taken to correct the situation and also when the parameter is greater than or equal to the additive rate demonstrated during the most recent performance test. All excess emission reporting shall be conducted in accordance with conditions 6 and 8 in construction permit 05-A-109-S4.

- D. Maintain onsite a copy of the most recent performance test detailing scrubber pressure drop, scrubber liquid flow rate, and additive feed rate measured during most recent performance test that demonstrated compliance with Section "Emission Limits".
- E. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Fermentation Scrubber (CE-40).

#### **Construction Permit 05-A-109-S4 Condition 6**

##### **Excess Emissions**

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

#### **Construction Permit 05-A-109-S4 Condition 8**

##### **Notification, Reporting and Recordkeeping**

- A. The owner shall furnish the DNR the following written notifications:
  - 1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - 2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - 3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
  - 4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
  - 5. Transfer of equipment ownership, within 30 days of the occurrence;
  - 6. Portable equipment relocation, at least thirty (30) days before equipment relocation.
- B. The owner shall furnish DNR with the following reports:
  - 1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
  - 2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test

period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following addresses:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, Iowa 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

D. The owner shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, Iowa 50324  
Telephone: (515) 725-9545  
FAX: (515) 725-9502

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	Field Office 2 2300 15 <sup>th</sup> Street SW Mason City, IA 50401 Telephone: (641) 424-4073 Fax: (641) 424-9342
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F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

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

- A. CORN, LP is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart VV- *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* as specified in 40 CFR Part 60 §60.480.
- B. CORN, LP is subject to the requirements/conditions of NSPS Subpart A-*General Provisions*.

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 80

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 6,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-109-S4

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

The following equipment is vented through stack (EP-S40):

<b>Emission Unit</b>	<b>Maximum Capacity</b>
Batch Mash Fermenter No. 1	730,000 gallons
Batch Mash Fermenter No. 2	730,000 gallons
Batch Mash Fermenter No. 3	730,000 gallons
Batch Mash Fermenter No. 4	730,000 gallons
Beer Well	985,000 gallons

**Monitoring Requirements**

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

**Stack Testing:**

Pollutant – VOC, single HAP, total HAP

1. CORN, LP shall conduct stack testing for VOC, total HAP, and single HAP on EP-S40 annually with a minimum of three months between compliance tests. The most recent compliance test shall represent emissions from S40.

Test Method – see the table below

<b>Pollutant</b>	<b>Test Run Time</b>	<b>Test Method</b>
VOC <sup>(1)</sup>	1 hour	40 CFR 60, Appendix A, Method 25A or 320 <sup>(3)</sup>
Total HAP <sup>(2)</sup>	1 hour	According to the IDNR Approved Method
Single HAP <sup>(2)</sup>	1 hour	According to the IDNR Approved Method

- (1) VOC compliance testing may be determined using the worst case of either Method 25A or the sum of the Method 320 results.
- (2) Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. All HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.
- (3) Method 25A shall include the Midwest Scaling Protocol adjustments.

Authority for Requirement – Iowa DNR Construction Permit 05-A-109-S4

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

**Agency Approved Operation & Maintenance Plan Required?**

Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**

Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## **CAM Plan for EP-S40 Fermentation Process**

### I. Background

Emissions Unit (EP-S40/CE-40):

Description: Fermentation (process vessels and beer well)

EP ID: EP-S40

Control: Control Device is a Packed Bed Scrubber (ID: CE-40)

Limits: VOC limit – 11.30 lb/hr

### II. Monitoring Approach

See Table I

## **MONITORING APPROACH JUSTIFICATION**

### A. Background

The fermentation process (EP-S40) at the CORN, LP plant is subject to the Compliance Assurance Monitoring (CAM) requirements as listed in 40 CFR Part 64. The fermentation process is controlled by a packed bed scrubber (CE-40). The scrubber controls the pollutants that trigger the CAM requirements, or VOC emissions.

### B. Rationale for Selection of Performance Indicators

The rate at which VOC's are controlled is greatly affected by water flow rate and the amount of chemical additive injection. As such, the monitoring approach relies on the fact that low water flow and low chemical injection may indicate potential for insufficient destruction of applicable pollutants. The proposed minimum water flow rate and chemical injection rates are based on compliance testing data and engineering knowledge of the scrubber and chemical additives. The water flow rate to the scrubber is maintained at a minimum of 90 percent of the average flow rate at the inlet to the scrubber measured during the most recent performance test. Thirty-five gallons per minute is the rate at which scrubber VOC emissions were most recently tested and passed. Also, the chemical injection rate is maintained at a minimum of 2.75 gph, the rate at which the chemical was being injected during the most recent performance testing confirming compliance with VOC emissions. Should the water flow rate or chemical injection rate fall below these rates, corrective measures are taken, the incident is logged, and the incident is reported as required by the Title V Permit.

The water flow rate is monitored on a continual basis through the DCS. Historical and real time data can be pulled off the system to ensure average flow rates are being maintained. The additive rate is monitored by a daily drawdown test by plant personnel. The rate is recorded in the plant's operating log database.

An inspection and maintenance (I/M) program provides assurance that this equipment is in good repair and is being properly operated. Inspection and maintenance of the scrubber system and monitoring systems is conducted per the manufacturer's specified recommendations. Daily walkthroughs and semi-annual inspections are performed. Maintenance needs and excursions are documented and performed as needed.

C. Rationale for Selection of Indicators

The indicator for minimum flow rate for both water flow rate and chemical injection rate was selected based on manufacturer's suggested parameters, performance testing, and limits in current IDNR construction permits. Baseline flow rates and measurements are concurrent with emissions testing.

Operating according to manufacturer specifications and inspections was chosen as an indicator because this can ensure proper operations of the device, especially when combined with the water flow rate and chemical injection rates as mentioned above.

Table I Monitoring Approach

	Indicator No. 1	Indicator No. 2	Indicator No. 3
I. Indicator Measurement approach	Water Flow Rate	Sodium Bisulfite Injection	Inspection/maintenance (I/M)
	DCS monitors constant water flow rate.	Daily drawdown to monitor additive injection rate.	Detailed inspection twice a year and daily plant walk-throughs.
II. Indicator Range	Water flow rate will be maintained at an average minimum of 90% of the flow rate at the inlet to the scrubber during the most recent performance test demonstrating compliance with all applicable emissions limitations. (The average flow rate during the most recent compliance demonstration 3/17/09 was 35 gallon per minute.) Should the indicator fall below 90% of flow rate (average) during the most recent successful compliance demonstration,—corrective measures will be made and the incident will be recorded and reported as required.	Chemical injection rate will be maintained at a minimum average injection rate equal to or greater than the rate demonstrated during the most recent performance test that demonstrated compliance with all applicable emission limitations. (The average additive flow rate during the most recent compliance demonstration 3/17/09 was 2.75 gallons per hour.) Should the indicator fall below the average additive flow rate during the most recent compliance demonstration, corrective measures will be made and the incident will be recorded and reported as required.	Maintenance as necessary, corrective action will be documented and completed per permit recommendation.
III. Performance Criteria A. Data Representativeness B. Verification of Operational Status C. QA/QC Practices and Criteria D. Monitoring Frequency Data Collection Procedures Averaging Period	Water flow rate is measured on the DCS.	Injection rate is monitored by plant personnel and recorded in a database.	Detailed inspection twice a year and daily plant walk-throughs.
	NA	NA	NA
			Qualified personnel perform inspection.
	Constant	Daily	Detailed inspection twice a year and daily plant walk-throughs.
	Constant via DCS	Operations logging database	Records are maintained to Document any excursion or equipment needing maintenance.
	Daily	Daily	NA

## **Emission Point ID Number: EP-S50**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P50, EU-P100  
Emissions Control Equipment ID Number: CE-50  
Emissions Control Equipment Description: Enclosed Flare  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P50, EU-P100  
Emission Unit Description: Truck/Rail Loadout  
Raw Material/Fuel: Propane  
Rated Capacity: 6.4 MMBtu/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.05 lb/hr; 0.22 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.22 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3  
567 IAC 23.3(2) "a"

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

Emission Limit(s): 0.70 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 3.55 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 3.59 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

Pollutant: Total HAP

Emission Limit(s): 0.76 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

### **Operational Limits & Requirements**

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

#### **Operating Limits**

- A. Owner or operator is limited to a maximum production/loadout (loadout by truck or rail) of 72 million gallons of denatured ethanol per twelve month rolling period at CORN, LP.
- B. Owner or operator is limited to blending a maximum of 3.1 million gallons of denaturant (gasoline) with ethanol per twelve month rolling period at CORN, LP.
- C. Owner or operator is limited to loading trucks with ethanol for a maximum of 4,000 hours per rolling 12-month period at CORN, LP.
- D. Ethanol Loadout Flare (CE-50) shall be maintained and operated according to the specifications and requirements specified in 40 CFR Part 60 §60.18(b).

#### **Reporting and Recordkeeping**

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

- A. On a monthly basis, the owner or operator shall keep records of the amount of denatured ethanol produced/loaded out at CORN, LP in gallons. Calculate and record rolling 12-month totals.
- B. On a monthly basis, the owner or operator shall keep records of the amount of denaturant (gasoline) used in ethanol blending at CORN, LP in gallons. Calculate and record rolling 12-month totals.
- C. On a monthly basis, the owner or operator shall keep records of the number hours that trucks are loaded with ethanol at CORN, LP. Calculate and record rolling 12-month totals.
- D. The owner or operator shall maintain records that Ethanol Loadout Flare (CE-50) complies with the specifications and requirements specified in 40 CFR Part 60 §60.18(b).
- E. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Ethanol Loadout Flare (CE-50).

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 25

Stack Opening, (inches, dia.): 30

Exhaust Flow Rate (scfm): 1,520

Exhaust Temperature (°F): 1800

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-113-S3

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

**Monitoring Requirements**

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

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

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

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

*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: EP-S60**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P60  
Emissions Control Equipment ID Number: CE-60  
Emissions Control Equipment Description: Enclosed Flare  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P60  
Emission Unit Description: Methanator #1&#2  
Raw Material/Fuel: Waste Gas  
Rated Capacity: 6.4 MMBtu/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity  
Emission Limit(s): 40% <sup>(1)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)  
Emission Limit(s): 0.05 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf; 0.05 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 0.52 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit(s): 0.64 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.04 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

**Operational Limits & Requirements**

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

**Operating Limits**

- A. Owner or operator is limited to venting emissions from Methanators #1 and #2 to Enclosed Flare (CE-60) in cases of process malfunction such as Coal Fired Boiler (EP-S10) malfunction or upset conditions. During normal operation, emissions generated from Methanators #1 and #2 shall be vented to Coal Fired Boiler (EP-S10).
- B. Enclosed Flare (CE-60) shall be maintained and operated according to the specifications and requirements specified in 40 CFR Part 60 §60.18(b).

**Reporting and Recordkeeping**

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

- A. Maintain record or log of each occurrence of emissions from Methanators #1 and #2 venting to Enclosed Flare (CE-60). The record or log for each venting occurrence shall include the time duration and reason for methanators venting to Enclosed Flare (CE-60).
- B. The owner or operator shall maintain records that Enclosed Flare (CE-60) complies with the specifications and requirements specified in 40 CFR Part 60 §60.18(b).
- C. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Enclosed Flare (CE-60).

Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

**Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 3,200

Exhaust Temperature (°F): 1,800

Discharge Style: Vertical, Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-123-S2

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: Storage Tanks (EP-S61, EP-S62)**

Associated Emission Units

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

*EP=Emission Point, EU=Emission Unit, CE=Control Equipment*

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	CE	CE Description	Construction Permit
EP-S61	EU-T61	Denatured Ethanol Storage Tank #1	Denatured Ethanol	1,000,000 gal	C61	Internal Floating Roof	05-A-102-S4
EP-S62	EU-T62	Denatured Ethanol Storage Tank #2	Denatured Ethanol	1,000,000 gal	C62		05-A-103-S4

**Applicable Requirements**

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

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

No emission limits required at this time.

**Operational Limits & Requirements**

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

**Operating Limits**

- A. The owner or operator shall follow the applicable standards of Subpart Kb, 40 CFR 60.112b(a)(1) and inspect as required in 40 CFR 60.113b(a).
- B. The owner or operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.
- C. The tanks shall store only ethanol (denatured and undenatured).
- D. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).

**Reporting and Recordkeeping**

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

- A. Record as specified in 40 CFR Part 60 §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.
- B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR 60.115b through 60.116b.
- C. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.
- D. The owner or operator shall keep records for Subpart VV as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.
- E. Record annually, the net material throughput in gallons.

Authority for Requirement: Iowa DNR Construction Permit 05-A-102-S4; 05-A-103-S4

**NSPS and NESHAP Applicability**

- A. The tanks are subject to Subpart A (General Provisions), Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006, and Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 of the New Source Performance Standards (NSPS).

Authority for Requirement: Iowa DNR Construction Permit 05-A-102-S4; 05-A-103-S4

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed in the tables below.*

<b>Parameter</b>	<b>Value</b>	
Stack Height, (ft, from the ground)	47 Feet (6 Vents)	51 Feet ( 1Vent)
Discharge Style	Horizontal Discharges	Downward Discharge
Stack Opening	387 Square inches (Each)	10 inch Diameter
Exhaust Temperature (°F)	Ambient	Ambient
Exhaust Flowrate (scfm)	Working/Breathing Loss	Working/Breathing Loss

Authority for Requirement: Iowa DNR Construction Permit 05-A-102-S4, 05-A-103-S4

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: Storage Tanks (EP-S63, EP-S64, EP-S65)

### Associated Emission Units

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

*EP=Emission Point, EU=Emission Unit, CE=Control Equipment*

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	CE	CE Description	Construction Permit
EP-S63	EU-T63	200 Proof Ethanol Storage Tank	200 Proof Ethanol	165,000 gal	C63	Internal	05-A-104-S3
EP-S64	EU-T64	Denaturant Storage Tank	Denaturant	165,000 gal	C64	Floating	05-A-105-S3
EP-S65	EU-T65	190 Proof Ethanol Storage Tank	190 Proof Ethanol	165,000 gal	C65	Roof	05-A-106-S3

### Applicable Requirements

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

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

No emission limits required at this time.

#### Operational Limits & Requirements

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

#### **Operating Limits**

- A. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b (a) (1).

#### **Reporting and Recordkeeping**

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

- A. Record and report as specified in 40 CFR Part 60 §60.115b (a) Reporting and recordkeeping requirements.
- B. Record as specified in 40 CFR Part 60 §60.116b (a), the owner or operator shall keep copies of all records required by §60.11b (b) for the life of the source.
- C. Record as specified in 40 CFR Part 60 §60.116b (b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.
- D. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.
- E. Record annually, the net material throughput in gallons.

Authority for Requirement: Iowa DNR Construction Permit 05-A-104-S3; 05-A-105-S3; 05-A-106-S3

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

- A. These tanks are subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction,

Reconstruction, or Modification Commenced After July 23, 1984 as specified in 40 CFR Part 60 §60.110b(a).

B. These tanks are subject to the requirements/conditions of NSPS Subpart A-General Provisions.

Authority for Requirement: Iowa DNR Construction Permit 05-A-104-S3; 05-A-105-S3 05-A-106-S3

**Emission Point Characteristics**

*The emission points shall conform to the specifications listed in the tables below.*

**Emission Point Characteristics for EP-S63, EP-S64, and EP-S65**

<b>Parameter</b>	<b>Value</b>	
Stack Height, (ft, from the ground)	34 Feet (4 vents)	38 Feet (1 vent)
Discharge Style	Horizontal Discharges	Downward Discharge
Stack Opening, (inches, area)	380 Square inches (each)	10 inch Diameter
Exhaust Temperature (°F)	Ambient	Ambient
Exhaust Flowrate (scfm)	Working/Breathing Loss	Working/Breathing Loss

Authority for Requirement: Iowa DNR Construction Permit 05-A-104-S3, 05-A-105-S4, 05-A-106-S3

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-S66**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T66  
Emissions Control Equipment ID Number: C66  
Emissions Control Equipment Description: Fixed Roof  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-T66  
Emission Unit Description: Additive Storage Tank  
Raw Material/Fuel: Corrosion Inhibitor  
Rated Capacity: 8,000 gal/yr

### **Applicable Requirements**

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

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

No emission limits required at this time.

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

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

#### **Operating Limits**

- A. Owner or operator is limited to a maximum throughput of 8,000 gallons of additive (Corrosion Inhibitor) per rolling 12-month total in Additive Storage Tank (EU-T66).

#### **Reporting and Recordkeeping**

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

- A. Record on a monthly basis, the throughput of additive in Additive Storage Tank (EU-T66) in gallons. Calculate and record rolling 12-month totals.

Authority for Requirement: Iowa DNR Construction Permit 05-A-107-S2

#### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 8  
Stack Opening, (square inches, area): 314.8  
Exhaust Flow Rate (scfm): Working/Breathing Loss  
Exhaust Temperature (°F): Ambient  
Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-107-S2

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-S70**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P70  
Emissions Control Equipment ID Number: CE-70  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P70  
Emission Unit Description: DDGS Cooler  
Raw Material/Fuel: DDGS  
Rated Capacity: 24.5 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 1.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 1.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4  
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 6.50 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4

Pollutant: Single HAP

Emission Limit(s): 0.51 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4

Pollutant: Total HAP

Emission Limit(s): 1.20 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4

## **Operational Limits & Requirements**

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

### **Operating Limits**

- A. The owner or operator shall conduct visible emissions observation (opacity) on emission point (S70) once per week
- B. Maintain Baghouse (CE70) according to manufacturer specifications and maintenance schedule.

### **Reporting and Recordkeeping**

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

- A. If the owner or operator observes visible emissions from S70, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.
- B. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Baghouse (CE20).

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 60

Stack Opening, (inches, dia.): 36

Exhaust Flow Rate (acfm): 33,000

Exhaust Temperature (°F): 114

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-115-S4

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

### **Monitoring Requirements**

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

#### **Stack Testing:**

Pollutant – Opacity, PM<sub>10</sub>, PM, Single HAP, Total HAP

CORN, LP shall conduct stack testing for particulate matter and visible emissions observation on EP-S70 annually with a minimum of three months between compliance tests. The most recent compliance test shall represent emissions from EP-S70. Last performance test on EP-S70 was conducted on 06/03/2009 and demonstrated compliance.

Test Method – see the table below

Pollutant	Test Run Time	Test Method
PM (state)	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
VOC <sup>(1)</sup>	1 hour	40 CFR 60, Appendix A, Method 18 or 320
Total HAP <sup>(2)</sup>	1 hour	40 CFR 60, Appendix A, Method 18 or 320
Single HAP <sup>(2)</sup>	1 hour	According to the IDNR Approved Method

- (1) VOC compliance testing may be determined using the worst case of either Method 25A or the sum of the Method 320 results.
- (2) Acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. All HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.

Authority for Requirement – Iowa DNR Construction Permit 05-A-115-S4

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

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

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

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

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

*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: EP-S80**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P80

Emissions Control Equipment ID Number: C80

Emissions Control Equipment Description: Demister

Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P80

Emission Unit Description: Cooling Tower (4 Cell)

Raw Material/Fuel: Water

Rated Capacity: 1,500,000 gal/hr

### **Applicable Requirements**

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

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1gr/dscf; 6.86 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-112-S3

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

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

#### **Operating Limits**

- A. The Total Dissolved Solids (TDS) concentration in the cooling water shall not exceed 2,500 parts per million by weight (2,500 mg/L) for any single sampling event.
- B. Maintain Cooling Tower (EU-P80) according to manufacturer specifications and maintenance schedule.
- C. Biocide or additive used in cooling water shall not contain any VOCs or HAPs.

#### **Reporting and Recordkeeping**

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

- A. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration in the cooling water at least once for each calendar quarter that Cooling Tower (P80) is in operation.
- B. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower (EU-P80).
- C. Maintain onsite a copy of Material Safety Data Sheet (MSDS) of any biocide or additive used in cooling water detailing VOC and/or HAP content.

Authority for Requirement: Iowa DNR Construction Permit 05-A-112-S3

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 33 per cell

Stack Opening, (inches, dia.): 648 per cell

Exhaust Flow Rate (scfm): 532,100 per cell

Exhaust Temperature (°F): 85

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-112-S3

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-S90**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P90  
Emissions Control Equipment ID Number: CE-90  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P90  
Emission Unit Description: DDGS Loadout  
Raw Material/Fuel: DDGS  
Rated Capacity: 220 ton DDGS/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.24 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.24 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 2.0 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

Pollutant: Single HAP

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

Pollutant: Total HAP

Emission Limit(s): 0.12 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

## **Operational Limits & Requirements**

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

### **Operating Limits**

- A. CORN, LP (Plant No. 99-05-003) is limited to loading/shipping out 214,620 tons of DDGS per rolling 12-month period.
- B. No more than 50 percent of the DDGS produced at CORN, LP (Plant No. 99-05-003) shall be transferred or shipped to Gold Eagle Cooperative (Feed Mill) – Goldfield.
- C. The Baghouse (CE90) differential pressure drop shall be maintained between 0.1 and 8 inches water column.
- D. Maintain Baghouse (CE90) according to manufacturer specifications and maintenance schedule.
- E. The owner or operator shall conduct visible emissions observation (opacity) on emission point (S90) once per week.

### **Reporting and Recordkeeping**

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

- A. Record on a monthly basis, the amount of DDGS loaded out from CORN, LP in tons. Calculate and record rolling 12-month totals.
- B. Record on a daily basis, the total amount of DDGS delivered from CORN, LP to Gold Eagle Cooperative (Feed Mill) – Goldfield in tons.
- C. Record on a monthly basis, the total amount of DDGS delivered from CORN, LP to Gold Eagle Cooperative (Feed Mill) – Goldfield in tons. Calculate and record rolling 12-month totals.
- D. Calculate and record on a monthly basis, the percent of DDGS delivered from CORN, LP to Gold Eagle Cooperative (Feed Mill) – Goldfield using the rolling 12-month totals.
- E. The owner or operator shall collect and record the pressure drop across the Baghouse (CE-90), in inches of water, at least once per calendar day. If the pressure drop across the Baghouse (CE-90) falls outside the range specified in Item C in **Operating Limits**, the owner or operator shall investigate the Baghouse (CE-90) and make corrections to Baghouse (CE-90). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE-90) is not in operation.
- F. If the owner or operator observes visible emissions from EP-S90, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.
- G. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Baghouse (CE-90).

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 60

Stack Opening, (inches, dia.): 14

Exhaust Flow Rate (scfm): 1,900

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-116-S5

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

**Monitoring Requirements**

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

**Stack Testing:**

Pollutant – VOC, Single HAP, Total HAP

CORN, LP shall conduct stack testing for VOC, Single HAP, Total HAP, particulate matter and visible emissions observation on EP-S90 at least once every 36 months with a minimum of six months between testing periods. The most recent compliance test shall represent emissions from EP-S90. Last performance test on EP-S90 was conducted 06/04/2009 and demonstrated compliance.

Test Method – see the table below

<b>Pollutant</b>	<b>Test Run Time</b>	<b>Test Method</b>
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
Total HAP <sup>(1)</sup>	1 hour	40 CFR 60, Appendix A, Method 18 or 320
Single HAP <sup>(1)</sup>	1 hour	According to the IDNR Approved Method

- (1) Acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. All HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.

Authority for Requirement – Iowa DNR Construction Permit 05-A-116-S5

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

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

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

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

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

*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: EP-S110**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P110  
Emissions Control Equipment ID Number: None  
Emissions Control Equipment Description: None  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P110  
Emission Unit Description: 300 hp Fire Pump  
Raw Material/Fuel: Diesel  
Rated Capacity: 14.2 gal/hr

**Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.90 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.90 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2  
567 IAC 23.3(2) "a"

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

Emission Limit(s): 0.41 lb/hr; 2.5 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2  
567 IAC 23.3(3) "b" (2)

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

Emission Limit(s): 11.20 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.89 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 2.40 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2

### **Operational Limits & Requirements**

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

#### **Operating Limits**

- A. Diesel Fire Pump (EU-P110) is limited to firing on diesel fuel with a maximum sulfur content of 0.2 percent by weight.
- B. Diesel Fire Pump (EU-P110) shall not operate more than 50 hours per rolling twelve-month period.

#### **Reporting and Recordkeeping**

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

- A. Record on a monthly basis, the number of hours Diesel Fire Pump (EU-P110) is operated. Calculate and record rolling 12-month totals.
- B. Retain fuel supplier's certification of the sulfur content contained within diesel fuel fired in Diesel Fire Pump (EU-P110) as a percent by weight.

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2

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

These emission units are affected reciprocating internal combustion engines, located at an area source, that are subject to 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 63.6590(a)(1)(iii) these compression ignited, emergency engines are existing stationary RICE as they were constructed prior to June 12, 2006.

The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart ZZZZ. Below is a general outline of requirements for this subpart. For a full explanation of all requirements and to view the subpart in its entirety, please refer to the web link in Appendix A.

#### **Compliance Date**

Per §63.6595 you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.

#### **Operating Conditions 40 CFR §63.6603(a)**

- 1. Change oil and filter every 500 hours of operation or annually, whichever comes first.
- 2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first and
- 3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Maintenance Requirements 40 CFR §63.6625

1. Must operate and maintain the stationary RICE according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
2. If you operate an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
3. You must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c and 2d to the subpart apply.

Operating Limits 40 CFR §63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. Maintenance and readiness checks are limited to 100 hours per year.
4. You may operate your emergency stationary RICE up to 50 hours per year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. See 40 CFR §63.6640(f)(4) for additional information.

Reports & Records

See 40 CFR §63.6650 and §63.6655 for a complete list and description.

An initial notification is not required per 40 CFR §63.6645(a)(5)

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

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 8

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): 1,740

Exhaust Temperature (°F): 770

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 05-A-111-S2

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-S120**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P120  
Emissions Control Equipment ID Number: CE-120  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P120  
Emission Unit Description: Ash Storage Bin  
Raw Material/Fuel: Coal Combustion Ash  
Rated Capacity: 240 ton/bin for Ash Storage Bin; 1 ton of ash/hr for Pneumatic Ash Conveying & Handling

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-122-S6  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-122-S6

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-122-S6  
567 IAC 23.3 (2) "a"

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

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

##### **Operating Limits**

- A. The baghouse (CE-120) differential pressure drop shall be maintained between 0.1 and 10 inches water column.
- B. Maintain the baghouse (CE120) according to manufacturer specifications and maintenance schedule.
- C. The owner or operator shall conduct visible observation (opacity) on emission point (EP-S120) once per week.

## **Reporting and Recordkeeping**

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

- A. The owner or operator shall collect and record the pressure drop across the baghouse (CE-120), in inches of water, at least once per calendar day. If the pressure drop across the baghouse (CE-120) falls outside the range specified in **Operating Limits**, the owner or operator shall investigate the baghouse (CE-120) and make corrections to baghouse (CE-120). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE-120) is not in operation.
- B. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of baghouse (CE-120).
- C. If the owner or operator observes visible emissions from S120, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-122-S6

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 75

Stack Opening, (inches): 8×10

Exhaust Flow Rate (scfm): 1500

Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 05-A-122-S6

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

**Monitoring Requirements**

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

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

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

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

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

*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: EP-S130**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P130

Emissions Control Equipment ID Number: CE-130

Emissions Control Equipment Description: Baghouse

Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P130

Emission Unit Description: Coal Receiving and Storage

Raw Material/Fuel: Coal

Rated Capacity: Storage Capacity 1,100 ton/bin;

Mechanically (bucket elevator) Coal Handling & Conveying 300 ton of coal/hr

Coal Conditioning 40 ton of coal/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: Iowa DNR Construction Permit 05-A-118-S5

40 CFR Part 60 Subpart Y

567 IAC 23.1(2) "v"

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-118-S5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.10 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-118-S5

567 IAC 23.3 (2) "a"

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

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

#### **Operating Limits**

- A. Maintain Baghouse (CE130) according to manufacturer specifications and maintenance schedule.
- B. The owner or operator shall conduct visible emissions observation (opacity) on emission point (S130) once per week.
- C. The Baghouse (CE130) differential pressure drop shall be maintained between 0.1 and 10 inches water column.

## **Reporting and Recordkeeping**

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

- A. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Baghouse (CE130).
- B. The owner or operator shall collect and record the pressure drop across the Baghouse (CE130), in inches of water, at least once per calendar day. If the pressure drop across the Baghouse (CE130) falls outside the range specified in Condition 14b, the owner or operator shall investigate the Baghouse (CE130) and make corrections to Baghouse (CE130). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE130) is not in operation.
- C. If the owner or operator observes visible emissions from S130, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-118-S5

## **NSPS and NESHAP Applicability**

- A. Coal Storage, Handling, Conveying & Sizing Equipment (EP-S130) are subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart Y-*Standards of Performance for Coal Preparation Plants* as specified in 40 CFR Part 60 §60.250
- B. Coal Storage, Handling, Conveying & Sizing Equipment (EP-S130) are subject to the requirements/conditions of NSPS Subpart A-*General Provisions*.

Authority for Requirement: Iowa DNR Construction Permit 05-A-118-S5

## **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 104

Stack Opening, (inches): 11×15

Exhaust Flow Rate (scfm): 1,000

Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 05-A-118-S5

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

**Monitoring Requirements**

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

**Opacity Monitoring:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point in operation and record the reading. The records shall be maintained for 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 cause a change in the visible emissions reading, then a Method 9 reader will be brought in to determine if a violation has occurred. 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.

Maintain a written record of the observation and any action resulting from the inspection.

Authority for Requirement: 567 IAC 22.108(14)

**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: EP-S140**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P140  
Emissions Control Equipment ID Number: CE-140  
Emissions Control Equipment Description: Baghouse  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P140  
Emission Unit Description: Lime/Limestone Storage and Handling  
Raw Material/Fuel: Lime/Limestone  
Rated Capacity: Storage Capacity 59 tons  
Pneumatically/Mechanically (bucket elevator) Limestone Handling & Conveying 300 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-117-S5  
567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 0.06 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-117-S5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 0.06 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-117-S5  
567 IAC 23.3 (2) "a"

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

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

#### **Operating Limits**

- A. Maintain Baghouse (CE-140) according to manufacturer specifications and maintenance schedule.
- B. The Baghouse (CE-140) differential pressure drop shall be maintained between 0.1 and 10 inches water column.
- C. The owner or operator shall conduct visible observation (opacity) on emission point (EP-S140) once per week.

**Reporting and Recordkeeping**

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

- A. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Baghouse (CE-140).
- B. The owner or operator shall collect and record the pressure drop across the Baghouse (CE-140), in inches of water, at least once per calendar day. If the pressure drop across the Baghouse (CE-140) falls outside the range specified in Item B in **Operating Limits**, the owner or operator shall investigate the Baghouse (CE-140) and make corrections to Baghouse (CE-140). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE-140) is not in operation.
- C. If the owner or operator observes visible emissions from EP-S140, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.

Authority for Requirement: Iowa DNR Construction Permit 05-A-117-S5

**Emission Point Characteristics**

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

- Stack Height, (ft, from the ground): 44
- Stack Opening, (inches, dia.): 8×10
- Exhaust Flow Rate (scfm): 700
- Exhaust Temperature (°F): Ambient
- Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 05-A-117-S5

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

**Monitoring Requirements**

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

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

*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: EP-S150**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P150  
Emissions Control Equipment ID Number: CE-150  
Emissions Control Equipment Description: Water Fogging System  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-P150  
Emission Unit Description: Coal/Limestone Receiving/Unloading & Flyash Loading  
Raw Material/Fuel: Coal/Limestone/Flyash  
Rated Capacity: Lime/Limestone Receiving/Loading 300 tons of coal or limestone/hr  
Ash Loadout 150 tons of ash /hr

**Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-124-S4  
567 IAC 23.3(2) "d"

<sup>(1)</sup>An exceedance of the indicator opacity of "No Visible Emissions" observed outside the Coal/Limestone Unloading and Ash Loading Building will require the owner/operator to promptly investigate Coal/Limestone Unloading and Flyash Loading operations and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 1.02 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-124-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf; 1.32 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-124-S4  
567 IAC 23.3 (2) "a"

**Operational Limits & Requirements**

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

**Operating Limits**

- A. CORN, LP is limited to receiving/processing a maximum of 109,500 tons of coal per rolling 12-month period.
- B. CORN, LP is limited to receiving/processing a maximum of 2,400 tons of lime/limestone per rolling 12-month period.
- C. CORN, LP is limited to loading out a maximum of 7,900 tons of ash (spent lime/limestone & flyash) per rolling 12-month period.

- D. CORN, LP is limited to operating Coal, Limestone/Lime Receiving/Unloading Area for a maximum of 3,650 hours per rolling 12-month period.
- E. CORN, LP is limited to operating Ash Loadout Area for a maximum of 3,650 hours per rolling 12-month period.
- F. The building being used for coal and limestone / lime receiving and fly ash (ash) load out is limited to no visible emissions exiting from the building at any time during unloading of coal or limestone / lime and fly ash (ash) loadout times.

**Reporting and Recordkeeping**

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

- A. Record on a monthly basis, the amount of coal received/processed at CORN, LP in tons. Calculate and record rolling 12-month totals.
- B. Record on a monthly basis, the amount of limestone/lime received/processed at CORN, LP in tons. Calculate and record rolling 12-month totals.
- C. Record on a monthly basis, the amount of ash loaded out at CORN, LP in tons. Calculate and record rolling 12-month totals.
- D. Record on a daily basis when the coal and limestone/lime receiving equipment is operated by recording the startup and shutdown times.
- E. Record on a monthly basis, the total hours coal and limestone receiving/unloading equipment are operated. Calculate and record rolling 12-month totals.
- F. Record on a daily basis when the ash load out equipment is operated by recording the startup and shutdown times.
- G. Record on a monthly basis, the total hours ash loadout equipment are operated. Calculate and record rolling 12-month totals.
- H. Record for each coal and limestone / lime truck or rail unloading event if visible emissions are present exiting from the building. If visible emissions are observed, detail and record corrective actions taken by owner or operator to eliminate visible emissions observed during unloading.
- I. Record for each fly ash (ash) truck or rail load out event if visible emissions are present exiting from the building being used for load out of the product. If visible emissions are observed, detail and record corrective actions taken by owner or operator to eliminate visible emissions observed during unloading.

Authority for Requirement: Iowa DNR Construction Permit 05-A-124-S4

**Emission Point Characteristics**

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

Coal and limestone receiving/unloading and flyash loading operations are enclosed within a building or structure. The building dimensions are 127 feet long by 20 feet wide and 25 feet tall with two door openings on either side of the structure. The door openings are 12 feet wide by 16 feet high.

Authority for Requirement: Iowa DNR Construction Permit 05-A-124-S4

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the

emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

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

**Stack Testing:**

Pollutant – Opacity <sup>(1)</sup>

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

Authority for Requirement – Iowa DNR Construction Permit 05-A-124-S4

CORN, LP shall conduct stack testing for visible emissions observation on EP-S150 at least once every 36 months with a minimum of six months between testing periods. The most recent compliance test shall represent emissions from EP-S150. Last performance test on S150 was conducted on 06/03/2009 and demonstrated compliance.

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

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

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

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

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

*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: EP-F81**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F81  
Emissions Control Equipment ID Number: None  
Emissions Control Equipment Description: None  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-F81  
Emission Unit Description: Fugitive Dust Emission from Traffic  
Raw Material/Fuel: Silt  
Rated Capacity: NA

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): See footnote (1) below

Authority for Requirement: Iowa DNR Construction Permit 05-A-108-S4  
567 IAC 23.3(2) "c" (1)

<sup>(1)</sup>The owner/operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond lot line of the property.

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 3.78 ton/yr <sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-108-S4

Pollutant: Particulate Matter (PM)

Emission Limit(s): 18.86 ton/yr <sup>(3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 05-A-108-S4

<sup>(2),(3)</sup>Particulate emission limit based on an average vehicle weight of 29.0 tons, silt content of 3.4 grams per square meter, and all raw material/product is shipped or received by truck. See "Operating Limits" and "Reporting and Recordkeeping" for compliance demonstration with particulate emission limit.

### **Operational Limits & Requirements**

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

#### **Operating Limits**

- A. Haul truck loads shall be enclosed or covered.
- B. All haul roads at the facility shall be paved.
- C. Cleaning of the haul roads shall be done at least once per week, weather permitting. All sweeping must be completed using an Elgin Crosswind GE Sweeper or functionally equivalent sweeper type. If sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than

35° F (1.7° C) or conditions due to weather, could create hazardous driving conditions, then the sweeping shall be postponed and accomplished as soon after the scheduled date as the conditions preventing the sweeping have abated.

- D. Sweeping need not occur when a rain gauge located at the site indicates that at least 0.2 inches of precipitation has occurred within the preceding 24-hr time period or the paved road(s) will not be used on a given day. A required sweeping event may be replaced by a rainfall event of greater than 0.2 inches.
- E. Traffic on the haul roads shall not exceed 20 mph. The speed limit shall be posted on all haul roads.
- F. The haul road surface silt loading shall not exceed 3.4 g/m<sup>2</sup>.

**Reporting and Recordkeeping**

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

- A. Record the frequency of cleaning performed on the haul roads. If the roads are not cleaned due to weather, a written record must be kept on site outlining the conditions.
- B. Record the type of cleaning (i.e. sweeping, washing, etc.) performed on the haul road. If sweeping is performed an Elgin Crosswind GE Sweeper or functionally equivalent sweeper type shall be used.
- C. Performance testing on the haul road surface silt loading shall be completed on a quarterly basis. For each performance test, silt loading sampling shall be done for at least 3 different locations. The three sampled locations shall then be averaged to determine the silt loading average results. After the first four quarters of testing the data shall be analyzed by the facility to determine whether or not further testing is required. If the facility determines no further testing is necessary, the facility shall request in writing, by providing the summary of the test results that have lead them to their determination to not conduct further testing, to the Department that no further silt loading tests be completed. The Department shall review the analysis and determine if further testing will be completed or not and send in writing the documentation of further testing or not.

Authority for Requirement: Iowa DNR Construction Permit 05-A-108-S4

**Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-F120**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F120  
Emissions Control Equipment ID Number: None  
Emissions Control Equipment Description: Leak Detection and Repair  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-F120  
Emission Unit Description: VOC Emission from Equipment Leaks  
Raw Material/Fuel: VOC  
Rated Capacity: NA

### **Applicable Requirements**

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

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

Pollutant: Single HAP  
Emission Limit(s): 0.80 ton/yr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-110-S1

Pollutant: Total HAP  
Emission Limit(s): 0.91 ton/yr  
Authority for Requirement: Iowa DNR Construction Permit 05-A-110-S1

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

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

#### **Operating Limits**

- A. The component count shall be documented as to the number and types of components used. Components include but are not limited to valves, pumps, compressor seals, flanges, etc.
- B. The owner or operator shall follow the applicable standards of NSPS Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.

#### **Reporting and Recordkeeping**

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

- A. Calculate and record the Single HAP and Total HAP emissions based on the documented component count. Update annualized Single HAP and Total HAP emission calculations as the component count varies. Emission factors shall be based on EPA document 453/R-95-017 entitled Protocol for Equipment Leak Emission Estimates.
- B. The owner or operator shall keep records as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.

Authority for Requirement: Iowa DNR Construction Permit 05-A-110-S1

**NSPS and NESHAP Applicability**

This emission point is subject to NSPS Subpart A – General Provisions and NSPS Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry as specified in 40 CFR Part 60 §60.480.

Authority for Requirement: Iowa DNR Construction Permit 05-A-110-S1

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-F160**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F160  
Emissions Control Equipment ID Number: None  
Emissions Control Equipment Description: None  
Continuous Emissions Monitors ID Numbers: None

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Emission Unit vented through this Emission Point: EU-F160  
Emission Unit Description: Wet Distillers Grains Storage  
Raw Material/Fuel: Wet Distillers Grains  
Rated Capacity: NA

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): See footnote (1) below

Authority for Requirement: Iowa DNR Construction Permit 09-A-130  
567 IAC 23.3(2) "c" (1)

<sup>(1)</sup>The owner/operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond lot line of the property.

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

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

#### **Operating Limits**

- A. CORN, LP is limited to annual wet cake production of 51, 150 tons per calendar year to avoid initial compliance testing for VOC and HAP emissions. Upon such time in which CORN, LP exceeds annual wet cake production of 51, 150 tons per year (wet basis), CORN, LP is required to conduct initial compliance testing on VOC and HAP emissions from Wet Cake Production/storage (EU-F160). Once initial compliance threshold is exceeded, CORN, LP is required to notify the Department within 30 days and request guidance on how initial compliance testing for VOC and HAPs shall be conducted on Wet Cake production/storage (EU-F160).

#### **Reporting and Recordkeeping**

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

- A. Record on annual calendar basis, the amount of Wet Cake produced at CORN, LP in tons on a wet basis. CORN, LP shall begin maintaining Wet Cake production records after the date of issuance of this air construction permit.

Authority for Requirement: Iowa DNR Construction Permit 09-A-130

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

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

### G1. Duty to Comply

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

### G2. Permit Expiration

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

### G3. Certification Requirement for Title V Related Documents

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

### G4. Annual Compliance Certification

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

### G5. Semi-Annual Monitoring Report

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

#### **G6. Annual Fee**

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
  - a. Form 1.0 "Facility Identification";
  - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
  - c. Form 5.0 "Title V annual emissions summary/fee"; and
  - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
  - a. Form 1.0 "Facility Identification";
  - b. Form 5.0 "Title V annual emissions summary/fee";
  - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

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

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

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

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

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

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

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

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

4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

**G10. Recordkeeping Requirements for Compliance Monitoring**

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

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

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

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

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

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

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

**G13. Hazardous Release**

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

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

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a

manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

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

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

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

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

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

limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

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

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

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

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

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

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

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

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

- a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
  - e. The changes comply with all applicable requirements.
  - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
    - i. A brief description of the change within the permitted facility,
    - ii. The date on which the change will occur,
    - iii. Any change in emission as a result of that change,
    - iv. The pollutants emitted subject to the emissions trade
    - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
    - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
    - vii. Any permit term or condition no longer applicable as a result of the change.
- 567 IAC 22.110(1)*

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

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

##### 1. Administrative Amendment.

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

##### 2. Minor Title V Permit Modification.

- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
  - i. Do not violate any applicable requirement;
  - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
  - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
  - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
  - v. Are not modifications under any provision of Title I of the Act; and
  - vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
  - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
  - ii. The permittee's suggested draft permit;
  - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
  - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable

requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

### 3. Significant Title V Permit Modification.

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

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

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

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

#### **G20. Asbestos**

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

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

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

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

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

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

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

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

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

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the

standards for recycling and recovery equipment pursuant to § 82.158.

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

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

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

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

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

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

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

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

**G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- a. Such applicable requirements are included and are specifically identified in the permit; or
- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
- d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

**G26. Severability**

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

**G27. Property Rights**

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

**G28. Transferability**

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

**G29. Disclaimer**

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

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

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

department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance. Stack test notifications, reports and correspondence shall be sent to:

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

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

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

**G31. Prevention of Air Pollution Emergency Episodes**

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

**G32. Contacts List**

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

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

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

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

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

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

**Field Office 2**  
2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 3**  
1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 4**  
1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 5**  
7900 Hickman Road, Suite #200  
Windsor Heights, IA 50324  
(515) 725-0268

**Field Office 6**  
1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

**Polk County Public Works Dept.**  
Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

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

## V. Appendices:

A. 40 CFR Part 60 Subpart A – General Provisions

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

B. 40 CFR Part 60 Subpart Y – Standards of Performance for Coal Preparation Plants

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

C. 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

<http://www.epa.gov/ttn/atw/combust/boiler/fr13jn07.pdf>

D. 40 CFR Part 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced After July 23, 1984

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

E. 40 CFR Part 60 Subpart DD – Standards of Performance for Grain Elevators

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

F. 40 CFR Part 60 Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

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

G. 40 CFR Part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

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

H. 40 CFR Part 63 Subpart JJJJJ – National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.

<http://www.ecfr.gov/cgi-bin/text-idx?SID=6519d111dcc2d3be10209406b74d3c45&node=40:15.0.1.1.1.23&rgn=div6>