# Iowa Department of Natural Resources Title V Operating Permit

Name of Permitted Facility: Absolute Energy LLC

Facility Location: 1372 State Line Rd., Saint Ansgar, IA 50472

**Air Quality Operating Permit Number: 13-TV-007R2** 

Expiration Date: 01/15/2029

Permit Renewal Application Deadline: 07/15/2028

**EIQ Number: 92-6948** 

Facility File Number: 66-10-001

### **Responsible Official**

Name: Mr. Tyler Schwarck

**Title: EHS Manager** 

Mailing Address: 1372 State Line Rd., Saint Ansgar, IA 50472

Phone #: (641) 326-2220

### **Permit Contact Person for the Facility**

Name: Mr. Tyler Schwarck

**Title: EHS Manager** 

Mailing Address: 1372 State Line Rd., Saint Ansgar, IA 50472

Phone #: (641) 326-2220

Marrie Stein

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

01/16/2024

Marnie Stein Supervisor of Air Operating Permits Section Date

### **Table of Contents**

I. Facility Description and Equipment List
II. Plant - Wide Conditions6
III. Emission Point Specific Conditions
IV. General Conditions
G1.Duty to Comply
G2.Permit Expiration
G3.Certification Requirement for Title V Related Documents
G4. Annual Compliance Certification
G5.Semi-Annual Monitoring Report
G6.Annual Fee
G7.Inspection of Premises, Records, Equipment, Methods and Discharges
G8. Duty to Provide Information
G9.General Maintenance and Repair Duties
G10. Recordkeeping Requirements for Compliance Monitoring
G11. Evidence used in establishing that a violation has or is occurring.
G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance
Certification
G13. Hazardous Release
G14. Excess Emissions and Excess Emissions Reporting Requirements
G15. Permit Deviation Reporting Requirements
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP
Regulations
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V
Permit Modification
G18. Duty to Modify a Title V Permit
G19. Duty to Obtain Construction Permits
G20. Asbestos
G21. Open Burning
G22. Acid Rain (Title IV) Emissions Allowances
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements
G24. Permit Reopenings
G25. Permit Shield
G26. Severability
G27. Property Rights
G28. Transferability
G29. Disclaimer
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
G31. Prevention of Air Pollution Emergency Episodes
G32. Contacts List
V. Appendix: Links to NSPS and NESHAP Regulations124

# **Abbreviations**

acfm	actual cubic feet per minute
CFR	Code of Federal Regulation
	control equipment
	continuous emission monitor
°F	degrees Fahrenheit
EIQ	emissions inventory questionnaire
EP	
EU	emission unit
gr./dscf	grains per dry standard cubic foot
	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
	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
<b>Pollutants</b>	
	particulate matter
	particulate matter ten microns or less in diameter
SO <sub>2</sub>	
NO <sub>x</sub>	
	volatile organic compound
CO	carbon monoxide
HAP	hazardous air pollutant

## I. Facility Description and Equipment List

Facility Name: Absolute Energy LLC Permit Number: 13-TV-007R2

Facility Description: Industrial Organic Chemicals/Ethanol Production (SIC 2869)

### **Equipment List**

Emission	Emission		DNR
Point	Unit	<b>Emission Unit Description</b>	Construction
Number	Number	•	Permit Number
	EU-P10A	Dryer A	
	EU-P10B	Dryer B	
EP-S10	EU-P10C	Dryer C	06-A-594-S10
	EU-P10D	Dryer D	
	EU-S10	Ethanol Process	
EP-S20	P20A – P20G	Grain Receiving, Storage, Handling &Loadout	06-A-595-S5
EP-S30	P30C – P30F	Hammermills #1-4	06-A-596-S6
EP-S30d	P30A – P30R	Milling System	22-A-272
EP-S30e	EU-S30e-1	Hammermill	22-A-273
EP-S30f	EU-S30f-1	Hammermill	22-A-274
EP-S40	EU-P40	Ethanol Production/Fermentation	06-A-597-S8
EP-F60	EU-F60	VOC Equipment Leaks	06-A-602-S4
EP-S70	EU-P70	DDGS Cooling	06-A-598-S7
EP-F80	EU-P80	Cooling Tower	06-A-609-S1
EP-S90	EU-P90	DDGS Loadout	06-A-599-S5
EP-F100	EU-F100	Fugitive Emissions from Internal Plant Roads	06-A-603-S6
EP-S110	EU-P110	Emergency Fire Water Pump	06-A-610-S5
EP-F120A	EU-P120A	1.3 Million Bushel Grain Storage Pile	09-A-646-S2
EP22	EP22	Denatured Ethanol Loadout (Truck & Rail)	06-A-601-S8
T61	T61	Denatured Ethanol Storage Tank #1	06-A-604-S3
T62	T62	Denatured Ethanol Storage Tank #2	06-A-605-S3
T63	T63	200 Proof Ethanol Storage Tank	06-A-606-S3
T64	T64	Denaturant Storage Tank	06-A-607-S4
T64B	T64B	Fuel-Grade Gasoline Storage Tank	13-A-340-S1
T65	T65	190 Proof Ethanol Storage Tank	06-A-608-S3
EP-B10	EU-B10	New Package Boiler 1	17-A-526-S1
EP-B11	EU-B11	New Package Boiler 2	17-A-527-S1

# **Insignificant Activities Equipment List**

<b>Insignificant Emission</b>	on Insignificant Emission Unit Description	
Unit Number		
GRFUG	Grain Fugitives (Unloading and Loading)	
T66	Corrosion Inhibitor Tank	
TF-2101	Cook Water Tank Vent	
TF-2401	Liquefaction Tank #1	
TF-2402	Liquefaction Tank #2	
TF-2403	Liquefaction Tank #3	
TF-6101	Whole Stillage Tank	
TF-6801	Thin Stillage Tank	
TF-6810	Syrup Tank Vent	
NA	Corn Oil Loading	
T4	Corn Oil Tank	
T5	Corn Oil Tank	
BH1	CPV3 Baghouse #1 for the 1.1 MM Bushel Storage Bin & Associated	
ВП1	Conveyors	
BH2	CPV3Baghouse #2 for the 1.1 MM Bushel Storage Bin & Associated	
<b>D</b> H2	Conveyors	

### II. Plant-Wide Conditions

Facility Name: Absolute Energy LLC

Permit Number: 13-TV-007R2

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

#### **Permit Duration**

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

Commencing on: 01/16/2024 Ending on: 01/15/2029

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

#### **Emission Limits**

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

Opacity (visible emissions): 40% opacity

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

Sulfur Dioxide (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 on or 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"

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

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

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

### 40 CFR 60 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are EP-S10, EP-B10, EP-B11, EP-F60, EP-S110, T61, T62, T63, T64, T64B, and T65.

See Appendix for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart A

567 IAC 23.1(2)

### 40 CFR 60 Subpart Db Requirements

This facility is subject to Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The affected units are EP-S10, EP-B10, and EP-B11 See Appendix for the link of the Standard.

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 Kb Requirements

This facility is subject to 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. The affected units are T61, T62, T63, T64, T64B, and T65.

See Appendix for the link 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 VV Requirements

This facility is subject to 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. Equipment VOC leaks have been accounted for in emission point EP-F60 for the facility. See Appendix for the link 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 60 Subpart IIII Requirements**

This facility is subject to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The affected unit is EP-S110.

See Appendix for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 60 Subpart IIII

567 IAC 23.1(2)"yyy"

### 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 link 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 BBBBBB Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. The affected units are EP22, EP-F60, and T64B.

See Appendix for the link of the Standard.

Applicable requirements are incorporated in the Emission Point Specific conditions.

Authority for Requirements: 40 CFR 63 Subpart BBBBBB

567 IAC 23.1(4) "eb"

### **III. Emission Point-Specific Conditions**

Facility Name: Absolute Energy LLC Permit Number: 13-TV-007R2

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

### **Associated Equipment**

	Emission Unit	Control	D 16 11	D 10 10
EU	Description	Equipment	Raw Material	Rated Capacity
EU-P10A	Dryer A	CE 10a: Regenerative	Natural Gas	45 MMBtu/hr
EU-P10B	Dryer B	Thermal Oxidizer	Natural Gas	45 MMBtu/hr
EU-P10C	Dryer C	CE 10b: Regenerative	Natural Gas	45 MMBtu/hr
EU-P10D	Dryer D	Thermal Oxidizer	Natural Gas	45 MMBtu/hr
S10-COS1	Corn Oil Skid #1		Corn Oil	12 gal/min
S10-COS2	Corn Oil Skid #2		Corn Oil	12 gal/min
S10-COS3	Corn Oil Skid #3		Corn Oil	12 gal/min
	Corn Oil Tank #1		Corn Oil	20,000 gallons
	Corn Oil Tank #2		Corn Oil	20,000 gallons
	MSW Energy		NA	NA
	Reconvery System		NA	INA
	SHARK System		NA	NA
	Flash Tank		Mash	4,500 gallons
	Slurry Tank #1		Mash	25,000 gallons
	Slurry Tank #2		Mash	25,000 gallons
	Beer Column		Ethanol	2,000 gal/min
	Side Stripper		Ethanol	400 gal/min
	Rectifier Column	CE 10a: Regenerative	Ethanol	700 gal/min
	190 Proof Condenser	Thermal Oxidizer OR	Ethanol	408 gal/min
	Molecular Sieves 1-6	CE 10b: Regenerative	Ethanol	372 gal/min
EU-S10	Regen Tank	Thermal Oxidizer	Ethanol	1,240 gallons
	Centrate Tank #1		Mash	1,690 gallons
	Centrate Tank #2		Mash	1,690 gallons
	Evaporators 1-8		Mash	18,000 ft <sup>2</sup>
	Centrifuge #1		DDGS	400 gal/min
	Centrifuge #2		DDGS	400 gal/min
	Centrifuge #3		DDGS	400 gal/min
	Centrifuge #4		DDGS	400 gal/min
	Centrifuge #5		DDGS	400 gal/min
	Centrifuge #6		DDGS	400 gal/min
	Reflux Tank		Ethanol	1,240 gallons
	Yeast Tank #1		Mash	25,000 gallons
	Yeast Tank #2		Mash	25,000 gallons
	Yeast Tank #3		Mash	25,000 gallons

<sup>\*</sup> As of the date of permit issuance, construction has not yet commenced on the Corn Oil and Yeast Tanks. The facility will notify the Department once construction has begun.

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-594-S10

567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter

Emission Limit(s): 10.0 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-594-S10

567 IAC 23.4(7)

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

Emission Limit(s): 8.35 lb/hr; 500 ppmv

Authority for Requirement: DNR Construction Permit 06-A-594-S10

567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 21.22 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-594-S10

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 4.17 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-594-S10

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 19.07 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-594-S10

Pollutant: Acetaldehyde Emission Limit(s): 0.28 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-594-S10

Pollutant: Single HAP

Emission Limit(s): 0.50 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-594-S10

Pollutant: Total HAPs

Emission Limit(s): 1.60 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-594-S10

### Operational Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be available on-site for a minimum for five (5) years and shall be available for inspection by the Department. Record shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The facility-wide DDGS production shall not exceed 487,500 tons per rolling 12-month period. On a monthly basis, the owner or operator shall:
  - i. Record the amount of DDGS produced, in tons, at this facility in the past month; and
  - ii. Calculate and record the rolling 12-month total amount of DDGS produced, in tons, at this facility.
- B. Each dryer and thermal oxidizer shall combust only natural gas and/or process off-gases. The owner or operator shall keep a record of all fuel types combusted in the dryers and thermal oxidizers.
- C. Each of the thermal oxidizers shall maintain a temperature (3 hour average) during operation of within minus 50 degrees Fahrenheit of the average temperature of the oxidizer recorded during a previous performance test demonstrating compliance with the emission limits, and shall be operated at all times the dryers and/or distillation equipment is being used.
- D. The owner or operator shall keep hourly records of the operating temperatures of each thermal oxidizer, and record all three-hour periods (during actual operations) during which the average temperature of either (regenerative) thermal oxidizer is within minus 50 degrees Fahrenheit of the average temperature of the oxidizer during a previous performance test demonstrating compliance with the emission limits.
- E. The owner or operator shall operate and maintain the (regenerative) thermal oxidizers according to the facility's operation and maintenance plan. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the (regenerative) thermal oxidizers. This log shall include, but is not necessarily limited to:
  - i. The date any inspection and/or maintenance was performed on the thermal oxidizers;
  - ii. Any issues identified during the inspection;
  - iii. Any issues identified during the maintenance activities; and
  - iv. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 06-A-594-S10

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 125

Stack Opening, (inches, dia.): 121 Exhaust Flow Rate (acfm): 91,330 fExhaust Temperature (°F): 310

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-594-S10

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

### **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – VOC & HAP

Test Method – see the table below

Pollutant	Frequency	Test Method
VOC <sup>(1)</sup>	2 22000(3)	40 CFR 60, Appendix A, Method 18 or
VOC	3 years <sup>(3)</sup>	40 CFR 63, Appendix A, Method 320
$HAP^{(1).(2)}$	3 years <sup>(3)</sup>	40 CFR 60, Appendix A, Method 18 or
	3 years	40 CFR 63, Appendix A, Method 320

Authority for Requirement: DNR Construction Permit 06-A-594-S10

- <sup>(1)</sup> Stack testing shall be conducted once every three years with a minimum of 6 months between testing. If a stack test exceeds 90% of appropriate emission limitation, then testing shall revert to annual until 3 consecutive tests are less than 90% of the appropriate emissions limitation. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst case scenario.
- (2) Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde, and methanol, any HAP whose emissions are below the detection limit shall be assumed to be zero.
- $^{(3)}$  The previous test was conducted and passed on on 06/21/2022. The next test will be completed by 06/30/2025.

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🛛 No 🗌

Authority for Requirement: 567 IAC 22.108(3)

### COMPLIANCE ASSURANCE MONITORING PLAN

S10 Regenerative Thermal Oxidizers for Control of VOC and HAPs

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Two (2) regenerative thermal oxidizers, approved in 2017 for

construction, each with a maximum heat input capacity of 18 MMBtu/hr, using natural gas and process waste gases from the

DDGS dryers as fuels, and exhausting to stack S10.

Identification: EP-S10

EU-S10

Emission Source: Permit Reference: 13-TV-007R1

06-A-594-S9

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. Applicable Regulations, Emission Limits and Monitoring Requirements

Regulation: DNR Construction Permit 06-A-594-S9

**CAM Emission Limits:** 

4.17 lb/hr volatile organic compounds (VOC)

7.00 tons per year of total hazardous air pollutants (HAPs)

0.50 lb/hr single HAP 0.28 lb/hr Acetaldehyde

c. <u>Control Technology</u>

Control Equipment ID: CE-C10A; CE-C10B

CE Description: Natural gas-fired regenerative thermal oxidizers for the

destruction of VOC, total and single HAPs.

### II. Monitoring Approach

	Indicator #1
I. Indicator	3-hr average temperature for each regenerative thermal oxidizer
Monitoring Approach	Temperature is measured continuously and recorded hourly within the Distributed Control System (DCS).
II. Indicator Range	3-hr average temperature shall be maintained within minus 50-degree F of a previous compliance stack test demonstrating compliance.
III. Performance Criteria	
A. Data Representativeness	Temperature is measured at the transition between combustion and convection by a thermocouple.
B. Verification and Operational Status	Not applicable.
C. QA/QC Practice and Criteria	The DCS continuously tracks and records data on an electronic basis. The DCS is operated 24-hours per day.
D. Monitoring Frequency	Temperature is monitored continuously electronically, and is recorded either electronically or manually.
E. Data Collection Procedures	Temperature Data will be electronically recorded and an average 3-hour temperature will be electronically calculated and recorded. No data will be recorded when the thermal oxidizer(s) is not in operation.
F. Averaging Period	3-hour average.

#### III. Justification

### a. Background

DDGS Dryers 1-4 are controlled by Regenerative Thermal Oxidizer 1 and Regenerative Thermal Oxidizer 2 (CE-C10A) and (CE-C10B). The exhaust from both regenerative thermal oxidizers is routed to EP-S10. In 2017 construction permits were obtained to modify the control technology from recuperative thermal oxidizers (TOs) to regenerative thermal oxidizers (RTOs). A subsequent construction permit was obtained in 2021 to include the corn oil skid, AHR system, and clarified centrate tanks under the control of S10.

### b. Rationale for Selection of Performance Indicator

Temperature is measured on the RTO stack because a potential deviation of the 50 degrees F below the minimum average compliance stack tested temperature can indicate problems with destruction efficiency of VOC in the combustion chamber. Too low of an exhaust gas temperature reduces the destruction efficiency of the VOCs. Continuous electronic monitoring of the temperature will help assure proper operation of the RTO's destruction efficiency and emission control.

#### c. Rationale for Selection of Indicator Level

A 3-hour average for a low temperature deviation was determined by the Iowa Department of Natural Resources (IDNR) in the initial construction permit for EP-S10 at Absolute Energy, LLC. The rationale behind the 3-hour average allows for minor process/upset conditions or glitches that will work themselves out, without causing an excess emission event. Any time the low temperature is below 50 degrees for a 3-hour average constitutes an excursion which could potentially trigger an excess event during that time period. Excursions from the average 3-hour operating temperature for the system will be responded too immediately. Maintenance and/or adjustments/repairs will be performed as necessary.

Performance testing on the RTO will be required and has in the past demonstrated their ability to stay below the compliance limit for emission rates and the minimum temperature limits in the construction permit.

### **Emission Point ID Number: EP-S20**

**Associated Equipment** 

Associated Emission Unit ID Numbers: EU-P20 Emissions Control Equipment ID Number: CE-C20 Emissions Control Equipment Description: Baghouse

EU ID	Description
P20A	Corn Unloading
P20B	Elevator Leg #1 from Unloading
P20C	Storage Bin Fill Conveyor
P20D	Grain Storage Bin #1
P20E	Grain Storage Bin #2
P20F	Storage Bin Emptying Conveyor
P20G	Elevator Leg #2 from Storage to Day Bin

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-595-S5

567 IAC 23.3(2) "d"

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

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.06 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-595-S5

Pollutant: Particulate Matter

Emission Limit(s): 2.06 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-595-S5

567 IAC 23.4(7)

### **Operating Limits with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator is limited to receiving no more than 53,571,429 bushels (1,500,000 tons) of grain facility wide via truck and rail combined on a 12-month rolling period. The following is required each month:
  - 1. Calculate and record the combined amount of grain received via truck and rail.
  - 2. Calculate and record the 12-month rolling total of combined amount of grain received via truck and rail.
- B. The facility is limited to the loadout of 20 million bushels of grain on a 12-month rolling period. The following is required each month:
  - 1. Calculate and record the combined amount of grain loaded out via truck and rail.
  - 2. Calculate and record the 12-month rolling total of combined amount of grain loaded out via truck and rail.
- C. The owner or operator shall conduct daily visible emissions to ensure no visible emissions are emitted from Baghouse (CE-C20).
  - 1. The owner or operator shall maintain a record of the daily visible emission observations from Baghouse (CE-C20) and any actions resulting from visible emission observations.
- D. The owner or operator shall operate, inspect, and maintain all the equipment associated with the process and the Baghouse (CE-C20) in accordance with manufacturer's specifications and maintenance schedule.
  - 1. The owner or operator shall maintain a record of all inspections, maintenance activities, deviations and any actions resulting from the inspection or maintenance of the Baghouse (CE-C20).

Authority for Requirement: DNR Construction Permit 06-A-595-S5

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 48 Exhaust Flow Rate (scfm): 48,000 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-595-S5

equirements listed
Yes 🗌 No 🖂
Yes 🗌 No 🖂
Yes 🛛 No 🗌
•

Authority for Requirement: 567 IAC 22.108(3)

### COMPLIANCE ASSURANCE MONITORING PLAN

S20 Baghouse for Control of PM AND PM<sub>10</sub>

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Grain receiving baghouse for grain receiving, storage, handling

and loadout. Permitted with a rated capacity of 2,100,000

bushels.

Identification: EP-S20

EU-S20

Emission Source: Permit Reference: 13-TV-007R1

06-A-595-S5

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. <u>Applicable Regulations, Emission Limits and Monitoring Requirements</u>

Regulation: DNR Construction Permit 06-A-595-S5

567 IAC 23.3(2)"d"; 567 IAC 23.4 (7)

CAM Emission Limits: 2.06 lb/hr; 0.1 gr/dscf total particulate matter (PM)

2.06 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-S20

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

### II. Monitoring Approach

	Indicator #1
I. Indicator	Differential pressure across baghouse.
Monitoring Approach	Differential pressure measured across the baghouse pressure will be recorded at least dailyonce weekly.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is -0.5-8 inches water column. 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).
III. Performance Criteria	
A. Data Representativeness	The differential pressure is measured across the baghouse.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.
D. Monitoring Frequency	The differential pressure will be recorded once per week when the baghouse is operating.
E. Data Collection Procedures	Pressure drop will be recorded electronically or manually.
F. Averaging Period	None.

#### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). Grain receiving, and handling operations result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions.

### b. Rationale for Selection of Performance Indicator

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5-8 inches of water column is recommended to achieve the required control efficiency.

### **Emission Point ID Number: EP-S30**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P30C, EU-P30D, EU-P30E, EU-P30F

Emissions Control Equipment ID Number: CE-C30 Emissions Control Equipment Description: Baghouse

Emission Unit (EU ID)	Maximum Rated Capacity
Hammermill #1 (P30C)	1,500 bushels/hr
Hammermill #2 (P30D)	1,500 bushels/hr
Hammermill #3 (P30E)	1,500 bushels/hr
Hammermill #4 (P30F)	1,500 bushels/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-596-S6

567 IAC 23.3(2) "d"

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

Pollutant: Particulate Matter

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

Authority for Requirement: DNR Construction Permit 06-A-596-S6

567 IAC 23.4(7)

Pollutant: PM2.5

Emission Limit(s): 0.90 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-596-S6

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.90 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-596-S6

### Operating Requirements with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall operate, inspect, and maintain the equipment described in this permit according to the manufacturer's specifications, instructions, and maintenance schedule.
  - (1) The owner or operator shall keep a copy of the manufacturer's specifications and instructions and a log of all maintenance and inspection activities performed on the equipment described in this permit. At a minimum, this log shall include:
    - (a) The date that any inspection and/or maintenance was performed on the equipment;
    - (b) Any issues identified during the inspection;
    - (c) Any issues addressed during the maintenance activities and the date each issue was resolved; and
    - (d) Identification of the staff member performing the maintenance or inspection.
- B. The owner or operator shall conduct daily visible emissions observations to ensure no visible emissions are emitted from emission point EP-S30.
  - (1) The owner or operator shall record the date and time of the observation and the presence or absence of visible emissions. If the owner or operator observes visible emissions from the EP-S30, the owner or operator shall investigate the emission unit, control equipment, or operations associated with the emission unit and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken.

Authority for Requirement: DNR Construction Permit 06-A-596-S6

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40 Stack Opening, (inches, dia.): 40

Exhaust Flow Rate (scfm): 21,000 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-596-S6

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

### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🛛 No 🗌

Authority for Requirement: 567 IAC 22.108(3)

# COMPLIANCE ASSURANCE MONITORING PLAN S30 Baghouse for Control of PM AND PM<sub>10</sub>

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Hammermilling baghouse for hammermilling equipment and

associated operations. Permitted with a rated capacity of

1,500,000 tons of grain per year.

Identification: EP-S30

EU-S30

Emission Source: Permit Reference: 13-TV-007R1

06-A-596-S6

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. <u>Applicable Regulations, Emission Limits and Monitoring Requirements</u>

Regulation: DNR Construction Permit 06-A-596-S6

567 IAC 23.3(2)d; 567 IAC 23.4 (7)

CAM Emission Limits: 0.90 lb/hr; 0.1 gr/dscf total particulate matter (PM)

0.90 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-S30

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

ZLP 27 ZLP 13-TV-007R2, 01/16/2024

### II. Monitoring Approach

	Indicator #1
I. Indicator	Differential pressure across baghouse
Monitoring Approach	Differential pressure measured across the baghouse by a magnehelic pressure gauge will be recorded at least once per dayweekly.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is -0.5 – 8 inches water column or a range established by the IDNR. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
III. Performance Criteria	
A. Data Representativeness	The differential pressure is measured across the baghouse.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per week when the baghouse is operating.
E. Data Collection Procedures	Pressure drop is manually or electronically recoded.  The observation includes the observation date, time, and pressure drop reading.
F. Averaging Period	None.

#### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). Hammermilling operations result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions. As such baghouses to control these emissions are employed to minimize release.

### b. Rationale for Selection of Performance Indicator

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5 to 8.0 inches of water column is recommended to achieve the required control efficiency.

### **Emission Point ID Number: EP-S30d**

**Associated Equipment** 

sociated Equipment	
Emission Unit (EU ID)	Maximum Rated Capacity
Elevator Leg from Scalper 1 to Holding Bin 1 (P30A)	5,000 bushels/hr
Dirty Day Bin (P30B)	15,000 bushels/hr
Elevator Leg from Scalper 2 to Holding Bin 2 (P30G)	5,000 bushels/hr
Elevator Leg from Conveyors P30N/P30O to Conveyor P30R (P30H)	5,500 bushels/hr
Elevator Leg to Day Bin (P30I)	20,000 bushels/hr
Scalper #1 (P30J)	5,000 bushels/hr
Scalper #2 (P30K)	5,000 bushels/hr
Holding Bin 1 (P30L)	1,000 bushels/hr
Holding Bin 2 (P30M)	1,000 bushels/hr
Conveyor from Hammermills 1-4 to Elevator Leg P30H (P30N)	5,000 bushels/hr
Conveyor from Hammermills 1-4 to Elevator Leg P30H (P30O)	5,000 bushels/hr
Conveyor from Scalpers 1 to Leg P30A (P30P)	5,000 bushels/hr
Conveyor from Scalpers 2 to Leg P30G (P30Q)	5,000 bushels/hr
Scalper #3 (S30d-1)	5,000 bushels/hr
Conveyor from Scalper #3 to Elevator Leg S30d-3 (S30d-2)	5,000 bushels/hr
Elevator Leg from Conveyor S30d-2 to Conveyor S30d-4 (S30d-3)	5,000 bushels/hr
Conveyor from Elevator Leg S30d-3 to Surge Bins 1 & 2 (S30d-4)	5,000 bushels/hr
Surge Bin 1 (S30d-5)	1,000 bushels/hr
Surge Bin 2 (S30d-6)	1,000 bushels/hr
Screw Conveyor from Hammermill 5 to Conveyor S30d-9 (S30d-7)	2,500 bushels/hr
Screw Conveyor from Hammermill 6 to Conveyor S30d-9 (S30d-8)	2,500 bushels/hr
Conveyor from Screw Conveyors S30d-7 & S30d-8 to Elevator Leg S30d-10 (S30d-9)	5,000 bushels/hr
Elevator Leg after Conveyor S30d-9 to Conveyor P30R (S30d-10)	5,000 bushels/hr
Conveyor after Elevator Legs S30d-10 & P30H (P30R)	10,000 bushels/hr

Emissions Control Equipment ID Number: CE-C30d Emissions Control Equipment Description: Baghouse

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 22-A-272

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: PM<sub>2.5</sub>

Emission Limit(s): 0.65 lb/hr

Authority for Requirement: DNR Construction Permit 22-A-272

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.65 lb/hr

Authority for Requirement: DNR Construction Permit 22-A-272

Pollutant: Particulate Matter

Emission Limit(s): 0.65 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 22-A-272

567 IAC 23.4(7)

### Operating Requirements with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall operate, inspect, and maintain the equipment described in this permit according to the manufacturer's specifications, instructions, and maintenance schedule.
  - (2) The owner or operator shall keep a copy of the manufacturer's specifications and instructions and a log of all maintenance and inspection activities performed on the equipment described in this permit. At a minimum, this log shall include:
    - (e) The date that any inspection and/or maintenance was performed on the equipment;
    - (f) Any issues identified during the inspection;
    - (g) Any issues addressed during the maintenance activities and the date each issue was resolved; and
    - (h) Identification of the staff member performing the maintenance or inspection.

- B. The owner or operator shall conduct daily visible emissions to ensure no visible emissions are emitted from emission point EP-S30d.
  - (1) The owner or operator shall record the date and time of the observation and the presence or absence of visible emissions. If the owner or operator observes visible emissions from the EP-S30d, the owner or operator shall investigate the emission unit, control equipment, or operations associated with the emission unit and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken.

Authority for Requirement: DNR Construction Permit 22-A-272

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37 Stack Opening, (inches, dia.): 10 Exhaust Flow Rate (scfm): 15,250 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 22-A-272

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

### **Monitoring Requirements**

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

Pollutant – Particulate Matter (PM) Initial Stack Test to be Completed by (date) – <sup>(1)</sup> Test Method - 40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202

Authority for Requirement: DNR Construction Permit 22-A-272

Pollutant – Particulate Matter (PM<sub>10</sub>) Initial Stack Test to be Completed by (date) - <sup>(1)</sup> Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement: DNR Construction Permit 22-A-272

Pollutant – Particulate Matter ( $PM_{2.5}$ ) Initial Stack Test to be Completed by (date) -  $^{(1)}$ Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement: DNR Construction Permit 22-A-272

(1) Initial testing will be completed within sixty (60) days after achieving the maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.

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 S30d Baghouse for Control of PM AND PM<sub>10</sub>

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Grain Handling baghouse for grain handling equipment and

associated operations. Permitted with a rated capacity of

1,500,000 tons of grain per year.

Identification: EP-S30d

EU-S30d

Emission Source: Permit Reference: 22-A-272

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. Applicable Regulations, Emission Limits and Monitoring Requirements

Regulation: DNR Construction Permit 22-A-272

567 IAC 23.3(2)d; 567 IAC 23.4 (7)

CAM Emission Limits: 0.65 lb/hr; 0.1 gr/dscf total particulate matter (PM)

0.65 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-C30d

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

### II. Monitoring Approach

	Indicator #1
I. Indicator	Differential pressure across baghouse
Monitoring Approach	Differential pressure measured across the baghouse by a magnehelic pressure gauge will be recorded at least once per dayweekly.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is -0.5 – 8 inches water column or a range established by the IDNR. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
III. Performance Criteria	
A. Data Representativeness	The differential pressure is measured across the baghouse.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per week when the baghouse is operating.
E. Data Collection Procedures	Pressure drop is manually or electronically recoded. The observation includes the observation date, time, and pressure drop reading.
F. Averaging Period	None.

#### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). Grain handling and hammermilling operations result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions. As such baghouses to control these emissions are employed to minimize release.

### b. Rationale for Selection of Performance Indicator

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5-8inches of water column is recommended to achieve the required control efficiency.

### **Emission Point ID Number: S30e**

### Associated Equipment

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): S30e-1

Emissions Control Equipment ID Number: CE-C30e Emissions Control Equipment Description: Baghouse Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: S30e-1

Emission Unit Description: Hammermill

Raw Material/Fuel: Corn

Rated Capacity: 1,677 bushels/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 22-A-273

567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.43 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 22-A-273

567 IAC 23.4(7)

Pollutant: Particulate Matter (PM<sub>2.5</sub>)

Emission Limit(s): 0.43 lb/hr

Authority for Requirement: DNR Construction Permit 22-A-273

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

Emission Limit(s): 0.43 lb/hr

Authority for Requirement: DNR Construction Permit 22-A-273

### Operating Requirements with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall operate, inspect, and maintain the equipment described in this permit according to the manufacturer's specifications, instructions, and maintenance schedule.
  - (1) The owner or operator shall keep a copy of the manufacturer's specifications and instructions and a log of all maintenance and inspection activities performed on the equipment described in this permit. At a minimum, this log shall include:
    - (a) The date that any inspection and/or maintenance was performed on the equipment;
    - (b) Any issues identified during the inspection;
    - (c) Any issues addressed during the maintenance activities and the date each issue was resolved; and
    - (d) Identification of the staff member performing the maintenance or inspection.
- B. The owner or operator shall conduct daily visible emissions to ensure no visible emissions are emitted from emission point EP-S30e.
  - (1) The owner or operator shall record the date and time of the observation and the presence or absence of visible emissions. If the owner or operator observes visible emissions from the EP-S30e, the owner or operator shall investigate the emission unit, control equipment, or operations associated with the emission unit and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken.

Authority for Requirement: DNR Construction Permit 22-A-273

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 24 Exhaust Flow Rate (scfm): 10,140 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 22-A-273

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

### **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – Particulate Matter (PM) Initial Stack Test to be Completed by (date) – <sup>(1) (2)</sup> Test Method - 40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202

Authority for Requirement: DNR Construction Permit 22-A-273

Pollutant – Particulate Matter (PM<sub>10</sub>) Initial Stack Test to be Completed by (date) - <sup>(1) (2)</sup> Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement: DNR Construction Permit 22-A-273

Pollutant – Particulate Matter (PM<sub>2.5</sub>) Initial Stack Test to be Completed by (date) - <sup>(1) (2)</sup> Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement: DNR Construction Permit 22-A-273

If the owner or operator decides to conduct representative initial compliance testing, testing shall be conducted on one (1) of the following emission points: EP S30e-1 or EP S30f-1. The initial compliance test results from that test shall be considered representative for the other listed emission points. If the tested emission point indicates non-compliance, the facility will be considered in violation of the emission limits set for the other emission points, or they may be tested independently to verify compliance.

(2) Initial testing will be completed within sixty (60) days after achieving the maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.

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)	

<sup>(1)</sup> The owner or operator shall either conduct representative initial compliance testing for EP S30e and EP S30f or conduct initial compliance testing on both emission points.

## COMPLIANCE ASSURANCE MONITORING PLAN

S30e Baghouse for Control of PM AND  $PM_{10}$ 

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Hammermilling baghouse for hammermilling equipment and

associated operations. Permitted with a rated capacity of

1,500,000 tons of grain per year.

Identification: EP-S30e

EU-S30e

Emission Source: Permit Reference: 22-A-273

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. <u>Applicable Regulations, Emission Limits and Monitoring Requirements</u>

Regulation: DNR Construction Permit 22-A-273

567 IAC 23.3(2)d; 567 IAC 23.4 (7)

CAM Emission Limits: 0.43 lb/hr; 0.1 gr/dscf particulate matter (PM)

0.43 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-C30e

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

### II. Monitoring Approach

	Indicator #1
I. Indicator	Differential pressure across baghouse
Monitoring Approach	Differential pressure measured across the baghouse by a magnehelic pressure gauge will be recorded at least once per dayweekly.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is -0.5 – 8 inches water column or a range established by the IDNR. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
III. Performance Criteria	
A. Data Representativeness	The differential pressure is measured across the baghouse.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per week when the baghouse is operating.
E. Data Collection Procedures	Pressure drop is manually or electronically recoded. The observation includes the observation date, time, and pressure drop reading.
F. Averaging Period	None.

#### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). Grain handling and hammermilling operations result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions. As such baghouses to control these emissions are employed to minimize release.

### b. Rationale for Selection of Performance Indicator

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5-8 inches of water column is recommended to achieve the required control efficiency.

### **Emission Point ID Number: S30f**

### **Associated Equipment**

Associated Emission Unit ID Numbers (if multiple units vent thru this EP): S30f-1

Emissions Control Equipment ID Number: CE-C30f Emissions Control Equipment Description: Baghouse Continuous Emissions Monitors ID Numbers: N/A

Emission Unit vented through this Emission Point: S30f-1

Emission Unit Description: Hammermill

Raw Material/Fuel: Corn

Rated Capacity: 1,677 bushels/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 22-A-274

567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.43 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 22-A-274

567 IAC 23.4(7)

Pollutant: Particulate Matter (PM<sub>2.5</sub>)

Emission Limit(s): 0.43 lb/hr

Authority for Requirement: DNR Construction Permit 22-A-274

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

Emission Limit(s): 0.43 lb/hr

Authority for Requirement: DNR Construction Permit 22-A-274

### Operating Requirements with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall operate, inspect, and maintain the equipment described in this permit according to the manufacturer's specifications, instructions, and maintenance schedule.
  - (1) The owner or operator shall keep a copy of the manufacturer's specifications and instructions and a log of all maintenance and inspection activities performed on the equipment described in this permit. At a minimum, this log shall include:
    - (a) The date that any inspection and/or maintenance was performed on the equipment;
    - (b) Any issues identified during the inspection;
    - (c) Any issues addressed during the maintenance activities and the date each issue was resolved; and
    - (d) Identification of the staff member performing the maintenance or inspection.
- B. The owner or operator shall conduct daily visible emissions to ensure no visible emissions are emitted from emission point EP-S30f.
  - (1) The owner or operator shall record the date and time of the observation and the presence or absence of visible emissions. If the owner or operator observes visible emissions from the EP-S30f, the owner or operator shall investigate the emission unit, control equipment, or operations associated with the emission unit and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken.

Authority for Requirement: DNR Construction Permit 22-A-274

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 24 Exhaust Flow Rate (scfm): 10,140 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 22-A-274

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

### **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – Particulate Matter (PM)
Initial Stack Test to be Completed by (date) – (1) (2)
Test Method - 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202

Authority for Requirement: DNR Construction Permit 22-A-274

Pollutant – Particulate Matter (PM<sub>10</sub>) Initial Stack Test to be Completed by (date) - <sup>(1) (2)</sup> Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement: DNR Construction Permit 22-A-274

Pollutant – Particulate Matter (PM<sub>2.5</sub>) Initial Stack Test to be Completed by (date) - <sup>(1) (2)</sup> Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement: DNR Construction Permit 22-A-274

If the owner or operator decides to conduct representative initial compliance testing, testing shall be conducted on one (1) of the following emission points: EP S30e-1 or EP S30f-1. The initial compliance test results from that test shall be considered representative for the other listed emission points. If the tested emission point indicates non-compliance, the facility will be considered in violation of the emission limits set for the other emission points, or they may be tested independently to verify compliance.

(2) Initial testing will be completed within sixty (60) days after achieving the maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.

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 □
A 1 1 ( C P 1 1 7 7 7 7 1 1 0 0 1 0 0 (0)	

Authority for Requirement: 567 IAC 22.108(3)

<sup>(1)</sup> The owner or operator shall either conduct representative initial compliance testing for EP S30e and EP S30f or conduct initial compliance testing on both emission points.

## COMPLIANCE ASSURANCE MONITORING PLAN S30f Baghouse for Control of PM AND PM<sub>10</sub>

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Hammermilling baghouse for hammermilling equipment and

associated operations. Permitted with a rated capacity of

1,500,000 tons of grain per year.

Identification: EP-S30f

EU-S30f

Emission Source: Permit Reference: 22-A-274

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. Applicable Regulations, Emission Limits and Monitoring Requirements

Regulation: DNR Construction Permit 22-A-274

567 IAC 23.3(2)"d"; 567 IAC 23.4 (7)

CAM Emission Limits: 0.43 lb/hr; 0.1 gr/dscf total particulate matter (PM)

0.43 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-S30f

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

### II. Monitoring Approach

- <b>-</b>	Indicator #1
I. Indicator	Differential pressure across baghouse
1. Indicator	Birefeliai pressure across oughouse
Monitoring Approach	Differential pressure measured across the baghouse by
	a magnehelic pressure gauge will be recorded at least
	once <del>per day</del> weekly.
II. Indicator Range	An excursion is defined as a differential pressure
	reading across the baghouse module outside the
	acceptable range. The acceptable range is -0.5 – 8
	inches water column or a range established by the IDNR. Excursions trigger an inspection, corrective
	action, and a recordkeeping requirement.
	action, and a recordice ping requirement.
III. Performance Criteria	
A. Data Representativeness	The differential pressure is measured across the
	baghouse.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and
B. Verification of Operational Status	maintained according to the manufacturer's
	specifications.
G OLIOGR II IGI	*
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and
	maintained according to the manufacturer's
	specifications.
D. Monitoring Frequency	The differential pressure will be inspected a minimum
	of once per week when the baghouse is operating.
E. Data Collection Procedures	Pressure drop is manually or electronically recoded.
	The observation includes the observation date, time,
E A ' D ' 1	and pressure drop reading.
F. Averaging Period	None.

### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). Hammermilling operations result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions. As such baghouses to control these emissions are employed to minimize release.

### b. Rationale for Selection of Performance Indicator

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5-8 inches of water column is recommended to achieve the required control efficiency.

### **Emission Point ID Number: EP-S40**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P40 Emissions Control Equipment ID Number: CE-C40 Emissions Control Equipment Description: CO<sub>2</sub> Scrubber

Emission Unit vented through this Emission Point: EU-P40 Emission Unit Description: Ethanol Production/Fermentation

Raw Material/Fuel: Grain Slurry Rated Capacity: 1,640 gal/min

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-597-S8

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: PM<sub>10</sub>

Emission Limit(s): 0.45 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-597-S8

Pollutant: Particulate Matter

Emission Limit(s): 0.45 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-597-S8

567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 12.84 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-597-S8

Pollutant: Acetaldehyde Emission Limit(s): 1.64 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-597-S8

Pollutant: Single HAP

Emission Limit(s): 0.38 lb/hr<sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 06-A-597-S8

<sup>(2)</sup> Emission limit applies to all single HAP except Acetaldehyde. The specific Individual HAP are primarily acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of these three HAPs.

Pollutant: Total HAPs

Emission Limit(s): 2.32 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-597-S8

### Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be available on-site for a minimum of five years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

A. For each month of operation, the facility shall operate the scrubber according to the parameters (scrubber liquid flow rate, additive feed rate, and pressure relief value pressure set point) that it used to demonstrate compliance with the permitted emission limits specified in Construction Permit Condition 1 during a monthly performance test.

Permitted Monthly Scrubber Operating Parameters as Allowed by Month Tested

	Termitted Worlding Serubber Operating Larameters as Anowed by World Tested												
			Monthly Scrubber Operating Parameters Allowed										
		January	February	March	April	May	June	July	August	September	October	November	December
	January	X	X										X
	February	X	X										X
	March	X	X	X								X	X
	April	X	X	X	X						X	X	X
<b>T</b>	May	X	X	X	X	X				X	X	X	X
Test Month	June	X	X	X	X	X	X	X	X	X	X	X	X
Wionth	July	X	X	X	X	X	X	X	X	X	X	X	X
	August	X	X	X	X	X	X	X	X	X	X	X	X
	September	X	X	X	X	X				X	X	X	X
	October	X	X	X	X						X	X	X
	November	X	X	X								X	X
	December	X	X										X

B. The owner or operator shall maintain an average pressure drop across the CO<sub>2</sub> Scrubber (C40) that is between 1 and 5 inches water column based on a 24-hour averaging period. The owner or operator shall establish an alarm setting for the purpose of initiating corrective action based on a pressure drop across the CO<sub>2</sub> Scrubber (C40) of less than 1 inch water column or a pressure drop across the CO<sub>2</sub> Scrubber (C40) of greater than 5 inches water column. The owner or operator shall record the CO<sub>2</sub> Scrubber (C40) pressure drop on a continuous basis. On those days when there is an alarm for the pressure drop reaching less than 1 inch water column or greater than 5 inches water column, calculate and record the average pressure drop across the CO<sub>2</sub> Scrubber (C40) based on a 24-hour average. This requirement shall not apply on the days that the CO<sub>2</sub> Scrubber (C40) is not in operation. If the pressure drop deviates outside the range required, then record the time, date and actions taken to correct the situation and when

- the pressure drop is back in the average pressure drop range required.
- C. The owner or operator shall maintain a minimum CO<sub>2</sub> Scrubber (C40) liquid (water) flow rate that is the total liquid flow rate at the inlet to the CO<sub>2</sub> Scrubber (C40) measured during the most recent performance test demonstrating compliance with all applicable emission limitations. The owner or operator shall record the CO<sub>2</sub> Scrubber (C40) liquid (water) flow rate on a continuous basis. If the flow rate deviates below the minimum flow rate required (i.e., the flow rate during the most recent performance test that demonstrated compliance), then the owner or operator shall record the time, date, actions taken to correct the situation, and the time when the flow rate is back above the minimum flow rate required.
- D. Any additive added to the CO<sub>2</sub> Scrubber (C40) liquid during a compliance test to enhance the efficiency of the scrubber shall be added at a rate greater than or equal to the rate recorded during the most recent performance test that demonstrated compliance with all applicable emission limitations. The owner or operator shall record the rate of additive added (additive feed rate) to the CO<sub>2</sub> Scrubber (C40) liquid on a continuous basis. If the additive feed rate deviates below the rate required (i.e., additive feed rate during the most recent performance test that demonstrated compliance), then the owner or operator shall record the time, date, actions taken to correct the situation, and the time when the additive feed rate is greater than or equal to the required additive feed rate.
- E. The owner or operator shall maintain an average pH of the scrubber water at the inlet of the CO<sub>2</sub> Scrubber (C40) at or above 5.5 based on a 3-hour block averaging period. The owner or operator shall establish an alarm setting for the purpose of initiating corrective action based on an average pH of the scrubber water at the inlet of the CO<sub>2</sub> Scrubber (C40) of less than 5.5. The owner or operator shall record the pH of the inlet scrubber water on a continuous basis and calculate and record the average pH of the inlet scrubber water on a 3-hour block basis. The pH levels of the inlet scrubber water, which includes condensate from the MER System, may be increased with the addition of caustic additives (e.g. sodium hydroxide). If the 3-hour block average pH of the scrubber water deviates below 5.5, then then the owner or operator shall record the time, date, actions taken to correct the situation (i.e. increased caustic additive feed rate), and the time when the 3-hour block average pH is back at or above 5.5.
- F. The owner or operator shall maintain onsite a copy of the previous performance tests for each CO<sub>2</sub> Scrubber (C40) operating scenario detailing the scrubber pressure drop, scrubber liquid flow rate, additive feed rate, and pH measured during each performance test, which demonstrated compliance with the emission limits in Condition 1.
- G. The owner or operator shall maintain the CO<sub>2</sub> Scrubber (CE C40) according to the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the CO<sub>2</sub> Scrubber (CE C40). This log shall include, but is not necessarily limited to:
  - a. The date and time any inspection and/or maintenance was performed on the CO<sub>2</sub> Scrubber (CE C40);
  - b. Any issues identified during the inspection and the date each issue was resolved;
  - c. Any issues addressed during the maintenance activities and the date each issue was resolved; and
  - d. Identification of the staff member performing the maintenance or inspection.
- H. Total ethanol production shall not exceed 150 million gallons per rolling twelve (12)

- month period. The owner or operator shall determine the cumulative amount of anhydrous ethanol produced on a rolling 12-month basis for each month of operation.
- I. The Pre-Condenser shall be operated during normal operation. The owner or operator shall note any time that the Pre-Condenser is not in operation. If the Pre-Condenser is not in operation, the owner or operator shall maintain the CO<sub>2</sub> Scrubber liquid flow rate and additive feed rate at rates equal to or greater than the rates during the most recent performance test that demonstrated compliance with the emission limits in Condition 1 and did not utilize the Pre-Condenser.
- J. The owner or operator shall use a pressure relief valve to bypass the Pre-Condenser during normal operation. The owner or operator shall operate the pressure relief valve with a pressure set point greater than or equal to the pressure set point recorded during the most recent performance test that demonstrated compliance with all applicable emission limitations. If the pressure set point deviates below the set point required, then the owner or operator shall record the time, date, actions taken to correct the situation, and the time when the pressure set point is greater than or equal to the required set point.

Authority for Requirement: DNR Construction Permit 06-A-597-S8

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 27 Exhaust Flow Rate (scfm): 11,000 Exhaust Temperature (°F): 75

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-597-S8

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

### **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – Single HAP and Total HAPs Test Method – see the table below

Pollutant	Frequency	Test Method
Single HAP <sup>(1),(2),(3)</sup>	2 110000	40 CFR 60, Appendix A, Method 18 or 40
	3 years	CFR 63, Appendix A, Method 320
Total HAP(1).(2)	3 years	40 CFR 60, Appendix A, Method 18 or 40
		CFR 63, Appendix A, Method 320

- (1) Tests shall be conducted once every three years during the months of June, July, or August and conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst case scenario (highest production rate, syrup rate, etc.). If any test is greater than 90% of the applicable emission limitation, the facility must conduct stack testing on an annual basis. If 4 consecutive annual tests are less than 90% of the applicable emission limitation, the facility may request to revert the stack testing frequency to once every three years. The next test must be completed by August 31, 2026.
- (2) Additional performance testing shall be conducted once every three years to establish Winter operating conditions. The facility shall use those tests that demonstrate compliance with the permitted emission limits in Condition 1 to establish the scrubber liquid flow rate, additive feed rate, and pressure relief value set point for each month of operation, as detailed in Construction Permit Condition 5.A. The applicable scrubber liquid flow rates, additive feed rates, and pressure relief valve set points from these stack tests shall be valid for a period of three years from the month in which the stack test is completed. If a stack test exceeds 90% of an applicable emission limitation, then the applicable scrubber liquid flow rate, additive feed rate, and pressure relief valve set point shall only be valid for a period of one year from the month in which the stack test is completed. All additional performance tests shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst case scenario (highest production rate, syrup rate, etc.). The next winter test must be completed by January 31, 2026.
- (3) Acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde and methanol, any HAP whose emissions are below the detection limit shall be assumed to be zero.

Authority for Requirement: DNR Construction Permit 06-A-597-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)

### **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)

ZLP 57

# COMPLIANCE ASSURANCE MONITORING PLAN S40 Scrubber for Control of VOC and HAP Emissions

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: Fermentation process emissions. Permitted with a rated capacity

of 1,640 gal/min .

Identification: EP-S40

EU-S40

Emission Source: Permit Reference: 13-TV-007R1

06-A-597-S8

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. Applicable Regulations, Emission Limits and Monitoring Requirements

Regulation: DNR Construction Permit 06-A-597-S7

567 IAC 23.3(2)"d"; 567 IAC 23.3(2)"a"

CAM Emission Limits: 12.84 lb/hr total volatile organic compounds (VOC)

2.32 lb/hr total hazardous air pollutants (HAP) 0.38 lb/hr single hazardous air pollutant (HAP)

c. Control Technology

Control Equipment ID: CE-S40

CE Description: CO2 scrubber for the control of VOC and HAP emissions.

### II. Monitoring Approach

	Indicator #1	Indicator #2
I. Indicator	Differential pressure across the scrubber.	Minimum Scrubber liquid (water) flow rate.
Monitoring Approach	Pressure drop is measured continuously and recorded. If pressure drop falls below 1 or above 5 instantaneously, the Distributed Control System (DCS) alarms and the operators make corrections to bring pressure drop back within range.	Flow rate is measured continuously and recorded within the DCS.
II. Indicator Range	Pressure drop shall be maintained between 1-5 inches water column based on a 24-hour averaging period.	The owner or operator shall maintain a minimum CO2 Scrubber (C40) liquid (water) flow rate that is the total liquid flow rate at the inlet to the CO2 Scrubber (C40) measured during the most recent performance test demonstrating compliance with all applicable emission limitations.
III. Performance Criteria		
A. Data Representativeness	Pressure drop is measured at the inlet and outlet of the scrubber.	Flow rate is measured at the inlet at the scrubber.
B. Verification of Operational Status	Not applicable.	Not applicable.
C. QA/QC Practice and Criteria	The DCS continuously tracks and records data on an electronic basis. The DCS is manned 24-hours per day.	The DCS continuously tracks and records data on an electronic basis. The DCS is manned 24-hour per day
D. Monitoring Frequency	Pressure drop is measured continuously and recorded. If pressure drop falls below 1 or above 5 instantaneously, the DCS alarms and the operators make corrections to bring pressure within range.	Flow rate is monitored continuously by the DCS and if the flow rate deviates below the minimum 90% required value, staffed DCS employees are notified.
E. Data Collection Procedures	The pressure drop will be electronically recorded and averaged for a 24-hour period. No data will be recorded when the fermentation scrubber is not in operation.	The flow rate will be electronically recorded and compared to the minimum rate. No data will be recorded when the fermentation scrubber is not in operation.

F. Averaging Period 24-hour average. None.

	Indicator #3
I. Indicator	Minimum additive feed rate.
Monitoring Approach	The additive feed rate is measured continuously and recorded within the DCS.
II. Indicator Range	The additive feed rate must be greater than or equal to the amount used during a previous compliance stack test event that demonstrated compliance.
III. Performance Criteria	
A. Data Representativeness	The additive feed rate is measured at the discharge of the pump.
B. Verification of Operational Status	Not applicable.
C. QA/QC Practice and Criteria	The DCS continuously tracks and records data on an electronic basis. The DCS is manned 24-hours per day.
D. Monitoring Frequency	The additive feed rate is monitored continuously by the DCS. If the feed rate deviates below the required minimum amount, staffed DCS employees are notified.
E. Data Collection Procedures	The additive feed rate will be electronically recorded and compared to the required minimum feed rate amount. No data will be recorded when the fermentation scrubber is not in operation.
F. Averaging Period	None.

#### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). The freshwater fermentation scrubber is used to control the pollutants that trigger the CAM requirements, or VOC and HAP emissions.

### b. Rationale for Selection of Performance Indicator

The rate at which VOCs/HAPS 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 the minimum flow rate demonstrated by the most recent compliant stack test. Also, the chemical injection rate is maintained at a minimum injection rate as demonstrated by the most recent compliant stack test. Should the water flow rate or chemical injection rate fall below the rates demonstrated at the most recent compliant stack testing, corrective

measures are taken, the incident is logged, and the incident is reported as required by the Title V Permit.

Both the water flow rate and chemical injection rate are 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.

### c. Rationale for Selection of Indicator Level

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.

### **Emission Point ID Number: EP-F60**

Associated Equipment

Associated Emission Unit ID Numbers: EU-F60

Emission Unit vented through this Emission Point: EU-F60

Emission Unit Description: VOC Equipment Leaks

Raw Material/Fuel: VOC Fugitive

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: Volatile Organic Compounds (VOC)

Emission Limit(s): 7.71 ton/yr

Authority for Requirement: DNR Construction Permit 06-A-602-S4

Pollutant: Single HAP

Emission Limit(s): 0.01 ton/yr

Authority for Requirement: DNR Construction Permit 06-A-602-S4

Pollutant: Total HAPs

Emission Limit(s): 0.05 ton/yr

Authority for Requirement: DNR Construction Permit 06-A-602-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 follow the applicable standards of NSPS Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.
- B. The owner or operator shall follow the applicable standards and requirements of Subpart BBBBB, 40 CFR 63.11080 through 40 CFR 63.11100 for equipment leaks.

### **Reporting and Recordkeeping**

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall count and document the number and types of components used at the plant. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The company shall modify the component count whenever the number of components change.
- B. The owner or operator shall determine and document the concentration of all Individual HAP and Total HAP for each component in weight percent. The company shall modify the concentration if and whenever it changes.
- C. The owner or operator shall calculate and record the annual VOC, Individual HAP, and Total HAP emissions based on the documented component count and Single HAP and Total HAP concentration in the equipment (components). The owner or operator shall update the annualized VOC, Individual HAP and Total HAP emission calculations as the component count or concentration varies. Emission factors and estimation methods shall be based on EPA document 453/R-95-017 entitled Protocol for Equipment Leak Emission Estimates.
- D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart VV- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, specifically §60.486 and §60.487.
- E. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-General Provisions §§60.1 through 60.19.
- F. The owner or operator shall comply with all applicable reporting, notification, and recordkeeping requirements as specified 40 CFR Part 63 Subpart BBBBBB- National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities, specifically \$63.11093, \$63.11094, and \$63.11095.
- G. The owner or operator shall comply with the requirements of 40 CFR Part 63 Subpart A-General Provisions, as specified 40 CFR Part 63 Subpart BBBBBB §63.11098.

Authority for Requirement: DNR Construction Permit 06-A-602-S4

567 IAC 23.1(2)"nn" 567 IAC 23.1(4)"eb"

### **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-C70 Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-P70

Emission Unit Description: DDGS Cooler

Raw Material/Fuel: DDGS Rated Capacity: 55.65 ton/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-598-S7

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: PM<sub>10</sub>

Emission Limit(s): 0.64 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-598-S7

Pollutant: Particulate Matter

Emission Limit(s): 0.64 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-598-S7

567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 8.35 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-598-S7

Pollutant: Acetaldehyde Emission Limit(s): 0.14 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-598-S7

Pollutant: Single HAP

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-598-S7

Pollutant: Total HAPs

Emission Limit(s): 0.55 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-598-S7

### Operational Limits & Reporting/Record keeping Requirements

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

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The facility-wide DDGS production shall not exceed 487,500 tons per rolling 12-month period. On a monthly basis, the owner or operator shall:
  - i. Record the amount of DDGS produced, in tons, at this facility in the past month; and
  - ii. Calculate and record the rolling 12-month total amount of DDGS produced, in tons, at this facility.
- B. The owner or operator shall operate and maintain the baghouse according to the facility's operation and maintenance plan. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the baghouse. This log shall include, but is not necessarily limited to:
  - i. The date any inspection and/or maintenance was performed on the baghouse;
  - ii. Any issues identified during the inspection;
  - iii. Any issues identified during the maintenance activities; and
  - iv. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 06-A-598-S7

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 48 Exhaust Flow Rate (scfm): 50,000 Exhaust Temperature (°F): 85

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-598-S7

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

### **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – HAP

Test Method – see the table below

Pollutant	Frequency	Test Method
HAP <sup>(1),(2),(3)</sup>	3 years	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320

- (1) Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde, and methanol, any HAP whose emissions are below the detection limit shall be assumed to be zero.
- (2) These tests shall be conducted once every three years during the months of June, July, or August and conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst case scenario (highest production rate, syrup rate, etc.).
- (3) Stack testing shall be conducted once every three years with a minimum of 6 months between testing. If a stack test exceeds 90% of appropriate emission limitation, then testing shall revert to annual until 3 consecutive tests are less than 90% of the appropriate emissions limitation. Testing of this stack shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst case scenario. The next test must be completed by 08/31/2025.

Authority for Requirement: DNR Construction Permit 06-A-598-S7

Authority for Requirement: 567 IAC 22.108(3)

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🛛 No 🗌

67 13-TV-007R2, 01/16/2024 **ZLP** 

### COMPLIANCE ASSURANCE MONITORING PLAN

S70 Baghouse for Control of PM AND PM<sub>10</sub>

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

### I. Background

a. <u>Emission Units</u>

Description: DDGS cooling baghouse particulate matter generated from the

DDGS Cooling process. Permitted with a rated capacity of 55.7

ton/hr of DDGS.

Identification: EP-S70

**EU-S70** 

Emission Source: Permit Reference: 13-TV-007R1

06-A-598-S7

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. <u>Applicable Regulations, Emission Limits and Monitoring Requirements</u>

Regulation: DNR Construction Permit 06-A-598-S7

567 IAC 23.3(2)d; 567 IAC 23.4 (7)

CAM Emission Limits: 0.64 lb/hr; 0.1 gr/dscf total particulate matter (PM)

0.64 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-S70

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

### II. Monitoring Approach

	Indicator #1
I. Indicator	Differential pressure across baghouse
Monitoring Approach	Differential pressure measured across the baghouse by a magnehelic pressure gauge will be recorded at least once per dayweekly.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is -0.5 – 8 inches water column or a range established by the IDNR. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
III. Performance Criteria	
A. Data Representativeness	The differential pressure is measured across the baghouse.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per week when the baghouse is operating.
E. Data Collection Procedures	Pressure drop is manually or electronically recoded. The observation includes the observation date, time, and pressure drop reading.
F. Averaging Period	None.

#### III. Justification

### a. Background

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). DDGS cooling operations result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions, which are controlled

### b. Rationale for Selection of Performance Indicator

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5 to 8.0 inches of water column is recommended to achieve the required control efficiency.

### **Emission Point ID Number: EP-F80**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P80

Emission Unit vented through this Emission Point: EU-F80

Emission Unit Description: Cooling Tower

Raw Material/Fuel: Cooling Water Rated Capacity: 50,000 gal/min

### **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: PM<sub>10</sub>

Emission Limit(s): 2.5 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-609-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 2.5 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-609-S1

### **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) level shall not exceed 2,000 mg/L for any single sampling/testing event.
- B. The owner or operator shall test TDS on a monthly basis.
- C. The biocide or any other chemical added to the cooling tower shall contain no VOC containing materials.
- D. The biocide or any other chemical added to the cooling tower shall contain no HAP containing materials.

### Reporting and Recordkeeping

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep records of the results of the monthly TDS sampling/testing available.
- B. The owner or operator shall keep readily available all SDS and any other type of documents verifying that the material added to the cooling towers does not contain any VOC or HAP containing material.

Authority for Requirement: DNR Construction Permit 06-A-609-S1

<u>Monitoring Requirements</u> 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-C90 Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-P90 Emission Unit Description: DDGS and Grain Loadout

Raw Material/Fuel: DDGS and Grain

Rated Capacity: 55.65 ton/hr for DDGS; 65 ton/hr for Grain Loadout

# **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-599-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: PM<sub>10</sub>

Emission Limit(s): 0.39 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-599-S5

Pollutant: Particulate Matter

Emission Limit(s): 0.39 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-599-S5

567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.83 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-599-S5

Pollutant: Acetaldehyde Emission Limit(s): 0.08 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-599-S5

Pollutant: Single HAP

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-599-S5

Pollutant: Total HAPs

Emission Limit(s): 0.41 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-599-S5

# **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 inspect and maintain the control equipment according to manufacturer's specifications.
- B. Plant-wide, DDGS production shall not exceed 487,500 tons per rolling twelve (12) month period.
- C. The facility is limited to the loadout/shipping of 20 million bushels of grain per rolling 12-month period.

# Reporting and Recordkeeping

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep records of control equipment inspection and maintenance.
- B. The owner or operator shall determine the cumulative amount of DDGS produced on a rolling 12-month basis for each month of operation.
- C. Calculate on a monthly basis the amount of grain loaded out via truck and rail. On a rolling 12-month basis, maintain the total amount of grain loaded out via truck and rail.

Authority for Requirement: DNR Construction Permit 06-A-599-S5

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 26 Exhaust Flow Rate (acfm): 9,100 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-599-S5

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

# **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🛛 No 🗌
Authority for Requirement: 567 IAC 22.108(3)	

# COMPLIANCE ASSURANCE MONITORING PLAN S90 Baghouse for Control of PM AND PM<sub>10</sub>

Absolute Energy, LLC 1372 State Line Road St. Ansgar, Iowa 50472

# I. Background

a. <u>Emission Units</u>

Description: DDGS loading baghouse for DDGS handling and loadout.

Permitted with a maximum throughput of 56 tons per hour for

DDGS.

Identification: EP-S90

**EU-S90** 

Emission Source: Permit Reference: 13-TV-007R1

06-A-599-S5

Facility: Absolute Energy, LLC

EIQ Number: 92-6948 Facility ID Number: 66-10-001

b. <u>Applicable Regulations, Emission Limits and Monitoring Requirements</u>

Regulation: DNR Construction Permit 06-A-599-S5

567 IAC 23.3(2)d; 567 IAC 23.4 (7)

CAM Emission Limits: 0.39 lb/hr; 0.1 gr/dscf total particulate matter (PM)

0.39 lb/hr particulate matter < 10 microns (PM<sub>10</sub>)

c. <u>Control Technology</u>

Control Equipment ID: CE-S30

CE Description: Fabric filter baghouse for the collection and control of PM,

PM10 and PM2.5.

# II. Monitoring Approach

	Indicator #1	
I. Indicator	Differential pressure across baghouse	
Monitoring Approach	Differential pressure measured across the baghouse by a magnehelic pressure gauge will be recorded at least once per dayweekly.	
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is -0.5 – 8 inches water column or a range established by the IDNR. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.	
III. Performance Criteria		
A. Data Representativeness	The differential pressure is measured across the baghouse.	
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	
C. QA/QC Practice and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per week when the baghouse is operating.	
E. Data Collection Procedures	Pressure drop is manually or electronically recoded. The observation includes the observation date, time, and pressure drop reading.	
F. Averaging Period	None.	

#### III. Justification

# a. <u>Background</u>

The facility purchases grain (primarily corn) which is converted to ethanol via natural fermentation. The final products are sold and include fuel ethanol, and animal feed, such as Dried Distillers Grains and Solubles (DDGS). DDGS handling and loadout result in the generation of PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions. As such baghouses to control these emissions are employed to minimize release.

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

Baghouses (or fabric filters) are standard PM,  $PM_{10}$  and  $PM_{2.5}$  emission controls from grain processing operations creating particulate emissions and are typically cited as best available control technology (BACT) for such applications. Baghouses operate by collecting particulate on porous fabric bags, thus resulting in a pressure differential across the system. The pressure is required as the gas stream is passed through the fabric which results in pressure; too much pressure indicates a possible plugging of the system and too little indicates possible bag breakage. Therefore, pressure drop of the system is the best indicator of baghouse performance.

#### c. Rationale for Selection of Indicator Level

Baghouses remove dust from a gas stream by passing the stream through a porous fabric. Particles form a porous cake on the fabric that acts as the filtration device. This porous cake is routinely removed and collected then returned to the manufacturing process. Baghouses are highly efficient for controlling filterable PM, PM<sub>10</sub> and PM<sub>2.5</sub> and are typically considered BACT for such applications with control efficiencies from 97 to 99 percent or more in most applications. The baghouse manufacturer typically guarantees a control efficiency of 99% for this source. Baghouses are subject to failure if they are not properly operated and maintained. All excursions will be documented. An indicator pressure drop range of -0.5 to 8.0 inches of water column is recommended to achieve the required control efficiency.

# **Emission Point ID Number: EP-F100**

Associated Equipment

Associated Emission Unit ID Numbers: EU-F100

Emission Unit vented through this Emission Point: EU-F100

Emission Unit Description: Fugitive Emissions from Internal Plant Roads

Raw Material/Fuel: Fugitive Dust

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): No Visible Emissions at Property Line

Authority for Requirement: DNR Construction Permit 06-A-603-S6

567 IAC 23.3(2) "c"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 7.32 ton/yr

Authority for Requirement: DNR Construction Permit 06-A-603-S6

Pollutant: Particulate Matter (PM) Emission Limit(s): 36.60 ton/yr

Authority for Requirement: DNR Construction Permit 06-A-603-S6

# **Operational Limits & Requirements**

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

# **Operating Limits**

- A. The haul roads shall be paved prior to receiving grain at the facility.
- B. Truck traffic on the haul road shall not exceed 10 mph. The speed limit shall be posted on the haul road.
- C. Any spills on the road shall be cleaned up immediately.
- D. Truck traffic emissions on the paved road shall be controlled by water flushing (except as noted in condition D4 as described below and sweeping as described in condition C in the section of Reporting and Recordkeeping) once per day. The water spray rate shall be a minimum of 0.23 gallons per square yard.
  - i. If water flushing followed by 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) only sweeping is required. Water flushing and/or sweeping is not required for days of inclement weather.
  - ii. Water flushing and sweeping need not occur when a rain gauge located at the site

- indicates that at least 0.2 inches of precipitation (water equivalent) has occurred within the preceding 24-hr time period.
- iii. Water flushing and sweeping need not occur if the plant does not receive any truck traffic that day (i.e. on a weekend).
- iv. Water flushing need not occur provided that the haul road emissions do not exceed 27.5 tons PM for the last twelve months. This shall be calculated using the formula in Item D in the section of Reporting and Recordkeeping below. In the event that emissions exceed 27.5 tons for the last twelve months the plant shall be required to commence daily water flushing with daily sweeping until PM emissions fall below 27.5 tons for the last twelve months.

# Reporting and Recordkeeping

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. Record the frequency of sweeping performed on the haul roads. If the roads are not swept due to weather, a written record must be kept on site outlining the conditions.
- B. Performance silt load testing on the haul road surface shall be completed on a quarterly basis. For each performance test, silt load sampling shall be done at a minimum of 3 different locations. Performance testing shall be completed prior to water flushing and/or sweeping.
- C. The plant shall maintain a log for the haul roads that show the following:
  - i. The silt content of the road for that month based on quarterly testing;
  - ii. The date of performance (silt load) testing;
  - iii. The vehicle miles traveled (VMT) for that month;
  - iv. Each day record whether or not water flushing and sweeping was accomplished. For days without water flushing and/or sweeping record the circumstances (i.e. weather condition, equipment malfunction);
  - v. The amount of water applied and the areas treated; and,
  - vi. The operator's initials.
- D. The owner or operator shall calculate and record the monthly haul road emissions according to the following formula, which uses the equation from AP-42 Section 13.2.1 Paved Roads (Revised January 2011), the empirical constants, and assumes a mean vehicle weight of 27.18 tons.

$$E = k \times (sL)^{0.91} \times W^{1.02}$$

Where:

E = particulate emission factor (having units matching the units of k),

k = particle size multiplier for particle size range and units of interest (see below),

 $sL = \text{road surface silt loading (grams per square meter) (g/m}^2)$ , and

W = average weight (tons) of the vehicles traveling the road.

Particle size multiplier: K<sub>PM</sub>=0.011 lb/VMT; K<sub>PM10</sub>=0.0022 lb/VMT

E. The owner or operator shall update monthly the twelve-month rolling total of PM and PM10 emissions by adding up the calculated monthly emissions for the previous twelve months. The plant shall notify DNR immediately if the twelve-month rolling total exceeds 36.60 tons PM or 7.32 tons of PM10.

F. The owner/operator shall record the number of trucks that load/unload material on a monthly basis. Based on the number of trucks the total Vehicle Miles Traveled (VMT) shall be calculated for that month.

Authority for Requirement: DNR Construction Permit 06-A-603-S6

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)

ZLP 81 13-TV-007R2,

# **Emission Point ID Number: EP-S110**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P110

Emission Unit vented through this Emission Point: EU-P110

Emission Unit Description: Diesel Emergency Engine

Raw Material/Fuel: Diesel

Rated Capacity: 360 bhp, 16.5 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: DNR Construction Permit 06-A-610-S5

567 IAC 23.3(2) "d"

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

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.16 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-610-S5

Pollutant: Particulate Matter

Emission Limit(s): 0.16 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-610-S5

567 IAC 23.3(2)"a"

Pollutant: Particulate Matter

Emission Limit(s): 0.54 g/kW-hr (0.40 g/hp-hr)

Authority for Requirement: DNR Construction Permit 06-A-610-S5

567 IAC 23.1(2)"yyy" 40 CFR 60 Subpart IIII

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

Emission Limit(s): 0.74 lb/hr; 2.5 lb/MMBtu

Authority for Requirement: DNR Construction Permit 06-A-610-S5

567 IAC 23.3(3)

ZLP 82 13-TV-007R2,

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 4.15 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-610-S5

Pollutant: Non-methane Hydrocarbons (NMHC) +  $NO_x$ 

Emission Limit(s): 10.5 g/kW-hr (7.8 g/hp-hr)

Authority for Requirement: DNR Construction Permit 06-A-610-S5

567 IAC 23.1(2)"yyy" 40 CFR 60 Subpart IIII

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.16 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-610-S5

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 0.64 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-610-S5

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 3.5 g/kW-hr (2.6 g/hp-hr)

Authority for Requirement: DNR Construction Permit 06-A-610-S5

567 IAC 23.1(2)"yyy" 40 CFR 60 Subpart IIII

#### Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be available on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The engine is limited to operating a maximum of 300 hours in any rolling 12-month period.
- B. The engine:
  - (1) Is limited to operate as an emergency stationary internal combustion engine as defined in 40 CFR §60.4219 and in accordance with 40 CFR §60.4211(f). There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition 5.A. is not exceeded. In accordance with 40 CFR §60.4211(f)(2), the engine is limited to operate a maximum of 100 hours per calendar year for maintenance checks and readiness testing.
- C. In accordance with 40 CFR §60.4209(a), the engine shall be equipped with a non-resettable hour meter.
- D. The owner or operator shall maintain the following monthly records:
  - (1) the number of hours that the engine operated for maintenance checks and readiness testing;
  - (2) the number of hours that the engine operated for emergency service and the reason for the emergency operation [See 40 CFR §60.4214(b)];

ZLP 83 13-TV-007R2.

- (3) the total number of hours that the engine operated; and
- (4) the rolling 12-month total amount of the number of hours that the engine operated.
- E. The owner or operator shall maintain the following annual records:
  - (1) the total number of hours that the engine operated for maintenance checks and readiness testing.
- F. In accordance with §60.4207(b), the diesel fuel burned in this engine shall meet the following specifications from 40 CFR 1090.305 for ultra-low sulfur diesel (ULSD):

# **Diesel Fuel Specifications**

Parameter	Limit
Sulfur (S) content	15 ppm (0.0015%) by weight
Minimum cetane index or	40
Maximum aromatic content	35% (by volume)

- (1) The owner or operator shall comply with the requirements listed above by one of the following methods:
  - a. have the fuel supplier certify that the fuel delivered meets the of non-road diesel fuel ULSD as defined in 40 CFR 1090.80; or
  - b. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
  - c. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.
- G. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).
- H. In accordance with 40 CFR §60.4211(a), the engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. Except as permitted in 40 CFR §60.4211(g), the owner or operator may only change emission-related engine settings that are permitted by the manufacturer.
- I. The owner or operator shall complete all applicable monitoring, compliance, notification, reporting, and recordkeeping requirements as required by NSPS Subpart IIII not specifically listed in this permit:
  - (1) The owner or operator of the engine shall follow the monitoring requirements of 40 CFR §60.4209.
  - (2) The owner or operator of the engine shall follow the compliance requirements of 40 CFR §60.4211.
  - (3) The owner or operator of the engine shall follow the notification, reporting, and recordkeeping requirements of 40 CFR §60.4214(b).

Authority for Requirement: DNR Construction Permit 06-A-610-S5

567 IAC 23.1(2)"yyy" 567 IAC 23.1(4)"cz"

ZLP 84 13-TV-007R2.

#### **NSPS/NESHAP Requirements**

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

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

# NSPS Subpart IIII Requirements

For 2007 and later model year emergency (Except FP) CI engines with Disp. < 30 l/cyl constructed after 7/11/2005 and manufactured after 4/1/2006:

#### Emission Standards (for engines with displacement (L/cyl) < 10):

According to 40 CFR 60.4205(b) and 4202, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Engine Displacement (l/cyl)	Maximum Engine Power	Model Year(s)	NMHC + NOx	СО	PM	Opacity	Rule Ref
Disp. < 10	$\begin{array}{c c} 225 \le kW < 450 \\ (302 \le HP < 604) \end{array}$	2007+	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)	(1)	(2)

<sup>(1)</sup> Exhaust opacity must not exceed: 20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.
(2) 40 CFR 89.112 and 40 CFR 89.113.

# Fuel Requirements (if using diesel):

You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

#### Compliance Requirements:

- 1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
  - a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
  - b) Changing only those emission-related settings that are permitted by the manufacturer; and
  - c) Meeting the requirements of 40 CFR 89, 94 and/or 1068, as they apply to you.
- 2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).

ZLP 85 13-TV-007R2,

3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
$100 \le HP \le 500$	Within 1 year of engine	Not required
	startup,	
	or non-permitted action (1)	

<sup>(1)</sup> Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

# Operating and Recordkeeping Requirements

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 60.4209(a)) and, starting with the model years in the following table, you must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. 40 CFR 60.4214(b).

Engine power	Starting model year
$19 \le KW < 56 \ (25 \le HP < 75)$	2013
$56 \le KW < 130 \ (75 \le HP < 175)$	2012
$130 \le KW (175 \le HP)$	2011

- 2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
- 3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
- 4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

Authority for Requirement: DNR Construction Permit 06-A-610-S5

40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 11

Stack Opening, (inches, dia.): 8 Exhaust Flow Rate (acfm): 800 Exhaust Temperature (°F): 660

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-610-S5

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

# **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required? Authority for Requirement: 567 IAC 22.108(3)	Yes 🗌 No 🖂

# **Emission Point ID Number: EP-F120A**

**Associated Equipment** 

Associated Emission Unit ID Numbers: EU-P120A Emissions Control Equipment ID Number: C120A

Emissions Control Equipment Description: Impervious Cover

Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: EU-P120A Emission Unit Description: 1.3 Million Bushel Grain Storage Pile

Raw Material/Fuel: Grain

Rated Capacity: 1,300,000 bushels

# **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 09-A-646-S2

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: PM<sub>10</sub>

Emission Limit(s): 3.48 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-646-S2

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-646-S2

567 IAC 23.4(7)

ZLP 88 13-TV-007R2,

# **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 minimize the amount of dust emissions generated from the unloading of trucks, conveying of grain, dropping grain onto the pile, and the pile.
- B. The owner or operator shall minimize the amount of dust emissions generated from the removal of grain from the pile, the depositing of the grain onto the auger system, and the dropping of the grain from the conveying system into the trucks.
- C. The owner or operator is limited to storing no more than 1,300,000 bushel per rolling 12-month period at the grain storage pile for EU-P120A.

#### Reporting and Recordkeeping

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall document and put in place measures to minimize dust emissions from unloading, conveying, dropping onto the pile, the pile, removing grain from the pile, conveying removed grain, and filling trucks with grain removed from the pile.
- B. The owner or operator shall calculate on a monthly basis the amount of grain received via truck that is stored at the 1,300,000 bushel grain storage pile. The owner or operator shall maintain the total amount of grain received on a rolling 12-month basis in bushels for the 1,300,000 bushel storage pile.

Authority for Requirement: DNR Construction Permit 09-A-646-S2

# **Monitoring Requirements**

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

# **Stack Testing:**

Pollutant – Opacity Testing Frequency

Pollutant	Frequency	<b>Test Run Time</b>	Test Method
Opacity (Filling) (1)	Once per calendar year <sup>(1)</sup>	1 hour	Observation Stack Test (1), Record
			Keeping
Opacity (Removing) (2)	Once per calendar year <sup>(1)</sup>	1 hour	Observation Stack Test (2), Record
			Keeping

(1) Testing shall be completed within 14 days of initial start of filling the grain to the temporary grain storage pile. Observation shall be completed at the unloading area for both hopper truck(s) and straight truck(s), the discharge point from the conveyor to the storage pile, and the emissions off the storage pile as the grain is dropped onto the storage pile. Testing shall be completed once per calendar year with a minimum of six (6) months between tests.

(2) Testing shall be completed within 14 days of initial start of removing the grain from the temporary grain storage pile. Observation shall be completed at the picking up of the grain, dumping grain on the auger, and the auger emptying into the truck. Testing shall be completed once per calendar year with a minimum of six (6) months between tests.

Test Method – 40 CFR 60, Appendix A, Method 9 Authority for Requirement: DNR Construction Permit 09-A-646-S2

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: EP22**

Associated Equipment

Associated Emission Unit ID Numbers: EP22 Emissions Control Equipment ID Number: EP22

Emissions Control Equipment Description: Enclosed Flare

EP	EU	Emission Unit Description	Raw Material	Rated Capacity			
EP22	EP22				Product Loadout to Truck	Denatured ethanol, undenatured ethanol, or flexible fuel	480 gal/min
		Product Loadout to Rail	Denatured ethanol, undenatured ethanol, or flexible fuel	2,000 gal/min			
		Vapor Recovery System	Natural Gas	42.48 MMBtu			

# **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permit 06-A-601-S8

567 IAC 23.3(2) "d"

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

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.40 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-601-S8

Pollutant: Particulate Matter

Emission Limit(s): 0.40 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-601-S8

567 IAC 23.3(2) "a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 500 ppmv

Authority for Requirement: DNR Construction Permit 06-A-601-S8

567 IAC 23.3(3)

ZLP 91 13-TV-007R2,

# **Operating Limits with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The owner or operator shall operate, inspect, and maintain the process equipment, VOC collection system, and Vapor Recovery System Flare (EP 22) according to manufacturer's specifications.
- B. The owner or operator shall maintain a record of all inspections / maintenance and any action resulting from the inspection / maintenance of the process equipment, VOC collection system, and Vapor Recovery System Flare (EP 22).
- C. The facility shall operate the VOC collection system and Vapor Recovery System Flare (EP 22) associated with this operation at all times the product (denatured and undenatured ethanol and flexible fuels<sup>(1)</sup>) is being loaded out in this emission unit.
- D. The Vapor Recovery System Flare (CE22) shall:
  - a. Be designed for and operated with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.
  - b. Be operated with a flame present prior to combustion. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
  - c. Be designed to ensure smokeless operation.
- E. The owner or operator shall maintain records which complies with the specifications in Construction Permit Condition D above for Ethanol Loadout Flare (CE22).
- F. The VOC collection system and Vapor Recovery System Flare (EP 22) shall be limited to operating 4,500 hours per rolling 12-month period.
- G. On a monthly basis, the owner or operator shall keep records of the number hours the VOC collection system and Vapor Recovery System Flare (EP 22) was operated. Calculate and record rolling 12-month totals in hours.
- H. Plant-wide total loadout (denatured and undenatured ethanol and flexible fuels <sup>(1)</sup>) for trucks and railcars shall not exceed 150,000,000 gallons per 12-month rolling period.
- I. The owner or operator shall calculate and record the rolling 12-month total of individual and cumulative amount of material (denatured and undenatured ethanol and flexible fuels <sup>(1)</sup>) loaded out each month of operation, in gallons.
- J. The total amount of flex fuel loaded at the truck and railcar loadout shall not exceed 30,000,000 gallons per twelve-month rolling period.
- K. The owner or operator shall calculate and record the rolling 12-month total of product flex fuel loaded through the truck and railcar loadouts each month of operation, in gallons.
- L. The maximum denaturant loaded out shall not exceed 7,500,000 gallons per twelve (12) month rolling period monthly. The denaturant used shall not contain any acetaldehyde.
- M. The owner or operator shall calculate and record the rolling 12-month total of denaturant loaded out each month of operation, in gallons.
- N. The maximum single HAP (except acetaldehyde) content of any denaturant used shall not exceed 2.82 pounds of HAP per gallon of denaturant.

ZLP 92 13-TV-007R2.

- O. The maximum total HAP content of any denaturant used shall not exceed 4.1 pounds of HAP per gallon of denaturant.
- P. The owner or operator shall retain Safety Data Sheets (SDS) showing the content of each HAP in the material for all materials handled at this loadout process. The owner or operator shall record the HAP content in pounds per gallon in the denaturant or gasoline loaded out from this emission unit (used in products or loaded out directly).
- Q. The facility shall comply with the applicable standards of Subpart BBBBB, 40 CFR 63.11080 through 40 CFR 63.11100 for loading racks (Table 2) when loading out flexible fuels <sup>(1)</sup>.
- R. The owner or operator shall submit the applicable notifications as required in 40 CFR 63.11093 for Subpart BBBBBB.
- S. The owner or operator shall keep records as required in 40 CFR 63.11094 and reports as required in 40 CFR 63.11095 for Subpart BBBBBB.

Authority for Requirement: DNR Construction Permit 06-A-601-S8 567 IAC 23.1(4) "eb"

(1) For this permit flexible fuels refers to a blend of gasoline and ethanol with a minimum of 68% ethanol and a maximum of 85% ethanol (E85).

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 35

Stack Opening, (inches, dia.): 96 Exhaust Flow Rate (scfm): 500 Exhaust Temperature (°F): 1,400 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-601-S8

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

ZLP 93 13-TV-007R2.

<b>Monito</b>	oring	Requir	<u>rements</u>
m1	,		C .1 •

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🛛 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ☐ No ⊠

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

The data pertaining to the plan shall be 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 Numbers: T61 and T62**

# **Associated Equipment**

Associated Emission Unit ID Numbers: T61; T62 Emissions Control Equipment ID Number: T61; T62

Emissions Control Equipment Description: Internal Floating Roof

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
T61	T61	Final Product Storage Tank #1	Denatured or Undenatured Ethanol	1,500,000 gallons	06-A-604-S3
T62	T62	Final Product Storage Tank #2		1,500,000 gallons	06-A-605-S3

# **Applicable Requirements**

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

The emissions from these emission points shall not exceed the levels specified below.

There are no applicable emission limits for these emission points at this time.

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

The owner/operator of the equipment 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. This tank shall be used to store only denatured ethanol or undenatured ethanol.

#### **Reporting and Recordkeeping**

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
- B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR §60.115b through §60.116b.

Authority for Requirement: DNR Construction Permits 06-A-604-S3; 06-A-605-S3 567 IAC 23.1(2)"ddd"

ZLP 95 13-TV-007R2.

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Exhaust Flow Rate (scfm): Ambient

Exhaust Temperature (°F): Breathing Loss

Authority for Requirement: DNR Construction Permits 06-A-604-S3; 06-A-605-S3

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

ZLP 96 13-TV-007R2.

# **Emission Point ID Number: T63**

**Associated Equipment** 

Associated Emission Unit ID Numbers: T63 Emissions Control Equipment ID Number: T63

Emissions Control Equipment Description: Internal Floating Roof

Emission Unit vented through this Emission Point: T63 Emission Unit Description: 200 Proof Ethanol Storage Tank

Raw Material/Fuel: 200 Proof Ethanol Rated Capacity: 200,000 gallons

# **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.

There are no applicable emission limits 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. 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. This tank shall be used to store only 200-proof anhydrous ethanol.

# Reporting and Recordkeeping

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
- B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR §60.115b through §60.116b.

Authority for Requirement: DNR Construction Permit 06-A-606-S3

567 IAC 23.1(2)"ddd"

ZLP 97 13-TV-007R2.

#### **Emission Point Characteristics**

This emission point shall conform to the specifications listed below.

Exhaust Flow Rate (scfm): Ambient

Exhaust Temperature (°F): Breathing Loss

Authority for Requirement: DNR Construction Permit 06-A-606-S3

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# **Emission Point ID Number: T64**

**Associated Equipment** 

Associated Emission Unit ID Numbers: T64 Emissions Control Equipment ID Number: T64

Emissions Control Equipment Description: Internal Floating Roof

\_\_\_\_\_

Emission Unit vented through this Emission Point: T64 Emission Unit Description: Denaturant Storage Tank

Raw Material/Fuel: Denaturant Rated Capacity: 200,000 gallons

# **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.

There are no applicable emission limits 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. 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. This tank shall be used to store only denaturant (unleaded gasoline).
- C. Plant-wide denaturant (unleaded gasoline) used in the production of denatured ethanol shall be limited to a maximum of 7.5 million gallons per twelve month rolling period.

# Reporting and Recordkeeping

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
- B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR §60.115b through §60.116b.
- C. The owner or operator shall keep records of the amount of denaturant (unleaded gasoline) used in the production of denatured ethanol and update the twelve month rolling total on a monthly basis.

Authority for Requirement: DNR Construction Permit 06-A-607-S4

567 IAC 23.1(2)"ddd"

ZLP 99 13-TV-007R2.

### **Emission Point Characteristics**

This emission point shall conform to the specifications listed below.

Exhaust Flow Rate (scfm): Ambient

Exhaust Temperature (°F): Breathing Loss

Authority for Requirement: DNR Construction Permit 06-A-607-S4

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# **Emission Point ID Number: T64B**

Associated Equipment

Associated Emission Unit ID Numbers: T64B Emissions Control Equipment ID Number: T64B

Emissions Control Equipment Description: Internal Floating Roof

Emission Unit vented through this Emission Point: T64B Emission Unit Description: Fuel-grade Gasoline Storage Tank

Raw Material/Fuel: Fuel-grade Gasoline

Rated Capacity: 20,305 gallons

# **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.

There are no applicable emission limits 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. 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 facility shall comply with the applicable standards of Subpart BBBBB, 40 CFR 63.11080 through 40 CFR 63.11100 for gasoline storage tanks.
- C. This tank shall be used to store only fuel-grade gasoline. (1)
- D. Tank throughput shall be limited to a maximum of 1.0 million gallons per twelve- month rolling period.
- (1) For this permit gasoline refers to gasoline or a blend of gasoline and up to 85% ethanol (E85) (i.e., flexible fuel).

ZLP 101 13-TV-007R2,

#### **Reporting and Recordkeeping**

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
- B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR 60.115b through 60.116b.
- C. The owner or operator shall keep records as required in 40 CFR 63.11094 and reports as required in 40 CFR 63.11095 for Subpart BBBBBB.
- D. The owner or operator shall keep records of the amount of fuel-grade gasoline received and update the twelve- month rolling total on a monthly basis.

Authority for Requirement: DNR Construction Permit 13-A-340-S1

567 IAC 23.1(4) "eb" 567 IAC 23.1(2)"ddd"

# **Emission Point Characteristics**

This emission point shall conform to the specifications listed below.

Exhaust Flow Rate (scfm): Ambient Exhaust Temperature (°F): Breathing Loss

Authority for Requirement: DNR Construction Permit 13-A-340-S1

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# **Emission Point ID Number: T65**

Associated Equipment

Associated Emission Unit ID Numbers: T65 Emissions Control Equipment ID Number: T65

Emissions Control Equipment Description: Internal Floating Roof

Emission Unit vented through this Emission Point: T65

Emission Unit Description: 190 Proof Ethanol Tank

Raw Material/Fuel: 190 Proof Ethanol Rated Capacity: 200,000 gallons

# **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.

There are no applicable emission limits 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. 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. This tank shall be used to store only 190-proof anhydrous ethanol.

#### **Reporting Recordkeeping**

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
- B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR §60.115b through §60.116b.

Authority for Requirement: DNR Construction Permit 06-A-608-S3

567 IAC 23.1(2)"ddd"

### **Emission Point Characteristics**

This emission point shall conform to the specifications listed below.

Exhaust Flow Rate (scfm): Ambient

Exhaust Temperature (°F): Breathing Loss

Authority for Requirement: DNR Construction Permit 06-A-608-S3

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

ZLP 104 13-TV-007R2.

# **Emission Point ID Numbers: EP-B10 & EP-B11**

Associated Equipment

Associated Emission Unit ID Numbers: EU-B10 & EUB-11 Emissions Control Equipment ID Number: CE-B10 & CE-B11 Emissions Control Equipment Description: Low NO<sub>x</sub> Burners

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EP-B10	EU-B10	New Package Boiler 1	Natural Car	180 MMBtu/hr	17-A-526-S1
EP-B11	EU-B11	New Package Boiler 2	Natural Gas	180 MMBtu/hr	17-A-527-S1

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter

Emission Limit(s): 1.22 lb/hr, 0.1 gr/dscf for each boiler

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

567 IAC 23.3(2)"a"

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

Emission Limit(s): 0.10 lb/hr, 500 ppmv for each boiler

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

567 IAC 23.3(3)"e"

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

Emission Limit(s): 6.66 lb/hr, 0.1 lb/MMBtu for each boiler

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

567 IAC 23.1(2)"ccc"

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 9.99 lb/hr for each boiler

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

Pollutant: Total HAP

Emission Limit(s): 0.22 lb/hr for each boiler

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

# **Operating Limits with Associated Monitoring 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 Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

# **EQUIPMENT OPERATION and NSPS REQUIREMENTS**

- A. Boiler #2 (EU-PB11) is limited to firing only on natural gas.
  - i. The owner or operator shall maintain records demonstrating that Boiler #2 (EU-PB11) can combust only natural gas.
- B. The owner or operator shall comply with the applicable requirements in 40 CFR Part 60, Subpart Db [§60.40b §60.49b], including those not specifically mentioned in this permit.
  - i. Per 40 CFR 60.44b(i) of Subpart Db, the owner or operator shall determine compliance with the emission limit of 0.1 lb of NO<sub>x</sub> per million Btu on a 30-day rolling average basis.
  - ii. Per 40 CFR 60.49b(d)(1) of Subpart Db, the owner or operator shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for natural gas 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. Per 40 CFR §60.41b of Subpart Db, *annual capacity factor "F"* means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at a maximum steady state design heat input capacity.
  - iii. Per 40 CFR 60.49b(g) of Subpart Db, the owner or operator shall maintain records of the following information for each steam generating unit operating day. This information shall be submitted in a report, as required in 40 CFR §60.49b(i) of Subpart Db.
    - 1. Calendar date:
    - 2. The average hourly  $NO_x$  emission (as  $NO_2$ ) rates measured;
    - 3. The 30-day average NO<sub>x</sub> emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
    - 4.Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emission standard in §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

ZLP 106 13-TV-007R2.

- 5.Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- 6.Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- 7.Identification of the "F" factor used for calculations, method of determination, and type of fuel combusted;
- 8.Identification of the times when the pollutant concentration exceeds full span of the CEMS;
- 9.Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
- 10. Results of daily CEMS drift tests and quarterly accuracy assessments as required in 40 CFR Appendix F, Procedure 1.

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

567 IAC 23.1(2)"ccc"

# NSPS/NESHAP Applicability

These emission units are subject to 40 CFR 60 Subpart A General Provisions and 40 CFR 60 Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

Authority for Requirement: 40 CFR 60 Subpart A

40 CFR 60 Subpart Db

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 61 Stack Opening, (inches, dia.): 54 Exhaust Flow Rate (scfm): 55,200 Exhaust Temperature (°F): 295

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1

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

#### **Monitoring Requirements**

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

# **Continuous Emissions Monitoring:**

- A. Monitoring Requirements for the NSPS Nitrogen Oxides Emission Standard:
  - 1. The owner or operator shall continuously monitor emissions of nitrogen oxides ( $NO_x$ ) discharged to the atmosphere through EP-B11. Therefore, in accordance with 40 CFR 60.48b(b)(1), the owner or operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring  $NO_x$  and  $O_2$  (or  $CO_2$ ) emissions discharged to the atmosphere from EP-B11. The owner or operator shall also record the output of the system.
    - i. In accordance with 40 CFR §60.48b(b)(c), the CEMS required by this permit shall be operated and the data recorded during all periods of operation including periods of startup, shutdown, malfunction, or emergency conditions, except for CEMS breakdowns, repairs calibration checks, and zero and span adjustments.
    - ii. In accordance with 40 CFR §60.48b(b)(d), the 1-hour average NO<sub>x</sub> emission rates measured by the NO<sub>x</sub> CEMS required by 40 CFR §60.48b(b) and §60.13(h) shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR §60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR §60.13(h)(2).
    - iii. The owner or operator shall follow the procedures in 40 CFR §60.13 for installation, evaluation, and operation of the CEMS.
    - iv. The CEMS required by this permit to monitor NO<sub>x</sub> emissions discharged to the atmosphere through EP-B11 shall be designed to meet the requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 (Specifications and Test Procedures for SO2 and NOx Continuous Emission Monitoring Systems in Stationary Sources) and Performance Specification 6 (Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources).
    - v. Per 40 CFR §60.48(b)(f), when NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.
- B. Monitoring Requirements for the Non-NSPS Nitrogen Oxides Emission Standard:
  - 1. The owner or operator shall demonstrate compliance with the non-NSPS emission standard, i.e., pound-per-hour limit in Condition 1b of this permit, using the CEMS required in Condition 6.A.1 of this permit along with a continuous flow monitoring system (flowmeter).
    - i. The owner or operator shall install, calibrate, maintain, and operate a flowmeter to aid in calculating the NO<sub>x</sub> emission rate, in pounds/hour,

ZLP 108 13-TV-007R2.

- discharged from EP-B11 to the atmosphere. The flowmeter shall be installed, evaluated, operated, and data collected meeting the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 (Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources) and 40 CFR Part 60, Appendix F, Procedure 1 (Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination).
- ii. The owner or operator shall record the output of the system for measuring the volumetric flow of exhaust gases discharged to the atmosphere.
- C. The CEMS required by this permit shall comply with the applicable requirements in Appendix F to 40 CFR Part 60 (*Quality Assurance Procedures*), including, but not limited to the following requirements:
  - 1. The owner or operator shall develop and implement a quality control (QC) program. As a minimum, each QC program shall include written procedures which should describe in detail, complete, step-by-step procedures, and operations for each of the following activities:
    - i. Calibration of the CEMS;
    - ii. Calibration drift determination and adjustment of the CEMS;
    - iii. Preventive maintenance of the CEMS (including spare parts inventory);
    - iv. Data recording, calculations, and reporting;
    - v. Accuracy audit procedures including sampling and analysis methods; and
    - vi. Program of corrective action for malfunctioning CEMS.
  - 2. Whenever excessive inaccuracies occur for two consecutive quarters, the owner or operator shall revise the current written procedures or shall modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.
  - 3. The owner or operator shall keep on-site a copy of these written procedures and shall make them available for inspection by the Department.
- D. The owner or operator shall conduct a Relative Accuracy Test Audit (RATA) at least once every four calendar quarters and shall submit RATA reports to the Department as indicated in this permit (see Permit Condition 12 *Notification, Reporting, and Recordkeeping*).
  - 1. If requested by the Department, the owner or operator shall coordinate the quarterly 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.
- E. Operation and Data Handling Requirements for Continuous Emission Monitoring of Non-NSPS Emission Standards:
  - 1. All CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission unit associated with EP-B11, except for CEMS breakdowns and repairs. Data is recorded during calibration checks and zero span adjustments.
    - i. The 1-hour average  $NO_x$  emission rates measured by the CEMS required by this permit shall be used to demonstrate compliance with the emission standards in this permit. At least two data points must be used to calculate each 1-hour average.

- ii. For each hour of missing emission data for  $NO_x$ , the owner or operator shall substitute data as follows:
  - a. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall substitute data by means of the automated data acquisition and handling system for each hour of missing data period according to the following procedures:
    - For a missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by the CEMS for the hour before and the hour after the missing data period.
    - For a missing data period greater than 24 hours, substitute the greater of:
      - i. The 90<sup>th</sup> percentile hourly pollutant concentration recorded by the CEMS during the previous 720 quality-assured monitor operating hours; or
      - ii. The average of the hourly pollutant concentrations recorded by the CEMS for the hour before and the hour after the missing data period.
  - b. If the monitor data availability is at least 90.0%, the owner or operator shall substitute data by means of the automated data acquisition and handling system for each hour of missing data period according to the following procedures:
    - For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by the CEMS for the hour before and the hour after the missing data period.
    - For a missing data period of more than 8 hours, substitute the greater of:
      - i. The 95<sup>th</sup> percentile hourly pollutant concentration recorded by the CEMS during the previous 720 quality-assured monitor operating hours; or
      - ii. The average of the hourly pollutant concentrations recorded by the CEMS for the hour before and the hour after the missing data period.
  - c. 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.

Authority for Requirement: DNR Construction Permits 17-A-526-S1 & 17-A-527-S1 567 IAC 23.1(2)"ccc"

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 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)

ZLP 111 13-TV-007R2,

# 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, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, 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 Permitting & Standards Branch, 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)

ZLP 112 13-TV-007R2.

## **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 emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
- 4. The fee shall be submitted annually by July 1 with forms specified by the department.
- 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:

ZLP 114 13-TV-007R2,

- 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) 725-8694 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(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

ZLP 118 13-TV-007R2.

#### 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

ZLP 120 13-TV-007R2.

## **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 <u>except</u> 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.

ZLP 121 13-TV-007R2.

- 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 or greenhouse gas generating substances 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 <u>not</u> required if the permit has a remaining term of less than three years;
  - b. Reopening and revision on this ground is <u>not</u> 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 <u>not</u> 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;

ZLP 122 13-TV-007R2,

- 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

ZLP 123 13-TV-007R2.

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"

ZLP 124 13-TV-007R2,

#### 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 Wallace State Office Building 502 E 9<sup>th</sup> St.
Des Moines, IA 50319-0034 (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:

Iowa Compliance Officer

Air Branch

Enforcement and Compliance Assurance Division

U.S. EPA Region 7

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

Wallace State Office Building

502 E 9<sup>th</sup> St.

Des Moines, IA 50319-0034

(515) 725-8200

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

1101 Commercial Court, Suite 10 Manchester, IA 52057 (563) 927-2640

#### Field Office 3

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

#### Field Office 5

Wallace State Office Building 502 E 9<sup>th</sup> St. Des Moines, IA 50319-0034 (515) 725-0268

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

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

## Field Office 2

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

### Field Office 4

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

#### Field Office 6

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

## **Linn County Public Health**

Air Quality Branch 1020 6<sup>th</sup> Street SE Cedar Rapids, IA 52401 (319) 892-6000

# V. Appendix

- A. 40 CFR 60 Subpart A General Provisions <a href="http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.a">http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.a</a>
- B. 40 CFR 60 Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.d\_0b
- C. 40 CFR 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 <a href="http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.k\_0b">http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.k\_0b</a>
- D. 40 CFR 60 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 November 7, 2006. <a href="http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.vv">http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.vv</a>
- E. 40 CFR 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines <a href="http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.iiii">http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.iiii</a>
- F. 40 CFR 63 Subpart A General Provisions http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.10.63.a
- G. 40 CFR 63 Subpart ZZZZ National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines <a href="http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.zzzz">http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.zzzz</a>

ZLP 127 13-TV-007R2.