

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

**Name of Permitted Facility: Homeland Energy Solutions, LLC**

**Facility Location: 2779 IA Hwy 24, Lawler, IA 52154**

**Air Quality Operating Permit Number: 14-TV-001R1**

**Expiration Date: November 18, 2023**

**Permit Renewal Application Deadline: May 18, 2023**

**EIQ Number: 92-6930**

**Facility File Number: 19-04-002**

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**Responsible Official**

**Name: Mr. Kevin Howes**

**Title: Plant Manager**

**Mailing Address: 2779 IA Hwy 24, Lawler, IA 52154**

**Phone #: (563) 238-5555**

**Permit Contact Person for the Facility**

**Name: Ms. Rita Dunn**

**Title: Environmental Manager**

**Mailing Address: 2779 IA Hwy 24, Lawler, IA 52154**

**Phone #: (563) 238-5555**

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

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

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Lori Hanson

Supervisor of Air Operating Permits Section

Date

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## Abbreviations

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

### Pollutants

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

# I. Facility Description and Equipment List

Facility Name: Homeland Energy Solutions LLC

Permit Number: 14-TV-001R1

Facility Description: Ethanol Fuel Production (SIC 2869)

Animal Food Manufacturing (SIC 2048)

## Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-S10	EU-10a	DDGS Dryer A	07-A-955-P5
	EU-10b	DDGS Dryer B	
	EU-B10	Waste Heat Recovery Boiler (HRSG)	
	EU-P70	DDGS Cooling Drum	
	EU-55a	Mixer	
	EU-55d	Slurry Tank #1	
	EU-55e	Slurry Tank #2	
	EU-55f	Beer Column	
	EU-55g	Side Stripper	
	EU-55h	Rectifier Column	
	EU-55i	190 Proof Condenser	
	EU-55j	Molecular Sieve	
	EU-55k	200 Proof Condenser	
	EU-55l	Centrate Tank #1	
	EU-55n	Evaporators	
	EP-S11	EU-10c	
EU-10d		DDGS Dryer D	
EU-B11		Waste Heat Recovery Boiler (HRSG)	
EU-P70		DDGS Cooling Drum	
EU-55a		Mixer	
EU-55d		Slurry Tank #1	
EU-55e		Slurry Tank #2	
EU-55f		Beer Column	
EU-55g		Side Stripper	
EU-55h		Rectifier Column	
EU-55i		190 Proof Condenser	
EU-55j		Molecular Sieve	
EU-55k		200 Proof Condenser	
EU-55m		Centrate Tank #2	
EU-55n	Evaporators		

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
EP-S15	15a	DDGS Dryer E	17-A-118-S2
	15b	DDGS Dryer F	
	15c	Centrate Tank #3	
EP-S20	EU-20a	Corn Unloading Pit #1 for Trucks	07-A-964-P5
	EU-20b	Corn Unloading Pit #2 for Trucks	
	EU-20c	Corn Unloading Pit #3 for Railcar	
	EU-20d	Elevator Leg #1 from Corn Unloading Pits	
	EU-20e	Elevator Leg #2 from Corn Unloading Pits	
	EU-20f	Storage Bin Fill Conveyor #1	
	EU-20g	Storage Bin Fill Conveyor #2	
	EU-20o	Storage Bin Fill Conveyor #3	
	EU-20h	Corn Storage Bin #1	
	EU-20i	Corn Storage Bin #2	
	EU-20p	Corn Storage Bin #3	
	EU-20j	Dirty Corn Day Bin	
	EU-20k	Clean Corn Day Bin	
	EU-20m	Reclaim Conveyor #2	
	EU-20n	Reclaim Conveyor #3	
EU-20q	Reclaim Conveyor #4		
EU-20r	Reclaim Leg		
EU-20s	Cross Conveyor		
EP-S21	EU-21A	Storage Bin Fill Conveyor #4	16-A-245-S3
	EU-21B	Corn Storage Bin #4	
	EU-21C	Reclaim Conveyor #5	
	EU-21D	Storage Bin Fill Conveyor #5	
	EU-21E	Corn Storage Bin #5	
	EU-21F	Reclaim Conveyor #6	
EP-S22	EU-22a	Receiving Pit #4	18-A-221
	EU-22b	Receiving Pit Conveyor	
	EU-22c	Receiving Transfer Conveyor	
	EU-22d	Receiving Leg	
EP-S30	EU-30a	Hammermill #1	07-A-966-P2
	EU-30b	Hammermill #2	
	EU-30c	Hammermill #3	
	EU-30d	Hammermill #4	
	EU-30e	Product Recovery Cyclone	
	EU-20k	Clean Corn Day Bin	
EP-S35	EU-35	Hammermill #5	14-A-149-S2
	EU-34	Surge Bin	14-A-150-S2
EP-S36	EU-36	Hammermill #6	
EP-S37	EU-37	Hammermill #7	17-A-119-S1
	EU-34	Surge Bin	17-A-120-S2
EP-S38	EU-38	Hammermill #8	

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
EP-S40 EP-S41	EU-40a	Fermenter #1	07-A-970-P8 18-A-139-P
	EU-40b	Fermenter #2	
	EU-40c	Fermenter #3	
	EU-40d	Fermenter #4	
	EU-40e	Fermenter #5	
	EU-40f	Fermenter #6	
	EU-40g	Fermenter #7	
	EU-40i	Fermenter #8	
	EU-40k	Fermenter #9	
	EU-40l	Fermenter #10	
	EU-40m	Fermenter #11	
	EU-40n	Fermenter #12	
	EU-40j	Degas Tank	
	EU-40h	Beerwell	
	EU-41a	Yeast Propagation Tank #1	
EU-41b	Yeast Propagation Tank #2		
EU-41c	Yeast Propagation Tank #3		
EP-S75	EU-75	DDGS Cooling Tube	17-A-122-S1
EP-S90	EU-90	DDGS Loadout	07-A-980-P3
EP-S110	EU-P110	Emergency Diesel Fire Pump	07-A-982-P1
EP-S120	EU-P120	Utility Boiler #1	17-A-121-S1
EP-11	EU-11a	Methanator #1	07-A-957-P1
	EU-11b	Methanator #2	
	EU-11c	Methanator #3	
	EU-11d	Methanator #4	
EP-22	EU-F50	Ethanol Loadout	07-A-965-P6
EP-F60	EU-F60	VOC Emissions from Equipment Leaks	07-A-971-P2
EP-F80	EU-F80	Cooling Tower	07-A-979-P1
EP-F81	EU-F81	Cooling Tower #2	14-A-675-S2
EP-F100	EU-F100	Dust Emissions from Internal Plant Roads	07-A-981-P1
EP-T61	EU-T61	Ethanol Storage Tank	07-A-972-P2
EP-T62	EU-T62	Ethanol Storage Tank	07-A-973-P2
EP-T63	EU-T63	200 Proof Ethanol Tank	07-A-974-P2
EP-T64	EU-T64	Denaturant Tank	07-A-975-P1
EP-T65	EU-T65	190 Proof Ethanol Tank	07-A-976-P2
EP-T66	EU-T66	Fuel Additive Tank	07-A-977-P1
EP-T67	EU-T67	Ethanol Storage Tank	14-A-674
EP-F01	EU-F01	Grain Handling Uncaptured Emissions	N/A
EP-F02	EU-F02	DDGS Loading Uncaptured Emissions	N/A

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**Insignificant Activities Equipment List**

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<b>Insignificant Emission Unit Number</b>	<b>Insignificant Emission Unit Description</b>
EU001	1000 Gallon Diesel Tank
EU002	500 Gallon Diesel Tank
EU003	500 Gallon Gasoline Storage Tank
SUE01	Corn Oil Loading Operation

## II. Plant-Wide Conditions

Facility Name: Homeland Energy Solutions LLC  
Permit Number: 14-TV-001R1

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

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### Permit Duration

The term of this permit is: 5 years from permit issuance  
Commencing on: November 19, 2018  
Ending on: November 18, 2023

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

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### Emission Limits

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

Opacity (visible emissions): 40% opacity  
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume  
Authority for Requirement: 567 IAC 23.3(3)"e"

#### Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed 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"

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

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

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

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

This facility is an affected source and these General Provisions apply to the facility. The affected units are EU-B10, EU-B11, EU-P120, EU-F60, EU-P110, all emission units associated with EP-S20 Grain Receiving, EU-21A, EU-21B, EU-21C, EU-21D, EU-21E, EU-21F, EU-22a, EU-22b, EU-22c, EU-T61, EU-T62, EU-T63, EU-T64, EU-T65, and EU-T67.

See Appendix for the link of the Standard.

Authority for Requirement: 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 the EU-B10 and EU-B11.

See Appendix for the link of the Standard.

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

#### **40 CFR 60 Subpart Dc Requirements**

This facility is subject to Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The affected unit is EU-P120.

See Appendix for the link of the Standard.

Authority for Requirement: 40 CFR 60 Subpart Dc  
567 IAC 23.1(2)"lll"

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

This facility is subject to Standards of Performance for Grain Elevators. The affected units are the emission units associated with EP-S20 Grain Receiving; and EU-21a, EU-21b, EU-21c, EU-22a, EU-22b, and EU-22c.

See Appendix for the link of the Standard.

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

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

This facility is subject to Standards of Performance for 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 EU-T61, EU-T62, EU-T63, EU-T64, EU-T65, and EU-T67.

See Appendix for the link of the Standard.

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

#### **40 CFR 60 Subpart VVa 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. The facility chose to comply with the provisions of NSPS Subpart VVa, 40 CFR Part 60 §60.480a to satisfy the requirements of NSPS Subpart VV. The affected units are equipment in VOC service and any applicable devices and systems (as defined in 40 CFR 60.481) in the entire facility. The owner or operator shall comply with the applicable requirements in 40 CFR 60.480 through 60.489, including recordkeeping requirements in 40 CFR 60.486 and reporting requirements in 40 CFR 60.487.

See Appendix for a link to the Standard.

Authority for Requirement: 40 CFR 60 Subpart VVa  
567 IAC 23.1(2)"nn"

#### **40 CFR 60 Subpart III Requirements**

This facility is subject to Standards of Performance for Stationary Compression Ignition Internal Combustion. The affected unit is EU-P110.

See Appendix for the link of the Standard.

Authority for Requirement: 40 CFR 60 Subpart III  
567 IAC 23.1(2)"yyy"

#### **40 CFR 63 Subpart A Requirements**

This facility is an affected source and these General Provisions apply to the facility. The affected units are all emission units associated with fermentation (EP-S40 and EP-S41) and distillation (EP-S10 and EP-S11), EU-F60, EU-T61, EU-T62, EU-T63, EU-T64, EU-T65, EU-T67, EU-P110, and EU-S120.

See Appendix for the link of the Standard.

Authority for Requirement: 40 CFR 63 Subpart A  
567 IAC 23.1(4)

#### **40 CFR 63 Subpart FFFF Requirements**

This facility is subject to the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). The affected units are multiple emission units associated with fermentation (EP-S40 and EP-S41) and distillation (EP-S10 and EP-S11), EU-F60, EU-T61, EU-T62, EU-T63, EU-T64, EU-T65, and EU-T67.

See Appendix for the link of the Standard.

Authority for Requirement: 40 CFR 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

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

This facility is subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP). The affected unit is EU-P110.

See Appendix for the link of the Standard.

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

#### **40 CFR 63 Subpart DDDDD Requirements**

This facility is subject to the National Emission Standards For Hazardous Air Pollutants For Industrial, Commercial, And Institutional Boilers And Process Heaters. The affected unit is EU-P120.

See Appendix for the link of the Standard.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

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### III. Emission Point-Specific Conditions

Facility Name: Homeland Energy Solutions LLC  
 Permit Number: 14-TV-001R1

#### Emission Point ID Numbers: EP-S10 and EP-S11

##### Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Number: CE-C10; CE-C11; CE-C70

Emissions Control Equipment Description: Multiclones and Thermal Oxidizers with Low NO<sub>x</sub> Burners; DDGS Cooling Baghouses

Continuous Emissions Monitors ID Numbers: CMS-01, CMS-02

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Control Equipment	
EP-S10	EU-P10a	DDGS Dryer A	Natural gas/ Biogas/ Process off-gasses	50 MMBtu/hr	TO (C10)	
	EU-P10b	DDGS Dryer B	Natural gas/ Process off-gasses	50 MMBtu/hr		
	EU-B10	Waste Heat Recovery Boiler	Natural Gas	150 MMBtu/hr	None (Emission unit is located post control)	
	EU-P70	DDGS Cooling Drum	DDGS	80 ton/hr	TO (C10) and Baghouse (C70)	
	Distillation Process					
	EU-P55a	Mixer	Mash	13,500 gallons	DDGS Dryer A (EU P10a) or DDGS Dryer B (EU P10b) and TO C10)	
	EU-P55d	Slurry Tank #1	Mash	25,000 gallons		
	EU-P55e	Slurry Tank #2	Mash	25,000 gallons		
	EU-P55f	Beer Column	Beer	3,000 gal/min		
	EU-P55g	Side Stripper	Beer	3,000 gal/min		
	EU-P55h	Rectifier Column	Beer	3,000 gal/min		
	EU-P55i	190 Proof Condenser	Beer	3,000 gal/min		
	EU-P55j	Molecular Sieve	190 Proof Ethanol	550 gal/min		
	EU-P55k	200 Proof Condenser	Ethanol	550 gal/min		
	EU-P55l	Centrate Tank #1	Centrifuge Feed	1,500 gal/min		
	EU-P55n	Evaporators	Thin Stillage	3,000 gal/min		
	EU-11a	Methanator #1	Biogas	80 scfm		
	EU-11b	Methanator #2	Biogas	80 scfm		
EU-11c	Methanator #3	Biogas	80 scfm			
EU-11d	Methanator #4	Biogas	80 scfm			

EP	EU	Emission Unit Description	Raw Material	Rated Capacity	Control Equipment	
EP-S11	EU-P10c	DDGS Dryer C	Natural gas/ Process off-gases	50 MMBtu/hr	TO (C11)	
	EU-P10d	DDGS Dryer D	Natural gas/ Process off-gases	50 MMBtu/hr		
	EU-B11	Waste Heat Recovery Boiler	Natural Gas	150 MMBtu/hr	None (emission unit is located post control)	
	EU-P70	DDGS Cooling Drum	DDGS	80 ton/hr	TO (C11) and Baghouse (C70)	
	Distillation Process					
	EU-P55a	Mixer	Mash	13,500 gallons	DDGS Dryer C (EU P10c) of DDGS Dryer D (EU P10d) and TO (C11)	
	EU-P55d	Slurry Tank #1	Mash	25,000 gallons		
	EU-P55e	Slurry Tank #2	Mash	25,000 gallons		
	EU-P55f	Beer Column	Beer	3,000 gal/min		
	EU-P55g	Side Stripper	Beer	3,000 gal/min		
	EU-P55h	Rectifier Column	Beer	3,000 gal/min		
	EU-P55i	190 Proof Condenser	Beer	3,000 gal/min		
	EU-P55j	Molecular Sieve	190 Proof Ethanol	550 gal/min		
	EU-P55k	200 Proof Condenser	Ethanol	550 gal/min		
	EU-P55m	Centrate Tank #2	Centrifuge Feed	1,500 gal/min		
EU-P55n	Evaporators	Thin Stillage	3,000 gal/min			

### Applicable Requirements

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

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

#### PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

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

Emission Limit(s): 0.0094 gr/dscf <sup>(2)</sup>; 16.11 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.0094 gr/dscf <sup>(2)</sup>; 16.11 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

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

Emission Limit(s): 0.02 lb/MMBtu <sup>(2)</sup>; 21.90 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

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

Emission Limit(s): 0.04 lb/MMBtu <sup>(4)</sup>; 43.80 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 1.48 lb/hr <sup>(2)</sup>; 98% Reduction <sup>(5)</sup> or 0.006 lb/MMBtu <sup>(2)</sup>; 6.48 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 0.086 lb/MMBtu <sup>(4)</sup>; 94.17 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

<sup>(1)</sup>Standard is expressed as a six-minute average.

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

<sup>(3)</sup>Ton per year limits are expressed as 12-month rolling totals and are established as BACT. The ton per year limits include all normal operating emissions and any emissions during start-up, shutdown, and malfunction.

<sup>(4)</sup>Standard is expressed as a 30-day rolling average.

<sup>(5)</sup>The percent reduction limit applies across CE-C10 and CE-C11, the thermal oxidizers.

#### NSPS Emission Limit:

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

Emission Limit(s): 0.10 lb/MMBtu <sup>(1) (2)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

40 CFR Part 60 Subpart Db

567 IAC 23.1(2)"ccc"

<sup>(1)</sup>Standard is expressed as a 30-day rolling average.

<sup>(2)</sup>Emission limit applies at all times including period of startup, shutdown, or malfunction.

#### Other Limits:

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

567 IAC 23.3(2)"d"

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

Emission Limit(s): 5.80 lb/hr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

567 IAC 23.3(2)"a"

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

Emission Limit(s): 5.0 lb/hr <sup>(1)</sup>; 500 ppmv

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5  
567 IAC 23.3(3)"e"

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

Emission Limit(s): 13.5 lb/hr <sup>(3)</sup>; 125.0 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 26.0 lb/hr <sup>(1)</sup>; 60.0 tons/yr

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant: Total HAP

Emission Limit(s): 20 ppmv <sup>(4)</sup>

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

<sup>(1)</sup> Standard is expressed as the average of three (3) runs.

<sup>(2)</sup> This limit for NO<sub>x</sub> emissions is expressed as a 30-day rolling average.

<sup>(3)</sup> This limit for NO<sub>x</sub> emissions is expressed as a one-hour block average daily maximum. The daily maximum is calculated from the NO<sub>x</sub> CEM (at least 2 data points must be used to calculate each 1-hour block average that is used to determine the daily maximum). <sup>(5)</sup>Standard is a 12-month rolling total.

<sup>(4)</sup>Actual limit from the MON MACT (40 CFR 63 Subpart FFFF) is 98% or more reduction of total organic HAP or no more than 20 ppmv total organic HAP in the exhaust stream, or a total resource effectiveness (TRE) of greater than 5.0.

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. DDGS Dryer A is limited to firing natural gas, biogas or process off-gasses.
  - a. Record monthly, the amount of biogas combusted in DDGS Dryer A. Calculate and record 12-month rolling totals.
- B. DDGS Dryer B, DDGS Dryer C, DDGS Dryer D, Thermal Oxidizer (C10), and Thermal Oxidizer (C11) are limited to firing natural gas or process off-gasses.
- C. DDGS Dryer A, DDGS Dryer B, and Thermal Oxidizer (C10) shall combust no more than 2,190 million cubic feet combined of natural gas per rolling 12-month period. DDGS Dryer C, DDGS Dryer D, and Thermal Oxidizer (C11) shall combust no more than 2,190 million cubic feet combined of natural gas per rolling 12-month period.
  - a. Per 40 CFR §60.49b(d), The owner or operator shall record and maintain records of the amounts of each fuel combusted in the Thermal Oxidizer/HRSG system during each day and calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. 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. The annual capacity factor

- is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
- b. Record monthly, the amount of natural gas combusted in DDGS Dryer A, DDGS Dryer B, DDGS Dryer C, DDGS Dryer D, and the Thermal Oxidizers combined. Calculate and record 12-month rolling totals.
- D. The Thermal Oxidizers (C10 and C11) shall maintain a temperature of no less than 1500 degrees Fahrenheit, on a 3-hour block average, when the Thermal Oxidizer is in operation.
- a. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the Thermal Oxidizers. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per a written facility-specific operation and maintenance plan.
  - b. The owner or operator shall keep hourly records of the operating temperature of the Thermal Oxidizers and record all periods (during actual operations) where the 3-hour block average temperature is less than 1500 degrees Fahrenheit. This requirement shall not apply on the days the Thermal Oxidizers, or the equipment the Thermal Oxidizers controls, is not in operation.
- E. The Thermal Oxidizer (C10) shall be operated at all times the DDGS Dryer A, DDGS Dryer B are in operation. The Thermal Oxidizer (C11) shall be operated at all times the DDGS Dryer C, DDGS Dryer D are in operation. Either Thermal Oxidizer (C10 or C11) shall be operated and used to control emissions at all times the DDGS Cooling Drum or the Distillation Equipment is in operation.
- F. The pressure reading at the inlet of the induced draft fan for the DDGS Cooling baghouse shall be maintained between 3 and 8 inches of H<sub>2</sub>O column.
- a. The owner or operator shall collect and record the pressure drop for the DDGS Cooling baghouse, in inches of H<sub>2</sub>O column, at a minimum of once every 15 minutes. This requirement shall not apply on the days that the baghouse or the equipment that the baghouse control is not in operation.
- G. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 through §60.19) and Subpart Db (40 CFR §60.40b through §60.49b).
- a. Maintain all applicable reporting and recordkeeping requirements as set forth in NSPS Subparts A (40 CFR §60.1 through §60.19) and Subpart Db (40 CFR §60.40b through §60.49b).
- H. Public access to the property shall be restricted by a fence or other plant security measures that are controlled by the owner or operator of this facility.
- I. The owner or operator shall maintain all records required by the NESHAP Subpart FFFF and all applicable referenced requirements.
- J. The following requirements represent BACT work practices for startup, shutdown and malfunction of this equipment:
- a. Startup: Startup of each dryer/thermal oxidizer system from cold conditions begins with the first introduction of natural gas fuel to any one of the combustion units in the system and continues until the dryers and thermal oxidizer all reach full load and the thermal oxidizer reaches its effective operating conditions or fourteen (14) hours, whichever occurs first. The thermal oxidizer effective operating conditions are met when the operating temperature reaches the level specific in Condition D above and



this permit shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:

- c. The identity of the equipment or source operation from which the deviation is being reported;
  - d. The time and duration of the deviation;
  - e. The cause of the deviation;
  - f. The steps taken to remedy the deviation; and
  - g. Whether the deviation resulted in excess emission.
- M. The owner or operator shall not exceed the process operating rate measured during the most recent performance test demonstrating compliance with the permitted emission limits.
- a. The owner or operator shall maintain a record of the most recent performance test that was completed. Records on the process operating rate shall be maintained on an hourly basis. If the process operating rate exceeds that of the most recent performance test, the owner or operator shall follow the requirements of condition 12.B of the construction permits.

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

### **NSPS and NESHAP Applicability**

The Waste Heat Recovery Boilers are subject to NSPS Subpart A – General Provisions and Subpart Db – Standards of Performance for Industrial – Commercial – Institutional Steam Generating Units.

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5  
40 CFR Part 60 Subpart Db  
567 IAC 23.1(2)"ccc"

This facility is subject to the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63 Subpart FFFF], and these emission units are affected sources as a Group 1 Continuous Process Vent. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5  
40 CFR Part 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

### **Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 84

Exhaust Flow Rate (scfm): 83,000

Exhaust Temperature (°F): 340

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 07-A-955-P5, 07-A-956-P5

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.

### **Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on these emission points are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

### **Stack Testing (For each emission point):**

Pollutant – Volatile Organic Compounds (VOC)

1st Stack Test to be Completed by (date) – Once every 36 months <sup>(1)</sup>

Test Method - 40 CFR 63, Appendix A, Method 320 or  
40 CFR 60, Appendix A, Method 18

Authority for Requirement – DNR Construction Permits 07-A-955-P5, 07-A-956-P5

<sup>(1)</sup> Subsequent tests shall be at least 6 months from previous test.

## **Continuous Emissions Monitoring:**

Pollutant – NO<sub>x</sub>

Operational Specifications – 40 CFR 60 Appendix B

Date of Initial System Calibration and Quality Assurance – 10/7/2009, 10/8/2009

Ongoing System Calibration/Quality Assurance – 40 CFR 60 Appendix B

Reporting & Record keeping – 40 CFR 60 Appendix B

Authority for Requirement – DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant – Diluent O<sub>2</sub>

Operational Specifications – 40 CFR 60 Appendix B

Date of Initial System Calibration and Quality Assurance – 10/7/2009, 10/8/2009

Ongoing System Calibration/Quality Assurance – 40 CFR 60 Appendix B

Reporting & Record keeping – 40 CFR 60 Appendix B

Authority for Requirement – DNR Construction Permits 07-A-955-P5, 07-A-956-P5

Pollutant – CO

Operational Specifications – 40 CFR 60 Appendix B

Date of Initial System Calibration and Quality Assurance – 10/7/2009, 10/8/2009

Ongoing System Calibration/Quality Assurance – 40 CFR 60 Appendix B

Reporting & Record keeping – 40 CFR 60 Appendix B

Authority for Requirement – DNR Construction Permits 07-A-955-P5, 07-A-956-P5

The owner or operator shall demonstrate compliance with the nitrogen oxide emission limits (both NSPS and non-NSPS) through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

The 1-hour average NO<sub>x</sub> emission rates measured by the NO<sub>x</sub> CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions 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).

Per 40 CFR 60.49b(f), when NO<sub>x</sub> emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, 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.

The owner or operator shall demonstrate compliance with the carbon monoxide emission limits through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 (PS4). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

The owner or operator shall demonstrate compliance with the NO<sub>x</sub> and CO pound per hour emission limits and the CO tons per year limit through the use of a continuous flow monitoring system (flowmeter). The owner or operator shall install, calibrate, maintain, and operate a flowmeter for calculating the lb/hr emission rates of NO<sub>x</sub> and CO discharged from the emission point to the atmosphere. The flowmeter shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 6 (PS6).

In accordance with 40 CFR Part 60 Subpart Db, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring either the oxygen content or the carbon dioxide content of the flue gas discharged from the emission point to the atmosphere.

All continuous monitoring systems (CMS) required by this permit shall be operated and data recorded during all periods of operation of the Dryers/TO/HRSG except for CMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments

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

The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

The 1-hour average emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.

For each hour of missing emission data, the owner or operator shall substitute data by:

1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
  - a. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentrations monitor for the hour before and the hour after the missing data period.
  - b. For missing data period greater than 24 hours, substitute the greater of:
    - i. The 90<sup>th</sup> percentile hourly concentration recorded by a pollutant

- concentration monitor during the previous 720 quality-assured monitor operating hours; or
    - ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- 2. If the monitor data availability is greater than or equal to 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
  - a. For the missing data period less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentrations monitor for the hour before and the hour after the missing data period.
  - b. For missing data period greater than 8 hours, substitute the greater of:
    - i. The 95<sup>th</sup> percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
    - ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- 3. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method that is approved by the Department.

Authority for Requirement – DNR Construction Permits 07-A-955-P5, 07-A-956-P5

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: EP-S15

### Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Number: CE-C15

Emissions Control Equipment Description: Regenerative Thermal Oxidizer

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-S15	EU-15a	DDGS Dryer E	DDGS; Natural Gas/Biogas	40 MMBtu/hr
	EU-15b	DDGS Dryer F	DDGS; Natural Gas/Biogas	40 MMBtu/hr
	EU-15c	Centrate Tank #3	Ethanol	1,200 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.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup> <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 17-A-118-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup>Standard is expressed as a six-minute average.

<sup>(2)</sup>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 (PM<sub>2.5</sub>)

Emission Limit(s): 9.0 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-118-S2

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

Emission Limit(s): 9.0 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-118-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 9.0 lb/hr <sup>(3)</sup>; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 17-A-118-S2  
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 10.0 lb/hr<sup>(3)</sup>; 500 ppmv  
Authority for Requirement: DNR Construction Permit 17-A-118-S2  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit(s): 9.3 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-118-S2

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 6.0 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-118-S2

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 18.0 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-118-S2

Pollutant: Single HAP  
Emission Limit(s): 1.5 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-118-S2

Pollutant: Total HAP  
Emission Limit(s): 3.7 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-118-S2

<sup>(3)</sup> The emission limit is expressed as the average of three (3) runs.

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. DDGS Dryers E and F and Thermal Oxidizer (C15) are limited to firing natural gas or process off-gasses.
- B. The Thermal Oxidizer (C15) shall maintain a temperature of no less than 50 degrees Fahrenheit, on a 3-hour block average, below the average operating temperature of C15 recorded during the most recent performance test that demonstrated compliance.
  - a. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the Thermal Oxidizer. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per a written facility-specific operation and maintenance plan.
  - b. The owner or operator shall keep hourly records of the operating temperature of the Thermal Oxidizer and record all periods (during actual operations) where the 3-hour block average temperature is more than 50 degrees Fahrenheit below the average temperature recorded during the last performance test that demonstrated compliance.

This requirement shall not apply on the days the Thermal Oxidizer, or the equipment the Thermal Oxidizer controls, is not in operation.

- C. The Thermal Oxidizer (C15) shall be operated at all times that DDGS Dryer E or DDGS Dryer F are in operation.
- D. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.
  - a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.
  - b. Any deviations from the control equipment operating parameters detailed above shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:
    - i. The identity of the equipment or source operation from which the deviation is being reported;
    - ii. The time and duration of the deviation;
    - iii. The cause of the deviation;
    - iv. The steps taken to remedy the deviation; and
    - v. Whether the deviation resulted in excess emission

Authority for Requirement: DNR Construction Permit 17-A-118-S2

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 128

Stack Opening, (inches, dia.): 84

Exhaust Flow Rate (scfm): 50,500

Exhaust Temperature (°F): 307

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 17-A-118-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that 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 – Volatile Organic Compounds (VOC)  
1st Stack Test to be Completed by (date) – Once every 36 months <sup>(1)</sup>  
Test Method - 40 CFR 63 Appendix A Method 320 or  
40 CFR 60 Appendix A Method 18  
Authority for Requirement – DNR Construction Permit 17-A-118-S2

<sup>(1)</sup> Last successful stack test was conducted on 02/27/2018.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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

Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Number: CE-C20

Emissions Control Equipment Description: Baghouse

EP	EU	Emission Unit Description	Raw Material	Rated Capacity *
EP-S20	EU-20a	Corn Unloading Pit #1 for Trucks	Grain	15,000 bushels/hr
	EU-20b	Corn Unloading Pit #2 for Trucks	Grain	15,000 bushels/hr
	EU-20c	Corn Unloading Pit #3 for Railcar	Grain	35,000 bushels/hr
	EU-20d	Elevator Leg #1 from Corn Unloading Pits	Grain	20,000 bushels/hr
	EU-20e	Elevator Leg #2 from Corn Unloading Pits	Grain	20,000 bushels/hr
	EU-20f	Storage Bin Fill Conveyor #1	Grain	40,000 bushels/hr
	EU-20g	Storage Bin Fill Conveyor #2	Grain	40,000 bushels/hr
	EU-20o	Storage Bin Fill Conveyor #3	Grain	60,000 bushels/hr
	EU-20h	Corn Storage Bin #1	Grain	500,000 bushels
	EU-20i	Corn Storage Bin #2	Grain	500,000 bushels
	EU-20p	Corn Storage Bin #3	Grain	1,000,000 bushels
	EU-20j	Dirty Corn Day Bin	Grain	35,000 bushels
	EU-20k	Clean Corn Day Bin	Grain	9,000 bushels
	EU-20m	Reclaim Conveyor #2	Grain	10,000 bushels/hr
	EU-20n	Reclaim Conveyor #3	Grain	10,000 bushels/hr
	EU-20q	Reclaim Conveyor #4	Grain	10,000 bushels/hr
	EU-20r	Reclaim Leg	Grain	10,000 bushels/hr
EU-20s	Cross Conveyor	Grain	10,000 bushels/hr	

\* System capacity is 30,000 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.*

PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 07-A-964-P5

<sup>(1)</sup>Standard is expressed as a six-minute average.

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

Emission Limit(s): 0.004 gr/scf <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-964-P5

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.004 gr/scf <sup>(2)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-964-P5

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

Other Limits:

Pollutant: Opacity  
Emission Limit(s): 0% <sup>(1) (2)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-964-P5  
567 IAC 23.1(2)"ooo"

- <sup>(1)</sup> The emission limit is based on a six (6) minute average.
- <sup>(2)</sup> 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 (PM<sub>2.5</sub>)  
Emission Limit(s): 1.34 lb/hr <sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-964-P5

Pollutant: Particulate Matter (PM<sub>10</sub>)  
Emission Limit(s): 1.34 lb/hr <sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-964-P5

Pollutant: Particulate Matter (PM) – State  
Emission Limit(s): 1.34 lb/hr <sup>(3)</sup>; 0.1 gr/dscf  
Authority for Requirement: DNR Construction Permit 07-A-964-P5  
567 IAC 23.4(7)

Pollutant: Particulate Matter (PM) – Federal  
Emission Limit(s): 0.01 gr/dscf  
Authority for Requirement: DNR Construction Permit 07-A-964-P5  
567 IAC 23.1(2)"ooo"

<sup>(3)</sup> Standard is expressed as the average of three (3) runs.

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The owner or operator shall not receive more than 67,857,143 bushels (1,900,000 tons) of grain (shelled corn) per rolling 12-month period at the facility via either truck or rail combined.
  - a. Record each month the amount of grain received at the facility via truck and rail. Calculate and record 12-month rolling totals.

- B. Corn Storage Bin #1, Corn Storage Bin #2 and Corn Storage Bin #3 shall be filled while under negative pressure control. The three bins may have bin vents to allow the bins to breathe due to changes in atmospheric conditions.
- C. Exhaust from Corn Storage Bin #1, Corn Storage Bin #2 and Corn Storage Bin #3 shall be vented to the baghouse for a minimum of 30 minutes following the completion of grain being conveyed into the bins during the unloading of either trucks or railcars.
- D. Only two of the three corn unloading pits (Corn Unloading Pit #1 for Trucks, Corn Unloading Pit #2 for Trucks and Corn Unloading Pit #3 for Railcars) may operate at any one time.
- E. No visible emissions shall be observed outside of any building or enclosure from the operation of grain handling equipment.
  - a. If visible emissions are observed at any time outside of any building or enclosure that houses grain handling equipment, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- F. The receiving of grain (shelled corn) shall be conducted within an enclosure. All grain unloading shall use choke flow and enclosed dump pits to minimize fugitive dust emissions
- G. Grain unloading from straight trucks shall be conducted while the doors on both the entrance and exit of the unloading lane being used are closed.
- H. The baghouse, C20, differential pressure drop shall be maintained between 0.2 and 5 inches water column.
  - a. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - b. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. This requirement shall not apply on the days that the baghouse is not in operation. If visible emissions are observed at any time from the baghouse or baghouse exhaust, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- I. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and the monitoring devices.
- J. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.
- K. Any deviations from the control equipment operating parameters detailed above shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:
  - a. The identity of the equipment or source operation from which the deviation is being reported;

- b. The time and duration of the deviation;
- c. The cause of the deviation;
- d. The steps taken to remedy the deviation; and
- e. Whether the deviation resulted in excess emission.

Authority for Requirement: DNR Construction Permit 07-A-964-P5

### **NSPS and NESHAP Applicability**

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

Authority for Requirement: DNR Construction Permit 07-A-964-P5  
40 CFR Part 60 Subpart DD  
567 IAC 23.1(2)"ooo"

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 160  
Stack Opening, (inches, dia.): 48  
Exhaust Flow Rate (scfm): 15,200  
Exhaust Temperature (°F): Ambient  
Discharge Style: Vertical Unobstructed  
Authority for Requirement: DNR Construction Permit 07-A-964-P5

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.*

### **Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on this emission point are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is

observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

**Stack Testing:**

Pollutant – Opacity

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup>

Test Method - 40 CFR 60 Appendix A Method 9

Authority for Requirement – DNR Construction Permit 07-A-964-P5

Pollutant – Particulate Matter (PM) – Federal

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup>

Test Method - 40 CFR 60 Appendix A Method 5

Authority for Requirement – DNR Construction Permit 07-A-964-P5

Pollutant – Particulate Matter (PM) – State

1st Stack Test to be Completed by (date) – Initial <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 07-A-964-P5

<sup>(1)</sup> Test required by compliance plan dated May 4, 2018. Test shall be completed by November 15, 2018. Test was conducted on October 30 and 31, 2018.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: EP-S21**

Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Number: CE-C21

Emissions Control Equipment Description: Baghouse

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-S21	EU-21A	Storage Bin Fill Conveyor #4	Corn	60,000 bushels/hr
	EU-21B	Corn Storage Bin #4	Corn	1,174,333 bushels
	EU-21C	Reclaim Conveyor #5	Corn	10,000 bushels/hr
	EU-21D	Storage Bin Fill Conveyor #5	Corn	60,000 bushels/hr
	EU-21E	Corn Storage Bin #5	Corn	1,161,947 bushels
	EU-21F	Reclaim Conveyor #6	Corn	10,000 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.*

NSPS Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup> <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 16-A-245-S3  
567 IAC 23.1(2)"ooo"

- <sup>(1)</sup> The emission limit is based on a six (6) minute average.
- <sup>(2)</sup> The indicator opacity of “no visible emissions” is based on an average flowrate of 15,500 standard cubic feet per minute. An exceedance of the indicator opacity 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) – Federal

Emission Limit(s): 0.53 lb/hr <sup>(3)</sup>; 0.01 gr/dscf <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 16-A-245-S3  
567 IAC 23.1(2)"ooo"

Other Limits:

Pollutant: Particulate Matter (PM) – State

Emission Limit(s): 0.53 lb/hr <sup>(3)</sup>; 0.1 gr/dscf <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 16-A-245-S3  
567 IAC 23.4(7)

- <sup>(3)</sup> The emission limit is expressed as the average of three (3) runs.

### **Operational Limits & Requirements and Associated Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

### **Grain Bins 4 and 5 Operation Requirements**

- A. Corn Storage Bin #4 (EU-21B) and Corn Storage Bin #5 (EU-21E) shall be filled while under negative pressure control.
- B. The owner or operator shall vent Corn Storage Bin #4 (EU-21B) and Corn Storage Bin #5 (EU-21E) to the Baghouse (CE-C21) for a minimum of thirty (30) minutes following the completion of grain being conveyed into each bin.

### **Control Equipment Requirements**

- C. The owner or operator shall maintain the pressure drop across the Baghouse (CE-C21) between 0.05 and 5.0 inches water column.
  - a. Once per day, while the Baghouse (CE-C21) is in operation, the owner or operator shall collect and record the pressure drop, in inches of water column, across the Baghouse (CE-C21).
- D. The owner or operator shall inspect and maintain the Baghouse (CE-C21) according to the manufacturer's specifications.
  - a. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include:
    - i. The date that any inspection and/or maintenance was performed on the control equipment;
    - ii. Any issues identified during the inspection;
    - iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and
    - iv. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 16-A-245-S3

## **NSPS and NESHAP Applicability**

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

Authority for Requirement: DNR Construction Permit 16-A-245-S3  
40 CFR Part 60 Subpart DD  
567 IAC 23.1(2)"ooo"

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 37

Stack Opening, (inches, dia.): 30

Exhaust Flow Rate (scfm): 11,625 – 19,375

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 16-A-245-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.*

#### **Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on this emission point are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: EP-S22

### Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Number: CE-C22

Emissions Control Equipment Description: Baghouse

EP	EU	Emission Unit Description	Raw Material	Rated Capacity (bushels/hr)
EP-S22	EU-22a	Receiving Pit #4	Corn	20,000
	EU-22b	Receiving Pit Conveyor	Corn	20,000
	EU-22c	Receiving Transfer Conveyor	Corn	20,000
	EU-22d	Receiving Leg	Corn	20,000

### 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.*

#### NSPS Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup> <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 18-A-221  
567 IAC 23.1(2)"ooo"

- <sup>(1)</sup> The emission limit is based on a six (6) minute average.
- <sup>(2)</sup> The indicator opacity of "no visible emissions" is based on an average flowrate of 15,500 standard cubic feet per minute. An exceedance of the indicator opacity 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) – Federal

Emission Limit(s): 0.01 gr/dscf

Authority for Requirement: DNR Construction Permit 18-A-221  
567 IAC 23.1(2)"ooo"

#### Other Limits:

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

Emission Limit(s): 1.54 lb/hr

Authority for Requirement: DNR Construction Permit 18-A-221

Pollutant: Particulate Matter (PM) – State  
Emission Limit(s): 3.29 lb/hr; 0.1 gr/dscf  
Authority for Requirement: DNR Construction Permit 18-A-221  
567 IAC 23.4(7)

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The owner or operator shall not receive more than 67,857,143 bushels (1,900,000 tons) of grain (shelled corn) per rolling 12-month period at the facility via either truck or rail combined.
  - a. Record each month the amount of grain received at the facility via truck and rail. Calculate and record 12-month rolling totals.
- B. No visible emissions shall be observed outside of any building or enclosure from the operation of grain handling equipment.
  - a. If visible emissions are observed at any time outside of any building or enclosure that houses grain handling equipment, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- C. The receiving of grain (shelled corn) shall be conducted within an enclosure. All grain unloading shall use choke flow and enclosed dump pits to minimize fugitive dust emissions
- D. Grain unloading from straight trucks shall be conducted while the doors on both the entrance and exit of the unloading lane being used are closed.
- E. Grain receiving shall be limited to the hours of 6:00 am to 6:00 pm.
- F. Maintain a record of grain receiving times.
- G. The baghouse, C22, differential pressure drop shall be maintained between 0.05 and 5 inches water column.
  - a. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - b. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. This requirement shall not apply on the days that the baghouse is not in operation. If visible emissions are observed at any time from the baghouse or baghouse exhaust, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- H. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

- a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and the monitoring devices.
- I. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan. Any deviations from the control equipment operating parameters detailed above shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:
- a. The identity of the equipment or source operation from which the deviation is being reported;
  - b. The time and duration of the deviation;
  - c. The cause of the deviation;
  - d. The steps taken to remedy the deviation; and
  - e. Whether the deviation resulted in excess emission.

Authority for Requirement: DNR Construction Permit 18-A-221

### **NSPS and NESHAP Applicability**

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

Authority for Requirement: DNR Construction Permit 18-A-221  
40 CFR Part 60 Subpart DD  
567 IAC 23.1(2)"ooo"

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 160

Stack Opening, (inches, dia.): 40

Exhaust Flow Rate (scfm): 30,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 18-A-221

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.*

### **Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on this emission point are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

### **Stack Testing:**

Pollutant – Opacity

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup> <sup>(2)</sup>

Test Method - 40 CFR 60 Appendix A Method 9

Authority for Requirement – DNR Construction Permit 18-A-221

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

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup> <sup>(2)</sup>

Test Method - 40 CFR 51 Appendix M 201A with 202

Authority for Requirement – DNR Construction Permit 18-A-221

Pollutant – Particulate Matter (PM) – State

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup> <sup>(2)</sup>

Test Method - 40 CFR 60 Appendix A Method 5

40 CFR 51 Appendix M Method 202

Authority for Requirement – DNR Construction Permit 18-A-221

Pollutant – Particulate Matter (PM) – Federal

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup> <sup>(2)</sup>

Test Method - 40 CFR 60 Appendix A Method A

Authority for Requirement – DNR Construction Permit 18-A-221

- (1) 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.
- (2) Within ninety (90) days of the issuance of DNR Construction Permit 18-A-221 if there is no physical modification to any emission units or control equipment. Test was conducted on October 30 and 31, 2018.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: EP-S30

### Associated Equipment

Associated Emission Unit ID Numbers: see the table below

Emissions Control Equipment ID Number: CE-C30

Emissions Control Equipment Description: Baghouse

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EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-S30	EU-30a	Hammermill #1	Corn	2,100 bushel/hr
	EU-30b	Hammermill #2	Corn	2,100 bushel/hr
	EU-30c	Hammermill #3	Corn	2,100 bushel/hr
	EU-30d	Hammermill #4	Corn	2,100 bushel/hr
	EU-30e	Product Recovery Cyclone	Corn	8,400 bushel/hr
	EU-20k	Clean Corn Day Bin	Corn	9,000 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.*

#### PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 07-A-966-P2

<sup>(1)</sup>Standard is expressed as a six-minute average.

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

Emission Limit(s): 0.004 gr/scf <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-966-P2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.004 gr/scf <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-966-P2

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

#### Other Limits:

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: DNR Construction Permit 07-A-966-P2  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>)  
Emission Limit(s): 0.96 lb/hr <sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-966-P2

<sup>(3)</sup>Standard is expressed as the average of three (3) runs.

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: DNR Construction Permit 07-A-966-P2  
567 IAC 23.4(7)

### **Operational Limits & Requirements**

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

#### **Operating Limits**

- A. The baghouse, CE-30, differential pressure drop shall be maintained between 0.2 and 5 inches water column.
- B. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- C. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.

#### **Reporting and Recordkeeping**

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

- A. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- B. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. This requirement shall not apply on the days that the baghouse is not in operation. If visible emissions are observed at any time from the baghouse or baghouse exhaust, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- C. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and the monitoring devices.
- D. Any deviations from the control equipment operating parameters detailed in the Operating Limits section of this permit shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:

- a. The identity of the equipment or source operation from which the deviation is being reported;
- b. The time and duration of the deviation;
- c. The cause of the deviation;
- d. The steps taken to remedy the deviation; and
- e. Whether the deviation resulted in excess emission.

Authority for Requirement: DNR Construction Permit 07-A-966-P2

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 160

Stack Opening, (inches, dia.): 38

Exhaust Flow Rate (scfm): 18,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-966-P2

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.*

#### **Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on this emission point are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Numbers: EP-S35, EP-S36, EP-S37, and EP-S38

### Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Numbers: CE-C35, CE-C36, CE-C37, CE-C38

Emissions Control Equipment Description: Baghouses

EP	EU	Emission Unit Description	Raw Material	Rated Capacity (bushels/hr)
EP-S35	EU-35	Hammermill #5	Corn	1,500
	EU-34	Surge Bin (500 bushels)		
EP-S36	EU-36	Hammermill #6	Corn	1,500
	EU-34	Surge Bin (500 bushels)		
EP-S37	EU-37	Hammermill #7	Corn	1,500
	EU-34	Surge Bin (500 bushels)		
EP-S38	EU-38	Hammermill #8	Corn	1,500
	EU-34	Surge Bin (500 bushels)		

### 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)(2)</sup>

Authority for Requirement: DNR Construction Permits 14-A-149-S2, 14-A-150-S2, 17-A-119-S1, 17-A-120-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup> The emission limit is a six (6) minute average.

<sup>(2)</sup> 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 (PM<sub>2.5</sub>)

Emission Limit(s): 0.22 lbs/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 14-A-149-S2, 14-A-150-S2, 17-A-119-S1, 17-A-120-S2

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

Emission Limit(s): 0.22 lbs/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 14-A-149-S2, 14-A-150-S2, 17-A-119-S1, 17-A-120-S2

Pollutant: Particulate Matter (PM) – State

Emission Limit(s): 0.22 lbs/hr <sup>(3)</sup>; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 14-A-149-S2, 14-A-150-S2,  
17-A-119-S1, 17-A-120-S2  
567 IAC 23.4(7)

<sup>(3)</sup> The emission limit is expressed as the average of three (3) runs

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The baghouses, C35, C36, C37, and C38 differential pressure drop shall be maintained between 0.05 and 5 inches water column. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - a. The owner or operator shall collect and record the pressure drop across the baghouses, in inches of water, once per calendar day. This requirement shall not apply on the days that the baghouses are not in operation. If visible emissions are observed at any time from the baghouses or baghouse exhausts, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- B. The owner or operator shall inspect and maintain the control equipment according to the manufacturer’s specifications or written operation and maintenance plan.
  - a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.
  - b. Any deviations from the control equipment operating parameters detailed above shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:
    - i. The identity of the equipment or source operation from which the deviation is being reported;
    - ii. The time and duration of the deviation;
    - iii. The cause of the deviation;
    - iv. The steps taken to remedy the deviation; and
    - v. Whether the deviation resulted in excess emission

Authority for Requirement: DNR Construction Permits 14-A-149-S2, 14-A-150-S2,  
17-A-119-S1, 17-A-120-S2

**Emission Point Characteristics**

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

Emission Points S35, S36, S37:

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 18

Exhaust Flow Rate (scfm): 6,500

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 14-A-149-S2, 14-A-150-S2,  
17-A-119-S1

Emission Point S38:

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 18

Exhaust Flow Rate (scfm): 8,720

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 17-A-120-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that 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: EP-S40 and EP-S41

### Associated Equipment

Associated Emission Unit ID Numbers: See table below

Emissions Control Equipment ID Number: CE-C40, CE-C41

Emissions Control Equipment Description: Packed Bed CO<sub>2</sub> Scrubbers

EP	EU	Emission Unit Description	Raw Material	Capacity (gallons)	Maximum Rated Capacity
EP-S40 EP-S41	EU-40a	Fermenter #1	Beer	807,000	2,500 gallons of fermenter fill rate per minute (each emission point)
	EU-40b	Fermenter #2		807,000	
	EU-40c	Fermenter #3		807,000	
	EU-40d	Fermenter #4		807,000	
	EU-40e	Fermenter #5		807,000	
	EU-40f	Fermenter #6		807,000	
	EU-40g	Fermenter #7		807,000	
	EU-40i	Fermenter #8		807,000	
	EU-40k	Fermenter #9		807,000	
	EU-40l	Fermenter #10		807,000	
	EU-40lm	Fermenter #11		807,000	
	EU-40n	Fermenter #12		807,000	
	EU-40j	Degas Tank		4,900	
	EU-40h	Beer Well		1,080,000	
	EU-41a <sup>(*)</sup>	Yeast Propagation Tank #1		30,000	
EU-41b <sup>(*)</sup>	Yeast Propagation Tank #2	30,000			
EU-41c <sup>(*)</sup>	Yeast Propagation Tank #3	30,000			

<sup>(\*)</sup> These three tanks are currently under construction and the expected completion date is January 31, 2019.

### 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.*

#### PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

<sup>(1)</sup>Standard is expressed as a six-minute average.

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

Emission Limit(s): 0.003 gr/scf <sup>(2)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.003 gr/scf <sup>(2)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 97% Reduction <sup>(3)</sup> or 100 ppmv <sup>(4)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

<sup>(3)</sup> The percent reduction limit applies across the Packed Bed CO<sub>2</sub> Scrubbers, C40 and C41.

<sup>(4)</sup> The concentration limit is the limit from the exhaust of the Packed Bed CO<sub>2</sub> Scrubbers, C40 and C41.

PSD Limits for Combined Emission Points S40 and S41:

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

Emission Limit(s): 1.21 tons/yr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.21 tons/yr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

<sup>(1)</sup> The emission limit is based on a twelve (12) month rolling total.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 68.50 tons/yr

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

NESHAP Limits for Group 1 Continuous Vents S40 and S41, combined:

Pollutant: Total Organic HAP

Emission Limit(s): Table 1 to Part 63 Subpart FFFF

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

40 CFR Part 63 Subpart FFFF

567 IAC 23.1(4)"cf"

Other Limits for Individual Emission Points S40 and S41:

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

Emission Limit(s): 0.15 lb/hr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

<sup>(1)</sup>Standard is expressed as the average of three (3) runs.

### **Operating Requirements with Associated Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

### **NESHAP REQUIREMENTS**

- A. The owner or operator shall comply with the applicable requirements in 40 CFR Part 63, Subparts A [§63.1 - §63.15] and FFFF [§63.2430 - §63.2550], including those not specifically mentioned in this permit.
- B. As required by 40 CFR §63.6(e), the owner or operator shall develop and implement a written startup, shutdown, and malfunction (SSM) plan, unless otherwise excluded within the applicable standards.
- C. Per 40 CFR §63.2450(a) and as indicated in §63.2455, the owner or operator of equipment associated with continuous process vents as defined in §63.2550 shall comply with the applicable emission limits and work practice standards in Table 1 to Subpart FFFF of Part 63 at all times, except during periods of SSM.
- D. As required by 40 CFR §63.2450(e)(1), the owner or operator reducing organic HAP emissions through a closed-vent system to any combination of control devices (except a flare) shall comply with the applicable requirements in §63.982(c) and the requirements referenced therein.
- E. The owner or operator shall comply with the applicable notification, reporting, and recordkeeping requirements in 40 CFR §63.2515, §63.2520, and §63.2525, respectively.

### **CONTROL EQUIPMENT REQUIREMENTS**

- F. The owner or operator shall operate the control equipment (Packed Bed CO<sub>2</sub> Scrubber C40 and Packed Bed CO<sub>2</sub> Scrubber C41) at all times any of the equipment described in DNR Construction Permits 07-A-970-P8 and 18-A-139-P is in operation.
  - i. The owner or operator shall operate the control equipment until the fermentation cycles have been completed during plant shutdown.
- G. The owner or operator shall maintain an average differential pressure drop across each scrubber between 5 and 29 inches of water column, based on a 3-hour block averaging period. This requirement shall not apply on the days that the equipment at these emission points and associated scrubbers are not in operation.
  - i. The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the pressure drop (in inches of water column) across each scrubber. This equipment shall be installed, operated, and maintained in accordance with the facility's operation and maintenance plan.
  - ii. The owner or operator shall collect and record the pressure drop (in inches of water column) across each scrubber at a minimum of once every 15 minutes and calculate and record the 3-hour block average differential pressure drop for each scrubber. The 3-hour block average differential pressure drop for each scrubber shall be calculated using all data points collected during the averaging period.
  - iii. If any of the differential pressure drop (in inches of water column) 3-hour block

- averages across any of the scrubbers falls outside the required range, the owner or operator shall record the time, date, and actions taken to correct the situation and shall record when the average differential pressure drop is back within the required range.
- H. The owner or operator shall maintain a 3-hour block average water feed rate (in gallons per minute) into each scrubber at or above the average rate observed during the most recent compliance test that demonstrated compliance with all applicable emission limitations.
- i. The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the water feed rate (in gallons per minute) into each scrubber. This equipment shall be installed, operated, and maintained in accordance with the facility's operation and maintenance plan.
  - ii. The owner or operator shall collect and record the water feed rate (in gallons per minute) into each scrubber at a minimum of once every 15 minutes and calculate and record the 3-hour block average water feed rate into each scrubber. The 3-hour block average water feed rate into each scrubber shall be calculated using all data points collected during the averaging period.
  - iii. If any of the water feed rate (in gallons per minute) 3-hour block averages into any of the scrubbers falls below the minimum required value, the owner or operator shall record the time, date, and actions taken to correct the situation and shall record when the average water feed rate is back at or above the minimum required value.
  - iv. Use of a lower water feed rate requires the owner or operator to first obtain a variance to test the lower water feed rate. The owner or operator shall submit the test results to the Department for review and approval. Once approved, the owner or operator shall be allowed to use the lower water feed rate.
- I. The owner or operator shall maintain a 3-hour block average additive feed rate (in milliliters per minute) into each scrubber at or above the average rate observed during the most recent compliance test that demonstrated compliance with all applicable emission limitations.
- i. The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the additive feed rate (in milliliters per minute) into each scrubber. This equipment shall be installed, operated, and maintained in accordance with the facility's operation and maintenance plan.
  - ii. The owner or operator shall collect and record the additive feed rate (in milliliters per minute) into each scrubber at a minimum of once every 15 minutes and calculate and record the 3-hour block average additive feed rate into each scrubber. The 3-hour block average additive feed rate into each scrubber shall be calculated using all data points collected during the averaging period.
  - iii. If any of the additive feed rate (in milliliters per minute) 3-hour block averages into any of the scrubbers falls below the minimum required value, the owner or operator shall record the time, date, and actions taken to correct the situation and shall record when the average additive feed rate is back at or above the minimum required value.
  - iv. Use of a different additive and/or use of a lower additive feed rate requires the owner or operator to first obtain a variance to test the new additive and/or the lower additive feed rate. The owner or operator shall submit the test results to the Department for review and approval. Once approved, the owner or operator shall be allowed to use the new additive and/or the lower additive feed rate.
- J. The owner or operator shall maintain on-site a copy of the most recent compliance test that demonstrated compliance with all applicable emission limitations. At a minimum, this report

shall include:

- i. The emission rates (in pounds per hour) observed during the testing;
  - ii. The average differential pressure drop (in inches of water column) across each scrubber observed during the testing;
  - iii. The average water feed rate (in gallons per minute) into each scrubber during the testing;
  - iv. The type of additive used during the testing;
  - v. The average additive feed rate (in milliliters per minute) into each scrubber during the testing; and
  - vi. The average fermenter fill rate (in gallons per minute) observed during the testing.
- K. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications and/or the facility's (Plant No. 19-04-002) operation and maintenance plan.
- i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include the following:
    1. The date that any inspection and/or maintenance was performed on the control equipment;
    2. Any issues identified during inspection;
    3. Any issues addressed during the maintenance activities and the date each issue was resolved; and
    4. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P

### **NSPS and NESHAP Applicability**

This facility is subject to the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63 Subpart FFFF], and these emission units are affected sources. These emission points are Group 1 Batch Process Vents. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

Authority for Requirement: DNR Construction Permits 07-A-970-P8, 18-A-139-P  
40 CFR Part 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

### **Emission Point Characteristics**

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

Emission Point S40:

Stack Height, (ft, from the ground): 75  
Stack Opening, (inches, dia.): 15  
Exhaust Flow Rate (scfm): 11,712  
Exhaust Temperature (°F): 68  
Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-970-P8

Emission Point S41:

Stack Height, (ft, from the ground): 81.2

Stack Opening, (inches, dia.): 30

Exhaust Flow Rate (scfm): 11,712

Exhaust Temperature (°F): 68

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 18-A-139-P

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.*

### **Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on these emission points are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

## Stack Testing:

Pollutant – Opacity

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup>

Test Method - 40 CFR 60 Appendix A Method 9

Authority for Requirement – DNR Construction Permits 07-A-970-P8, 18-A-139-P

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

1st Stack Test to be Completed by (date) – Initial <sup>(1)(2)</sup>

Test Method - 40 CFR 51 Appendix M 201A with 202

Authority for Requirement – DNR Construction Permits 07-A-970-P8, 18-A-139-P

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

1st Stack Test to be Completed by (date) – Initial <sup>(1)(3)</sup>

Test Method - 40 CFR 51 Appendix M 201A with 202

Authority for Requirement – DNR Construction Permits 07-A-970-P8, 18-A-139-P

Pollutant – Particulate Matter (PM) – State

1st Stack Test to be Completed by (date) – Initial <sup>(1)</sup>

Test Method - 40 CFR 60 Appendix A Method 5

40 CFR 51 Appendix M Method 202

Authority for Requirement – DNR Construction Permits 07-A-970-P8, 18-A-139-P

Pollutant – Volatile Organic Compounds (VOC)

1st Stack Test to be Completed by (date) – Annually <sup>(1)(4)(5)(6)</sup>

Test Method - 40 CFR 63 Appendix A Method 25A or

40 CFR 63 Appendix A Method 320 or

40 CFR 60 Appendix A Method 18

Authority for Requirement – DNR Construction Permits 07-A-970-P8, 18-A-139-P

Pollutant – Total Organic HAP

1st Stack Test to be Completed by (date) – Initial and on the schedule required by

40 CFR Part 63, Subpart FFFF

(§63.2430 - §63.2550). <sup>(7)(8)</sup>

Test Method - 40 CFR 63 Appendix A Method 320 or

40 CFR 60 Appendix A Method 18

Authority for Requirement – DNR Construction Permits 07-A-970-P8, 18-A-139-P

- <sup>(1)</sup> Initial testing for PM, PM<sub>10</sub>, opacity, and VOC on Emission Points S40 and S41 to demonstrate compliance with the PSD emission limits shall be completed once within 60 days after achieving the maximum production rate while all the equipment is in operation, but no later than 180 days after the initial startup date of the proposed equipment.
- <sup>(2)</sup> Initial testing for PM<sub>2.5</sub> on Emission Points S40 and S41 to demonstrate compliance with the Other emission limits above shall be completed once within 60 days after achieving the maximum production rate while all the equipment is in operation, but no later than 180 days after the initial startup date of the proposed equipment.
- <sup>(3)</sup> Stack testing may be conducted for total particulate matter to demonstrate compliance with the PSD PM<sub>10</sub> emission limit.

- (4) Any VOC testing on Emission Points S40 and S41 shall be conducted simultaneously.
- (5) VOC periodic testing on Emission Points S40 and S41 to demonstrate compliance with the PSD emission limit shall be completed annually during the months of June, July, or August.
- (6) If 97 percent reduction from the PSD emission limit is chosen, then the VOC inlet and outlet emission rates shall be measured simultaneously for Emission Points S40 and S41 at each required test.
- (7) Any Total Organic HAP testing on Emission Points S40 and S41 shall be conducted simultaneously.
- (8) Total Organic HAP testing shall be completed on the schedule required by 40 CFR Part 63, Subpart FFFF (§63.2430 - §63.2550). If 98 percent reduction from Table 1 of Subpart FFFF is chosen, then the Total Organic HAP inlet and outlet emission rates shall be measured simultaneously for Emission Points S40 and S41 at each required test.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: EP-S75**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-75  
Emissions Control Equipment ID Number: CE-C75  
Emissions Control Equipment Description: Baghouse

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Emission Unit vented through this Emission Point: EU-75  
Emission Unit Description: DDGS Cooling Tube  
Raw Material/Fuel: DDGS  
Rated Capacity: 20 tons/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup> <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 17-A-122-S1  
567 IAC 23.3(2)"d"

<sup>(1)</sup> The emission limit is based on a six (6) minute average.

<sup>(2)</sup> 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 (PM<sub>2.5</sub>)

Emission Limit(s): 3.0 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-122-S1  
567 IAC 23.3(2)"a"

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

Emission Limit(s): 3.0 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-122-S1  
567 IAC 23.3(2)"a"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 3.0 lb/hr <sup>(3)</sup>; 0.1gr/dscf

Authority for Requirement: DNR Construction Permit 17-A-122-S1  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 6.58 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-122-S1

Pollutant: Single HAP  
Emission Limit(s): 0.30 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-122-S1

Pollutant: Total HAP  
Emission Limit(s): 0.60 lb/hr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 17-A-122-S1

<sup>(3)</sup> The emission limit is expressed as the average of three (3) runs.

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The baghouse, C75, differential pressure drop shall be maintained between 0.05 and 5 inches water column. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - a. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. This requirement shall not apply on the days that the baghouse is not in operation. If visible emissions are observed at any time from the baghouse or baghouse exhaust, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- B. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.
  - a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.
  - b. Any deviations from the control equipment operating parameters detailed above shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:
    - i. The identity of the equipment or source operation from which the deviation is being reported;
    - ii. The time and duration of the deviation;
    - iii. The cause of the deviation;
    - iv. The steps taken to remedy the deviation; and
    - v. Whether the deviation resulted in excess emission

Authority for Requirement: DNR Construction Permit 17-A-122-S1

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 124.67

Stack Opening, (inches, dia.): 40

Exhaust Flow Rate (scfm): 27,175

Exhaust Temperature (°F): 90

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 17-A-122-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: EP-S90**

### Associated Equipment

Associated Emission Unit ID Number: EU-90  
Emissions Control Equipment ID Number: CE-C90  
Emissions Control Equipment Description: Baghouse

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Emission Unit vented through this Emission Point: EU-90  
Emission Unit Description: DDGS Loadout  
Raw Material/Fuel: DDGS  
Rated Capacity: 150 tons/hr by truck or 200 tons/hr by railcar

### **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.*

#### PSD BACT Limits:

Pollutant: Opacity  
Emission Limit(s): 0% <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-980-P3

<sup>(1)</sup>Standard is expressed as a six-minute average.

Pollutant: Particulate Matter (PM<sub>10</sub>)  
Emission Limit(s): 0.004 gr/scf <sup>(2)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-980-P3

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.004 gr/scf <sup>(2)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-980-P3

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.004 lbs/ton <sup>(3)</sup>; 1.11 tons/yr <sup>(4)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-980-P3

<sup>(3)</sup>Pound per ton standard applies to the outlet of each individual DDGS Loadout and is expressed as VOC as the sum of EPA Method 320.

<sup>(4)</sup>Tons per year standard is expressed as a 12-month rolling total.

Other Limits:

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup> <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-980-P3  
567 IAC 23.3(2)"d"

- <sup>(1)</sup> The emission limit is based on a six (6) minute average.
- <sup>(2)</sup> 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 (PM<sub>10</sub>)

Emission Limit(s): 0.38 lb/hr <sup>(3)</sup> <sup>(4)</sup>

Authority for Requirement: DNR Construction Permit 07-A-980-P3

Pollutant: Particulate Matter (PM) - State

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-980-P3  
567 IAC 23.4(7)

Pollutant: Single HAP

Emission Limit(s): 0.3 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-980-P3

Pollutant: Total HAP

Emission Limit(s): 0.4 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-980-P3

<sup>(3)</sup> Standard is expressed as the average of three (3) runs.

<sup>(4)</sup> Standard is a 12-month rolling total.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The owner or operator shall not loadout more than 552,500 tons of DDGS per rolling 12-month period at the facility via either truck or rail combined.
  - a. Record each month the amount of DDGS loaded out at the facility via truck and rail. Calculated and record 12-month rolling totals.
- B. Calculate and record VOC emissions from the loadout in tons on a monthly basis and record the 12-month rolling total.
- C. The baghouse, C90, differential pressure drop shall be maintained between 0.2 and 5 inches water column.
  - a. The owner or operator shall properly operate and maintain equipment to continuously

- monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- b. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. This requirement shall not apply on the days that the baghouse is not in operation. If visible emissions are observed at any time from the baghouse or baghouse exhaust, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.
- D. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and the monitoring devices.
- E. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.
- a. Any deviations from the control equipment operating parameters detailed in Section 14 of this permit shall be reported to the department each calendar quarter within 30 days of the end of the reporting period. The report shall include:
    - i. The identity of the equipment or source operation from which the deviation is being reported;
    - ii. The time and duration of the deviation;
    - iii. The cause of the deviation;
    - iv. The steps taken to remedy the deviation; and
    - v. Whether the deviation resulted in excess emission.
- F. All DDGS loadout shall be conducted within an enclosure and shall be done using a loading spout and operating procedures that minimize particulate emissions.

Authority for Requirement: DNR Construction Permit 07-A-980-P3

### **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 (scfm): 6,350

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-980-P3

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.*

**Opacity Monitoring**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission unit on this emission point is at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (> 0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Authority for Requirement: 567 IAC 22.108(14)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P110

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Emission Unit vented through this Emission Point: EP-P110  
Emission Unit Description: Emergency Diesel Fire Water Pump  
Raw Material/Fuel: Diesel  
Rated Capacity: 300 bhp

### **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.*

#### PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0%

Authority for Requirement: DNR Construction Permit 07-A-982-P1

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

Emission Limit(s): 0.099 lb/hr <sup>(1)</sup>; 0.20 g/kW-hr

Authority for Requirement: DNR Construction Permit 07-A-982-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.099 lb/hr <sup>(1)</sup>; 0.20 g/kW-hr

Authority for Requirement: DNR Construction Permit 07-A-982-P1

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

Emission Limit(s): 0.1 lb/hr <sup>(1)</sup>; 0.203 g/kW-hr

Authority for Requirement: DNR Construction Permit 07-A-982-P1

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

Emission Limit(s): 1.58 lb/hr <sup>(1)</sup>; 3.2 g/kW-hr

Authority for Requirement: DNR Construction Permit 07-A-982-P1

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.395 lb/hr <sup>(1)</sup>; 0.8 g/kW-hr

Authority for Requirement: DNR Construction Permit 07-A-982-P1

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 1.61 lb/hr <sup>(1)</sup>; 3.26 g/kW-hr

Authority for Requirement: DNR Construction Permit 07-A-982-P1

<sup>(1)</sup>Standard is expressed as the average of three (3) runs.

### NSPS Limits:

See the NSPS and NESHAP Applicability section below.

### Other Limits:

Pollutant: Opacity

Emission Limit(s): 40% <sup>(2)</sup> <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-982-P1  
567 IAC 23.3(2)"d"

<sup>(2)</sup> An exceedance of the indicator opacity of 20% 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).

<sup>(3)</sup> The emission limit is based on a six (6) minute average

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

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

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

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner*

- A. This engine is limited to operating a maximum of 300 hours in any rolling 12-month period.
- B. i. This engine is limited to operate as an emergency stationary internal combustion engine as defined in §60.4219 and in accordance with §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 A. above is not exceeded. In accordance with §60.4211(f)(2), the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.
  - ii. In accordance with §60.4211(f)(3), the engine is also allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used for peak shaving or non-emergency demand response or to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity.
- C. In accordance with §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:
  - i. the number of hours that the engine operated for maintenance checks and readiness

- testing;
  - ii. the number of hours that the engine operated for allowed non-emergency operations;
  - iii. the total number of hours that the engine operated and
  - iv. 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:
- i. the number of hours that the engine operated for maintenance checks and readiness testing; and
  - ii. the number of hours that the engine operated for allowed non-emergency operations.
  - iii. the total number of hours that the engine operated for maintenance checks, readiness testing, and allowed non-emergency operations.
- F. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel:

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

- The owner or operator of the engine shall comply with these requirements listed above by one of the following methods:
- i. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);
  - ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
  - iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.
- G. The engine must be installed and configured according to the manufacturer’s emission-related specifications, except as permitted in §60.4211(g).
- H. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer’s emission-related written instructions. The owner or operator may only change emission-related engine settings that are permitted by the manufacturer.

Authority for Requirement: DNR Construction Permit 07-A-982-P1

**NSPS and NESHAP Applicability**

- A. New Source Performance Standards (NSPS): This emission unit is subject to subpart IIII - Stationary Compression Ignition Internal Combustion Engines [§60.4200 – §60.4219], and subpart A – General Provisions [§60.1 – §60.19].
- i. In accordance with §60.4211(c), the engine must be certified by its manufacturer to comply with the emissions standards for emergency engines from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are:

<b>Pollutant</b>	<b>Emission Standard</b>	<b>Basis (40 CFR)</b>
Particulate Matter (PM)	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC <sup>1</sup> + NO <sub>x</sub>	4.0 kW grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§ 89.112 Table 1
Opacity – acceleration mode	20%	§ 89.113 (a)(1)
Opacity – lugging mode	15%	§ 89.113 (a)(2)
Opacity – peaks in acceleration or lugging modes	50%	§ 89.113 (a)(3)

<sup>1</sup> Non-methane hydrocarbon

- ii. In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required. However, if the engine is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, a compliance demonstration is required in accordance with §60.4211(g).

NOTE: The absence of the inclusion of any NSPS requirements as part of this permit does not relieve the owner or operator from any obligation to comply with all applicable NSPS conditions.

Authority for Requirement: DNR Construction Permit 07-A-982-P1  
40 CFR Part 60 Subpart IIII  
567 IAC 23.1(2)"yyy"

B. National Emission Standards for Hazardous Air Pollutants (NESHAP): This emission unit is subject to subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines, and subpart A – General Provisions.

The engine is a new reciprocating internal combustion engine located at a major source of HAP, and it is rated less than or equal to 500 HP. In accordance with §63.6590 (c)(6), the engine must comply with the requirements of Subpart ZZZZ by meeting the requirements of NSPS subpart IIII. No further requirements apply to this engine under Subpart ZZZZ.

Authority for Requirement: DNR Construction Permit 07-A-982-P1  
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): 8

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): 820 (1740 acfm)

Exhaust Temperature (°F): 660

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-982-P1

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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

### Associated Equipment

Associated Emission Unit ID Numbers: EU-P120

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Emission Unit vented through this Emission Point: EP-S120

Emission Unit Description: Utility Boiler #1

Raw Material/Fuel: Natural Gas or Propane

Rated Capacity: 99 MMBtu/hr

### **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1) (2)</sup>

Authority for Requirement: DNR Construction Permit 17-A-121-S1

<sup>(1)</sup> The emission limit is based on a six (6) minute average.

<sup>(2)</sup> 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 (PM<sub>2.5</sub>)

Emission Limit(s): 0.74 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-121-S1

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

Emission Limit(s): 0.74 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-121-S1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.74 lb/hr <sup>(3)</sup>; 0.6 lb/MMBtu

Authority for Requirement: DNR Construction Permit 17-A-121-S1  
567 IAC 23.3(2)"b"(3)

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

Emission Limit(s): 0.06 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-121-S1

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

Emission Limit(s): 3.96 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-121-S1

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 8.15 lb/hr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 17-A-121-S1

<sup>(3)</sup> Standard is expressed as the average of three (3) runs.

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner*

- A. This boiler shall be fired by only natural gas or propane. The owner or operator shall track the amount and type of fuel combusted in this boiler per 40 CFR §60.48c(g).
- B. The owner or operator shall submit all applicable reports per 40 CFR §60.48c.

Authority for Requirement: DNR Construction Permit 17-A-121-S1

**NSPS and NESHAP Applicability**

This emission unit is subject to Subpart Dc of the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [§60.40c – §60.48c] and Subpart A – General Provisions.

Authority for Requirement: DNR Construction Permit 17-A-121-S1  
40 CFR Part 60 Subpart Dc  
567 IAC 23.1(2)"III"

This emission unit is subject to Subpart DDDDD of the National Emission Standards for Hazardous Air Pollutants (NESHAP) – Industrial, Commercial and Institutional Boilers and Process Heaters and Subpart A – General Provisions.

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD  
567 IAC 23.108(3)

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 62.67

Stack Opening, (inches, dia.): 40

Exhaust Flow Rate (scfm): 19,370

Exhaust Temperature (°F): 283

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 17-A-121-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: EP-11**

Associated Equipment

Associated Emission Unit ID Numbers: EU-P11a; EU-P11b; EU-P11c; EU-P11d

Emissions Control Equipment ID Number: C11

Emissions Control Equipment Description: Biomethanator Flare (6.4 MMBtu/hr – only operates when DDGS Dryer A is not operating)

EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-11	EU-P11a	Methanator #1	Biogas or Wastewater	80 scfm biogas or 225 gal/min wastewater
	EU-P11b	Methanator #2		80 scfm biogas or 225 gal/min wastewater
	EU-P11c	Methanator #3		80 scfm biogas or 225 gal/min wastewater
	EU-P11d	Methanator #4		80 scfm biogas or 225 gal/min wastewater

**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.*

PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 07-A-957-P1

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

Emission Limit(s): 0.0019 lb/MMBtu <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-957-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.0019 lb/MMBtu <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-957-P1

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

Emission Limit(s): 0.0007 lb/MMBtu <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-957-P1

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

Emission Limit(s): 0.07 lb/MMBtu <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-957-P1

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 98% Reduction <sup>(3)</sup>; 0.052 lb/MMBtu <sup>(4)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-957-P1

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 0.37 lb/MMBtu <sup>(2)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-957-P1

<sup>(1)</sup>Standard is expressed as a six-minute average.

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

<sup>(3)</sup>The percent reduction limit applies across the flare, C11.

<sup>(4)</sup>The pound per hour limit is the limit from the exhaust of the flare, C11.

Other Limits:

Pollutant: Opacity  
Emission Limit(s): 40%  
Authority for Requirement: DNR Construction Permit 07-A-957-P1  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>)  
Emission Limit(s): 0.02 lb/hr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-957-P1

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: DNR Construction Permit 07-A-957-P1  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limit(s): 0.01 lb/hr <sup>(1)</sup>; 500 ppmv  
Authority for Requirement: DNR Construction Permit 07-A-957-P1  
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>)  
Emission Limit(s): 0.45 lb/hr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-957-P1

Pollutant: Carbon Monoxide (CO)  
Emission Limit(s): 2.37 lb/hr <sup>(5)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-957-P1

<sup>(5)</sup>Standard is expressed as the average of three (3) runs.

### **Operational Limits & Requirements**

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

Operating limits for this emission unit shall be:

- A. The methanator off-gasses shall be routed to the biomethanator flare for no more than 2,190 hours per 12-month rolling period.
- B. The methanator off-gasses shall be controlled by either the biomethanator flare or DDGS Dryer A (EU P10a) for combustion. At no time shall the methanators release off-gasses directly to the atmosphere.
- C. The auxiliary fuel used in the flare is limited to natural gas or propane.
- D. The flare shall be designed and operated to meet a 98% VOC destruction efficiency and the minimum requirements of 40 CFR §60.18(b) through §60.18(f).
- E. The owner or operator shall develop an operating and maintenance plan for the flare, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- F. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.

### **Reporting and Recordkeeping**

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

- A. Record monthly, the total amount of time the methanator off-gasses are routed to the biomethanator flare, in hours. Calculate and record 12-month rolling totals.
- B. The owner or operator shall monitor the presence of the pilot flame and other parameters of the flare according to the provisions of 40 CFR 60.18.
- C. The owner or operator shall keep a record of the manufacturer's design expected efficiency available for inspection.
- D. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.

Authority for Requirement: DNR Construction Permit 07-A-957-P1

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 34

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 1,500

Exhaust Temperature (°F): 1,800

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-957-P1

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: EP-22

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F50

Emissions Control Equipment ID Number: CE-C22a; CE-C22b

Emissions Control Equipment Description: Vapor Recovery System; Enclosed Flare

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EP	EU	Emission Unit Description	Raw Material	Rated Capacity
EP-22	EU-F50	Ethanol Loadout	Ethanol	850 gal/min via truck; 1000 gal/min via railcar

### 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.*

#### PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): 0% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

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

Emission Limit(s): 0.0076 lb/MMBtu <sup>(2)</sup>; 0.17 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.0076 lb/MMBtu <sup>(2)</sup>; 0.17 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

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

Emission Limit(s): 0.0006 lb/MMBtu <sup>(2)</sup>; 0.01 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

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

Emission Limit(s): 0.10 lb/MMBtu <sup>(2)</sup>; 2.26 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 98% Reduction <sup>(4)</sup>; 6.05 lb/hr <sup>(5)</sup>; 1.35 lb/hr <sup>(6)</sup>; 4.78 tons/yr <sup>(3)(7)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 0.37 lb/MMBtu <sup>(2)</sup>; 8.37 tons/yr <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

<sup>(1)</sup>Standard is expressed as a six-minute average.

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

<sup>(3)</sup>Ton per year limits are the sum of emissions from both rail and truck loadout and correlate to an alcohol loadout limit of 208,500,000 gallons per 12-month rolling period of denatured ethanol and a truck switchloading limit of 68,805,000 gallons per 12-month rolling period.

<sup>(4)</sup>The percent reduction limit applies across the enclosed flare, CE-C22b.

<sup>(5)</sup>The pound per hour limit is the limit from the exhaust of the enclosed flare, CE-C22b when loading out via truck when the truck previously contained gasoline.

<sup>(6)</sup>The pound per hour limit is the limit from the exhaust of the enclosed flare, CE-C22b when loading out via railcar.

<sup>(7)</sup>The VOC emissions from the flare exhaust (EP22) are 4.53 tons per 12-month rolling period and are 2.29 tons per 12-month rolling period from the uncaptured emissions from loadout operations (F50). The VOC emissions from the flare exhaust include VOC emissions attributed to combustion.

#### Other Limits:

Pollutant: Opacity

Emission Limit(s): 40% <sup>(8)</sup> <sup>(9)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6  
567 IAC 23.2(2)"d"

<sup>(8)</sup> Visible emissions 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).

<sup>(9)</sup> The emission limit is a six (6) minute average.

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

Emission Limit(s): 0.09 lb/hr <sup>(10)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-965-P6  
567 IAC 23.3(2)"a"

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

Emission Limit(s): 0.01 lb/hr <sup>(10)</sup>; 500 ppmv

Authority for Requirement: DNR Construction Permit 07-A-965-P6  
567 IAC 23.3(3)"e"

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

Emission Limit(s): 1.24 lb/hr <sup>(10)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965-P6

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 4.6 lb/hr<sup>(10)</sup>

Authority for Requirement: DNR Construction Permit 07-A-965P5

<sup>(10)</sup> Standard is expressed as the average of three (3) runs.

**Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The facility may load out both denatured (up to 5% denaturant) and undenatured ethanol. Undenatured ethanol may only be shipped under a Federal Alcohol and Tobacco Tax and Trade Bureau distilled spirits plant industrial use permit.
  - a. If the facility ships undenatured ethanol, the owner or operator shall maintain a copy of the Federal Alcohol and Tobacco Tax and Trade Bureau distilled spirits plant industrial use permit for inspection.
- B. The facility shall not load out more than 208,500,000 gallons of ethanol per 12-month rolling period of which only 200,000,000 gallons may be undenatured ethanol.
  - a. Record monthly, the total amount of ethanol, both denatured and undenatured, loaded out through these emission units each month in gallons. Calculate and record 12-month rolling totals.
  - b. Record monthly, the total amount of undenatured ethanol loaded out through these emission units each month in gallons. Calculate and record 12-month rolling totals.
- C. The facility shall not load out to trucks more than 68,805,000 gallons of ethanol per 12-month rolling period. It is assumed that all trucks loaded out are switch loaded (i.e. trucks whose previous load was gasoline).
  - a. Record monthly, the total amount of ethanol, both denatured and undenatured, that was loaded out to trucks in gallons. Calculate and record 12-month rolling totals.
- D. The facility may load out up to three railcars or two railcars and one truck at a time.
- E. The facility shall not switch load railcars (i.e. fill railcars whose previous load was gasoline).
- F. The hatch seal on the vapor recovery system shall be visually inspected for any defects and to ensure that it is properly seated on the hatch opening twice per week. Hatch seals that are damaged shall be removed from service until they are repaired or replaced.
- G. The enclosed flare shall be operated at all times ethanol is being loaded out to truck or rail. At no time shall the loadout system operate uncontrolled.
- H. The auxiliary fuel used in the flare is limited to natural gas, biogas or propane.
- I. The owner or operator shall monitor the presence of the pilot flame and other parameters of the flare according to the provisions of 40 CFR 60.18.
- J. The flare shall be designed and operated to meet a 98% VOC destruction efficiency and the minimum requirements of 40 CFR §60.18(b) through §60.18(f).
  - a. The owner or operator shall keep a record of the manufacturer's design expected efficiency available for inspection.
- K. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 through §60.19) and subpart VVa (40 CFR §60.480a through §60.489a).
  - a. The owner or operator shall follow the applicable recordkeeping and reporting

standards of Subpart VVa, 40 CFR 60.486a and 60.487a.

- L. The owner or operator shall develop an operating and maintenance plan for the vapor recovery system and enclosed flare, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- M. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.
  - a. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.
- N. The owner or operator shall maintain all records required by the NESHAP Subpart FFFF and all applicable referenced requirements.

Authority for Requirement: DNR Construction Permit 07-A-965-P6

### **NSPS and NESHAP Applicability**

This facility is subject to the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63 Subpart FFFF], and this emission unit is an affected source. This unit is classified as a Group 2 Transfer Rack with no requirements under the subpart. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

Authority for Requirement: DNR Construction Permit 07-A-965-P6  
40 CFR Part 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

### **Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 60

Exhaust Flow Rate (scfm): 2,673

Exhaust Temperature (°F): 1,218

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-965-P6

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: EP-F60**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F60  
Emissions Control Equipment ID Number: CE-C60  
Emissions Control Equipment Description: Leak Detection and Repair

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Emission Unit vented through this Emission Point: EU-F60  
Emission Unit Description: VOC Emissions from Equipment Leaks  
Raw Material/Fuel: VOC Fugitive Emissions

### **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.*

#### **PSD BACT Limits:**

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 27.99 tons/yr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-971-P2

<sup>(1)</sup> Standard is a 12-month rolling total.

#### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The VOC emissions from equipment leaks at this facility, 19-04-002, shall not exceed 27.99 tons per 12-month rolling period.
- B. The component count shall be documented as to the number and types of components used. Components include, but are not limited to, valves, pumps, compressor seals, flanges, etc. All components shall be tested initially including those of vacuum service, there is no de minimus level.
- C. The owner or operator shall follow the applicable standards of NSPS Subpart VVa (40 CFR§60.480a through 40 CFR§489a) for the purposes of BACT.
- D. Calculate and record the VOC and HAP emissions based on the documented component count. Emission factors shall be based on EPA document 453/R-95-017 titled Protocol for Equipment Leak Emission Estimates. This facility shall be divided into three sections: fermentation process, distillation process and tank farm/loadout systems. The facility will use the following methodology to calculate VOC and HAP emissions.
  - a. Determine the component count for each of the three facility sections. This count shall be updated with each modification to that section of the facility.

- b. On a monthly basis, take a minimum of five samples of liquid from five different locations within each section of the plant and determine the organic content and individual HAP content of each sample. If 100% organic content is used, monthly sampling is not required. The average organic content of the streams in each section shall be determined and used in the calculations of emissions. If after one year of sampling, the average of each months samples shows less than a 2% variation over the 12-month average, the 12-month average may be used in future calculations and sampling may be ended.
  - i. VOC content sampling shall be completed following the procedures in 40 CFR §60.485a(d).
- c. From each months leak detection tracking information, determine the following for each component type:
  - i. The number or fraction of sources that were repaired the previous month that were found to be leaking this month.
  - ii. The number or fraction of sources that were successfully repaired after being found to leaking in the previous months' monitoring.
  - iii. The number or fraction of sources that were found to not be leaking during the previous months' monitoring, which were found to be leaking during this months' monitoring.
- d. Using the information collected in (c.) above, determine the control efficiency of the leak detection and repair program as outlined in EPA's document 453/R-95-017 titled Protocol for Equipment Leak Emission Estimates (page 5-54 through 5-57) Control efficiencies listed in table 5.2 (page 5-9) may be assumed for those components listed. If these control efficiencies are assumed, the information required by (c.) above need not be recorded for that component type.
- e. Using the information collected above, determine the VOC emissions over the previous month from each section of the facility using the calculation methods outlined in EPA's document 453/R-95-017 titled Protocol for Equipment Leak Emission Estimates (page 2-11).
- E. At the end of each month, record the total VOC emissions over the previous month from the facility by adding the emissions totals for each section of the dry mill as determined in D(a). Calculate and record 12-month rolling totals.
- F. At the end of each month calculate the individual and total HAP emissions over the previous month from the facility by multiplying the individual HAP fraction determined from each section of the plant. Calculate and record 12-month rolling totals.
- G. The owner or operator shall follow the recordkeeping and reporting standards of Subpart VVa, 40 CFR §60.486a and 40 CFR §60.487a for purposes of BACT.
- H. The owner or operator shall maintain all records required by the NESHAP Subpart FFFF and all applicable referenced requirements.

Authority for Requirement: DNR Construction Permit 07-A-971-P2

### **NSPS and NESHAP Applicability**

This emission point is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart VVa - *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 (40 CFR Part 60 §60.480a) to satisfy the requirements of NSPS VV. This emission point is also subject to the requirements/conditions of NSPS Subpart A-General Provisions.*

Authority for Requirement: DNR Construction Permit 07-A-971-P2  
40 CFR 60 Subpart VVa  
567 IAC 23.1(2)"nn"

This facility is subject to the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63 Subpart FFFF], and this emission unit is an affected source representing equipment leaks in the whole facility. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

Authority for Requirement: DNR Construction Permit 07-A-971-P2  
40 CFR Part 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

**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-F80**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F80  
Emissions Control Equipment ID Number: CE-F80  
Emissions Control Equipment Description: Mist Eliminator 0.0005%

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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.*

#### PSD BACT Limits:

Pollutant: Opacity  
Emission Limit(s): 0% <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-979-P1

<sup>(1)</sup>Standard is expressed as the average of three (3) runs.

Pollutant: Particulate Matter (PM<sub>10</sub>)  
Emission Limit(s): 0.0005% Drift Loss <sup>(2)</sup> <sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-979-P1

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.0005% Drift Loss <sup>(2)</sup> <sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-979-P1

<sup>(2)</sup>This is the required control efficiency of the drift eliminator in gallons of drift per gallon of cooling water flow with a maximum of 2,000 mg/l for Total Dissolved Solids (TDS).

<sup>(3)</sup> The construction permit incorrectly states 0.005% drift loss.

#### Other Limits:

Pollutant: Opacity  
Emission Limit(s): 40% <sup>(4)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-979-P1  
567 IAC 23.3(2)"d"

<sup>(4)</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). This is across all four cells for emission rate and opacity.

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

Emission Limit(s): 0.25 lb/hr <sup>(5)</sup>

Authority for Requirement: DNR Construction Permit 07-A-979-P1

<sup>(5)</sup>Standard is expressed as the average of three (3) runs.

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 07-A-979-P1

567 IAC 23.3(2)"a"

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The total dissolved solids (TDS) of the water used shall not exceed 2000 ppm.
  - a. Record the analysis of the TDS of the water used for each month this emission unit is in use.
- B. Chromium based and VOC or HAP containing water treatment chemicals (i.e. biocides, fungicides, scale inhibitors, etc.) shall not be used in this emission unit.
  - a. Retain a copy of the Safety Data Sheet (SDS) for each water treatment chemical used in this emission unit.

Authority for Requirement: DNR Construction Permit 07-A-979-P1

### **Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 336 for each cell (total of 4 cells)

Exhaust Flow Rate (scfm): 760,000 (780,000 acfm) for each cell

Exhaust Temperature (°F): Ambient / 85°F

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 07-A-979-P1

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: EP-F81**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F81  
Emissions Control Equipment ID Number: CE-F81  
Emissions Control Equipment Description: Mist Eliminator

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Emission Unit vented through this Emission Point: EU-F81  
Emission Unit Description: Cooling Tower #2  
Raw Material/Fuel: Cooling Water  
Rated Capacity: 29,000 gal/min, 3 cells combined

### **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 14-A-675-S2  
567 IAC 23.3(2)"d"

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

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

Emission Limit(s): 0.73 lb/hr <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 14-A-675-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.73 lb/hr <sup>(2)</sup>; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 14-A-675-S2  
567 IAC 23.3(2)"a"

<sup>(2)</sup>Standard is expressed as the average of three (3) runs.

#### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

A. The total dissolved solids (TDS) in the circulating water for Cooling Tower #2 (EU-F81) shall not exceed 5,000 parts per million, based on weight.

- a. The owner or operator shall sample the TDS concentration in the circulating water for Cooling Tower #2 (EU-F81) at least once per each month that the cooling tower is in operation.
  - i. The sampling shall be conducted using an industry standard method or procedure.
- b. The owner or operator shall maintain the following records for each TDS sampling:
  - i. Test results in parts per million based on weight;
  - ii. Date of each measurement; and
  - iii. The method used to obtain each measurement.
- B. The owner or operator shall not use any additives containing hazardous air pollutants, volatile organic compounds, or chromium in the circulating water for Cooling Tower #2 (EU-F81).
  - a. The owner or operator shall maintain Safety Data Sheets for each additive used in the circulating water for Cooling Tower #2 (EU-F81).
- C. Cooling Tower #2 (EU-F81) shall be maintained according to the manufacturer's specifications and maintenance schedule.
  - a. The owner or operator shall maintain a record of all inspection and maintenance activities performed on Cooling Tower #2 (EU-F81).

Authority for Requirement: DNR Construction Permit 14-A-675-S2

**Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 336

Exhaust Flow Rate (scfm): 1,149,382

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 14-A-675-S2

\* Listed values are for *each* of the three cells. Total exhaust flowrate is 3,448,146 scfm for all three cells combined.

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: EP-F100**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-F100

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Emission Unit vented through this Emission Point: EU-F100  
Emission Unit Description: Dust Emissions from Internal Plant Roads  
Raw Material/Fuel: Fugitive Dust

### **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.*

#### PSD BACT Limits:

Pollutant: Opacity

Emission Limit(s): No Visible Emissions <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 07-A-981-P1

<sup>(1)</sup>No visible emissions shall be observed beyond the lot line of the property.

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

Emission Limit(s): <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-981-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 07-A-981-P1

<sup>(2)</sup> BACT limits for PM and PM<sub>10</sub> is expressed in the form of a work practice standard as opposed to an emission limit. See Operational Limits & Requirements section for details.

#### Other Limits:

Pollutant: Opacity

Emission Limit(s): <sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 07-A-981-P1  
567 IAC 23.3(2)"c"

<sup>(3)</sup>The owner or operator 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.

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

Emission Limit(s): 5.27 tons/yr <sup>(4)</sup>

Authority for Requirement: DNR Construction Permit 07-A-981-P1

Pollutant: Particulate Matter (PM)

Emission Limit(s): 26.35 tons/yr <sup>(4)</sup>

Authority for Requirement: DNR Construction Permit 07-A-981-P1

<sup>(4)</sup> Standard is a 12-month rolling total.

### **Operational Limits & Requirements**

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

### **Operating Limits**

- A. All haul roads at the facility shall be paved.
- B. The haul road surface silt loading shall not exceed 0.65 g/m<sup>2</sup> (limit based on dispersion modeling).
- C. All spills on the haul road surface shall be cleaned up as soon as possible after the spill occurs.
- D. Fugitive emissions of paved haul roads shall be controlled by either completing daily water flushing followed by sweeping or by obtaining a vacuum sweeper that can meet a minimum of 80% overall control of emissions and completing daily sweeping as required by BACT.
  - a. Sweeping and watering need not occur on any day that the haul road is not in use.
  - b. Sweeping and watering need not occur when a rain gauge located at the facility indicates that at least 0.2 inches of precipitation (water equivalent) has occurred within the preceding 24-hour time period.
  - c. Watering will not be required on calendar days where the daily high temperature is below 35 degrees F.
  - d. If a facility has applied salt or sand for worker or driver safety the facility is not required to sweep or wash until the road has returned to driving conditions that no longer require the use of salt or sand.
- E. The owner or operator is limited to a maximum of 256,000 vehicle miles of truck traffic per 12-month rolling period.

### **Reporting and Recordkeeping**

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

- A. Record the frequency of cleaning performed on the haul roads. The facility shall keep a written record of any deviations from Item D in the Operating Limits section above due to either suspended use of the haul road or weather conditions.
- B. Record the type of cleaning (i.e. vacuum sweeping, washing, etc.) performed on the haul roads for each cleaning event.
- C. Performance testing on the haul road surface silt loading shall be completed on a quarterly basis. Performance testing may be reduced to once per year if 12 consecutive quarters of testing show silt load values less than 50% of the applicable silt loading limit. Silt loading testing shall resume on a quarterly basis if any annual test at any location is greater than 50% of the applicable silt loading limit. For each performance test, silt loading sampling shall be

done for at least 3 different locations and immediately prior to the next cleaning cycle.  
D. Record the total number of vehicle miles travelled on the haul roads at the facility each month, in miles. Calculate and record 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 07-A-981-P1

**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-T61, EP-T62

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T61, EU-T62

Emissions Control Equipment ID Number: CE-T61, CE-T62

Emissions Control Equipment Description: Internal Floating Roof

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EP	EU	Emission Unit Description	Raw Material	Rated Capacity (gallons)
EP-T61	EU-T61	Ethanol (Denatured or Udenatured) Storage Tank	Denatured or Udenatured Ethanol	1,500,000
EP-T62	EU-T62	Ethanol (Denatured or Udenatured) Storage Tank	Denatured or Udenatured Ethanol	1,500,000

### 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.*

#### PSD BACT Limits:

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 0.36 tons/yr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 07-A-972-P2, 07-A-973-P2

<sup>(1)</sup> Standard is expressed as a 12-month rolling total.

#### Operational Limits & Requirements

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

#### **Operating Limits**

- A. These tanks shall be used to store only denatured or undenatured ethanol.
- B. The owner or operator shall follow the applicable standards of NSPS Subpart VVa (40 CFR§60.480a through 40 CFR§489a).
- C. These emission units are subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR§60.1 through 40 CFR §60.19) and Kb (40 CFR §60.110b through 40 CFR §60.117b).
- D. These tanks shall be designed and operated to meet the requirements for an internal floating roof in 40 CFR §63.1062 through §63.1063 and 40 CFR §60.112b as required by the best available control technology (BACT) analysis.

## **Reporting and Recordkeeping**

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

- A. The owner or operator shall follow the recordkeeping and reporting standards of Subpart VVa, 40 CFR §60.486a and 40 CFR §60.487a for purposes of BACT.
- B. Record monthly, the total amount of ethanol both denatured and undenatured, processed through these tanks each month in gallons. Calculate VOC emissions, both working and breathing losses, from the tanks in tons on a monthly basis and record the 12-month rolling total.
- C. The owner or operator of these tanks shall follow the testing and observation procedures of 40 CFR §60.113b(a) as required by the best available control technology (BACT) analysis.
- D. These emission units are subject to all applicable recordkeeping, notification and reporting requirements as set forth in NESHAP Subparts A (40 CFR §63.1 through 40 CFR §63.15) and NSPS Subparts A (40 CFR §60.1 through 40 CFR §60.19) and Kb (40 CFR §60.115b and 40 CFR §60.116b). Reporting and recordkeeping shall include keeping the following records:
  - a. A record of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.
  - b. Certification that the internal floating roof meets the specification of 40 CFR §60.112b(a)(1) and 40 CFR §60.113b(a)(1).
  - c. A record of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall include the date of the inspection and the observed condition of each component of the control equipment (seals, internal floating roof, fittings, etc). If an inspection finds control equipment defects, the record shall include the reason the tank did not meet the specifications and a description of the repairs made.

Authority for Requirement: DNR Construction Permits 07-A-972-P2, 07-A-973-P2

## **NSPS and NESHAP Applicability**

These storage tanks are subject to the following NSPS subparts:

Subpart A – General Provisions

Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels

Authority for Requirement: DNR Construction Permits 07-A-972-P2, 07-A-973-P2  
40 CFR Part 60 Subpart Kb  
567 IAC 23.1(2)"ddd"

These emission units are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Synthetic Organic Manufacturing Industry Manufacturing [40 CFR Part 63 Subpart FFFF]. However, these units are classified as a Group 2 sources with no requirements under the subpart. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

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

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 42

Stack Opening, (inches, dia.): NA

Exhaust Flow Rate (scfm): Working and Breathing Losses

Exhaust Temperature (°F): Ambient

Discharge Style: NA

Authority for Requirement: DNR Construction Permits 07-A-972-P2, 07-A-973-P2

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: EP-T63**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T63  
Emissions Control Equipment ID Number: CE-C63  
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EU-T63  
Emission Unit Description: 200 Proof Anhydrous 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.*

#### **PSD BACT Limit:**

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.71 tons/yr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-974-P2

<sup>(1)</sup> Standard is expressed as a 12-month rolling total and is a work practice standard based on the LDAR system.

#### **Operating Requirements with Associated Monitoring and Recordkeeping**

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

- A. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR 60.1 through 60.19) and Kb (40 CFR 60.110b through 60.117b).
- B. This emission unit is subject to all applicable recordkeeping, notification and reporting requirements as set forth in NESHAP Subparts A (40 CFR §63.1 through 40 CFR §63.15) and NSPS Subparts A (40 CFR §60.1 through 40 CFR §60.19) and Kb (40 CFR §60.115b and 40 CFR §60.116b). Reporting and recordkeeping shall include keeping the following records:
  - a. A record of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.
  - b. Certification that the internal floating roof meets the specification of 40 CFR §60.112b(a)(1) and 40 CFR §60.113b(a)(1).
  - c. A record of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall include the date of the inspection and the observed condition of each component of the control equipment (seals, internal floating roof, fittings, etc). If an inspection finds control equipment defects,

the record shall include the reason the tank did not meet the specifications and a description of the repairs made.

- C. The owner or operator shall follow the applicable standards of Subpart VVa, 40 CFR 60.480a through 40 CFR 60.489a.
  - a. The owner or operator shall follow the recordkeeping and reporting standards of Subpart VVa, 40 CFR §60.486a and 40 CFR §60.487a for purposes of BACT.
- D. This tank shall be used to store only 200-proof anhydrous ethanol. This limitation is meant to be a general descriptive term and is not meant to prohibit any product that may not be exactly 200-proof due to normal variations in product quality.
  - a. Record monthly, the total amount of ethanol both denatured and undenatured, processed through this tank each month in gallons. Calculate VOC emissions, both working and breathing losses, from the tank in tons on a monthly basis and record the 12-month rolling total.
- E. The tank shall be designed and operated to meet the requirements for an internal floating roof in 40 CFR 60.112b as required by the BACT analysis.
  - a. The owner or operator of this tank shall follow the testing and observation procedures of 40 CFR §60.113b(a) as required by the best available control technology (BACT) analysis.

Authority for Requirement: DNR Construction Permit 07-A-974-P2

### **NSPS and NESHAP Applicability**

This tank is subject to the following NSPS subparts:

Subpart A – General Provisions

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

Authority for Requirement: DNR Construction Permit 07-A-974-P2  
40 CFR Part 60 Subpart Kb  
567 IAC 23.1(2)"ddd"

This emission unit is subject to the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63 Subpart FFFF]. However, this unit is a Group 2 Storage Tank with no requirements under the subpart. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

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

**Emission Point Characteristics**

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

- Stack Height, (ft, from the ground): 33
- Stack Opening, (inches, dia.): N/A
- Exhaust Flow Rate (scfm): Working and Breathing Losses
- Exhaust Temperature (°F): Ambient
- Discharge Style: N/A
- Authority for Requirement: DNR Construction Permit 07-A-974-P2

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: EP-T64**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T64  
Emissions Control Equipment ID Number: CE-C64  
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EU-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.*

#### **PSD BACT Limits:**

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 1.49 tons/yr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-975-P1

<sup>(1)</sup>Standard is expressed as a 12-month rolling total.

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

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

#### **Operating Limits**

- A. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 through §60.19) and Kb (40 CFR §60.110b through §60.117b).
- B. The owner or operator shall follow the applicable standards of Subpart VVa, 40 CFR §60.480a through 40 CFR §60.489a.
- C. This tank shall be used to store only denaturant.
- D. The tank shall be designed and operated to meet the requirements for an internal floating roof in 40 CFR §60.112b as required by the BACT analysis.

#### **Reporting and Recordkeeping**

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

- A. The owner or operator shall record monthly the denaturant throughput for this tank in

- gallons, and then calculate and record the VOC emissions, both working and breathing losses, from the tank in tons on a monthly basis and also as a twelve month rolling total. The emissions shall utilize the most recent version of the EPA TANKS model.
- B. 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.
- C. The emission unit is subject to all applicable recordkeeping, notification and reporting requirements as set forth in NSPS Subparts A (40 CFR 60.1 through 60.19), Kb (40 CFR 60.115b and 60.116b) and VVa (40 CFR 60.486a and 60.487a). Reporting and recordkeeping shall include the following:
- a. A record of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.
  - b. Certification that the internal floating roof meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1).
  - c. A record of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall include the date of the inspection and the observed condition of each component of the control equipment (seals, internal floating roof, fittings, etc.) If an inspection finds control equipment defects, the record shall include the reason the tank did not meet the specifications and the date and a description of the repairs made.
  - d. This facility shall follow the recordkeeping requirements of NSPS subpart VVa according to 40 CFR 60.486a.
  - e. This facility shall follow the reporting requirements of NSPS subpart VVa according to 40 CFR 60.487a.

Authority for Requirement: DNR Construction Permit 07-A-975-P1

### **NSPS and NESHAP Applicability**

This tank is subject to the following NSPS subparts:

Subpart A – General Provisions

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

Authority for Requirement: DNR Construction Permit 07-A-975-P1  
40 CFR Part 60 Subpart Kb  
567 IAC 23.1(2)"ddd"

This emission unit is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Synthetic Organic Manufacturing Industry Manufacturing [40 CFR Part 63 Subpart FFFF]. This unit is classified as a Group 1 Storage Tank. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

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

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 33  
Stack Opening, (inches, dia.): NA  
Exhaust Flow Rate (scfm): Working and Breathing Losses  
Exhaust Temperature (°F): Ambient  
Discharge Style: NA  
Authority for Requirement: DNR Construction Permit 07-A-975-P1

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: EP-T65**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T65  
Emissions Control Equipment ID Number: CE-T65  
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EU-T65  
Emission Unit Description: 190 Proof Ethanol Storage 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.*

#### **PSD BACT Limits:**

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.74 tons/yr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-976-P2

<sup>(1)</sup> Standard is expressed as a 12-month rolling total and is a work practice standard based on the LDAR system.

#### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR 60.1 through 60.19) and Kb (40 CFR 60.110b through 60.117b).
- B. This emission unit is subject to all applicable recordkeeping, notification and reporting requirements as set forth in NESHAP Subparts A (40 CFR §63.1 through 40 CFR §63.15) and NSPS Subparts A (40 CFR §60.1 through 40 CFR §60.19) and Kb (40 CFR §60.115b and 40 CFR §60.116b). Reporting and recordkeeping shall include keeping the following records:
  - a. A record of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.
  - b. Certification that the internal floating roof meets the specification of 40 CFR §60.112b(a)(1) and 40 CFR §60.113b(a)(1).
  - c. A record of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall include the date of the inspection and

the observed condition of each component of the control equipment (seals, internal floating roof, fittings, etc). If an inspection finds control equipment defects, the record shall include the reason the tank did not meet the specifications and a description of the repairs made.

- C. The owner or operator shall follow the applicable standards of Subpart V Va, 40 CFR 60.480a through 40 CFR 60.489a.
  - a. The owner or operator shall follow the recordkeeping and reporting standards of Subpart VVa, 40 CFR §60.486a and 40 CFR §60.487a for purposes of BACT.
- D. This tank shall be used to store only 190-proof anhydrous ethanol. This limitation is meant to be a general descriptive term and is not meant to prohibit any product that may not be exactly 190-proof due to normal variations in product quality.
  - a. The owner or operator shall record monthly the 190-proof ethanol throughput for this tank in gallons, and then calculate and record the VOC emissions, both working and breathing losses, from the tank in tons on a monthly basis and also as a twelve month rolling total. The emissions calculations shall utilize the most recent version of the EPA TANKS model.
- E. The tank shall be designed and operated to meet the requirements for an internal floating roof in 40 CFR 60.112b as required by the BACT analysis.
  - a. The owner or operator of this tank shall follow the testing and observation procedures of 40 CFR §60.113b(a) as required by the best available control technology (BACT) analysis.

Authority for Requirement: DNR Construction Permit 07-A-976-P2

### **NSPS and NESHAP Applicability**

This tank is subject to the following NSPS subparts:

Subpart A – General Provisions

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

Authority for Requirement: DNR Construction Permit 07-A-976-P2  
40 CFR Part 60 Subpart Kb  
567 IAC 23.1(2)"ddd"

This emission unit is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Synthetic Organic Manufacturing Industry Manufacturing [40 CFR Part 63 Subpart FFFF]. However, this unit is classified as a Group 2 source with no requirements under the subpart. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

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

**Emission Point Characteristics**

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

- Stack Height, (ft, from the ground): 33
- Stack Opening, (inches, dia.): N/A
- Exhaust Flow Rate (scfm): Working and Breathing Losses
- Exhaust Temperature (°F): Ambient
- Discharge Style: N/A
- Authority for Requirement: DNR Construction Permit 07-A-976-P2

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: EP-T66**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T66

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Emission Unit vented through this Emission Point: EU-T66  
Emission Unit Description: Additive (Corrosion Inhibitor) Tank  
Raw Material/Fuel: Corrosion Inhibitor  
Rated Capacity: 2,300 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.*

#### **PSD BACT Limits:**

Pollutant: Volatile Organic Compounds (VOC)  
Emission Limit(s): 0.05 tons/yr <sup>(1)</sup>  
Authority for Requirement: DNR Construction Permit 07-A-977-P1

<sup>(1)</sup> Standard is expressed as a 12-month rolling total.

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

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

#### **Operating Limits**

- A. The owner or operator is limited to using a maximum of 15,000 gallons of additive (proprietary substance) per rolling 12-month period.
- B. The owner or operator shall furnish the Department with final detailed plans and specifications for all emission control equipment selected by the owner to meet the emission limits contained in the section of Emission Limits. In addition, the facility shall detail all revisions made to the affected emission units. This information shall be submitted to the Department at least 30 days in advance of construction of any control equipment.

#### **Reporting and Recordkeeping**

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

- A. The owner or operator shall record monthly the total amount of additive stored in this tank each month in gallons, and then calculate and record the VOC emissions, both working and

breathing losses, from the tank in tons on a monthly basis and also as a twelve month rolling total.

Authority for Requirement: DNR Construction Permit 07-A-977-P1

**Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): NA

Exhaust Flow Rate (scfm): Working and Breathing Losses

Exhaust Temperature (°F): Ambient

Discharge Style: NA

Authority for Requirement: DNR Construction Permit 07-A-977-P1

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: EP-T67**

### Associated Equipment

Associated Emission Unit ID Numbers: EU-T67  
Emissions Control Equipment ID Number: C67  
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EU-T67  
Emission Unit Description: Ethanol (Denatured or Undenatured) Storage Tank  
Raw Material/Fuel: Denatured or Undenatured Ethanol  
Rated Capacity: 1,500,000 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.*

No applicable 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. This tank shall be used to store only denatured or undenatured ethanol.
- B. The owner or operator shall follow the applicable standards of NSPS Subpart VVa (40 CFR§60.480a through 40 CFR§489a).
- C. This emission unit is subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR§60.1 through 40 CFR §60.19) and Kb (40 CFR §60.110b through 40 CFR §60.117b).
- D. The tank shall be designed and operated to meet the requirements for an internal floating roof in 40 CFR §63.1062 through §63.1063 and 40 CFR §60.112b as required by the best available control technology (BACT) analysis.

#### **Reporting and Recordkeeping**

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

- A. The owner or operator shall follow the recordkeeping and reporting standards of Subpart VVa, 40 CFR §60.486a and 40 CFR §60.487a for purposes of BACT.
- B. Record monthly, the total amount of ethanol both denatured and undenatured, processed through this tank each month in gallons. Calculate VOC emissions, both working and

breathing losses, from the tank in tons on a monthly basis and record the 12-month rolling total.

- C. The owner or operator of this tank shall follow the testing and observation procedures of 40 CFR §60.113b(a) as required by the best available control technology (BACT) analysis.
- D. This emission unit is subject to all applicable recordkeeping, notification and reporting requirements as set forth in NESHAP Subparts A (40 CFR §63.1 through 40 CFR §63.15) and NSPS Subparts A (40 CFR §60.1 through 40 CFR §60.19) and Kb (40 CFR §60.115b and 40 CFR §60.116b). Reporting and recordkeeping shall include keeping the following records:
  - a. A record of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored.
  - b. Certification that the internal floating roof meets the specification of 40 CFR §60.112b(a)(1) and 40 CFR §60.113b(a)(1).
  - c. A record of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall include the date of the inspection and the observed condition of each component of the control equipment (seals, internal floating roof, fittings, etc). If an inspection finds control equipment defects, the record shall include the reason the tank did not meet the specifications and a description of the repairs made.

Authority for Requirement: DNR Construction Permit 14-A-674

### **NSPS and NESHAP Applicability**

This emission point is subject to the following NSPS subparts:

Subpart A – General Provisions

Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels

Authority for Requirement: DNR Construction Permit 14-A-674  
40 CFR Part 60 Subpart Kb  
567 IAC 23.1(2)"ddd"

This emission unit is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Synthetic Organic Manufacturing Industry Manufacturing [40 CFR Part 63 Subpart FFFF]. However, this unit is classified as a Group 2 Storage Tank and has no requirements under the subpart. This facility is also subject to 40 CFR Part 63 Subpart A – General Provisions.

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

**Emission Point Characteristics**

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

- Stack Height, (ft, from the ground): 42
- Stack Opening, (inches, dia.): N/A
- Exhaust Flow Rate (scfm): Working and Breathing Losses
- Exhaust Temperature (°F): Ambient
- Discharge Style: N/A
- Authority for Requirement: DNR Construction Permit 14-A-674

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: EP-F01**

Associated Equipment

Associated Emission Unit ID Numbers: EU-F01

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Emission Unit vented through this Emission Point: EU-F01  
Emission Unit Description: Grain Handling Uncaptured Emissions  
Raw Material/Fuel: Grain (Shelled Corn)  
Rated Capacity: 1,900,000 tons grain/yr

**Applicable Requirements**

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

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

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

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: 567 IAC 23.4(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)

**Emission Point ID Number: EP-F02**

Associated Equipment

Associated Emission Unit ID Numbers: EU-F02

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Emission Unit vented through this Emission Point: EU-F02  
Emission Unit Description: DDGS Loading Uncaptured Emissions  
Raw Material/Fuel: Dried Distillers Grains  
Rated Capacity: 552,500 tons DDGS/yr

**Applicable Requirements**

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

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

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

Pollutant: Particulate Matter (PM)  
Emission Limit(s): 0.1 gr/dscf  
Authority for Requirement: 567 IAC 23.4(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)

## 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 Permits, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

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

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

#### **G4. Annual Compliance Certification**

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

#### **G5. Semi-Annual Monitoring Report**

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

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

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The 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:
  - 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(3), 567 IAC 23.1(4)*

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

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));.
  - e. The changes comply with all applicable requirements.
  - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
    - i. A brief description of the change within the permitted facility,
    - ii. The date on which the change will occur,
    - iii. Any change in emission as a result of that change,
    - iv. The pollutants emitted subject to the emissions trade
    - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
    - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
    - vii. Any permit term or condition no longer applicable as a result of the change.
2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

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

#### **1. Administrative Amendment.**

a. An administrative permit amendment is a permit revision that does any of the following:

- i. Correct typographical errors
- ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- iii. Require more frequent monitoring or reporting by the permittee; or
- iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

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

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

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

a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:

- i. Do not violate any applicable requirement;
- ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
- iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
- iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
- v. Are not modifications under any provision of Title I of the Act; and
- vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).

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

- i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- ii. The permittee's suggested draft permit;
  - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
  - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

### 3. Significant Title V Permit Modification.

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

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

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

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

#### **G20. Asbestos**

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

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

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

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

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

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

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle

has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting 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 not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or

revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

#### **G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- a. Such applicable requirements are included and are specifically identified in the permit; or
- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
- d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

#### **G26. Severability**

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

#### **G27. Property Rights**

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

#### **G28. Transferability**

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

#### **G29. Disclaimer**

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

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

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed

to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

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

Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
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:

Chief of Air Permits  
U.S. EPA Region 7  
Air Permits and Compliance Branch  
11201 Renner Blvd.  
Lenexa, KS 66219  
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
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**  
909 West Main – Suite 4  
Manchester, IA 52057  
(563) 927-2640

**Field Office 2**  
2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 3**  
1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 4**  
1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 5**  
7900 Hickman Road, Suite #200  
Windsor Heights, IA 50324  
(515) 725-0268

**Field Office 6**  
1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

**Polk County Public Works Dept.**  
Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

**Linn County Public Health**  
Air Quality Branch  
501 13th St., NW  
Cedar Rapids, IA 52405  
(319) 892-6000

## V. Appendix: Weblinks to Standards

- A. 40 CFR 60 Subpart A – General Provisions  
<https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.a&rgn=div6>
- B. 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units  
[https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.d\\_0b&rgn=div6](https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.d_0b&rgn=div6)
- 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  
[https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.k\\_0b&rgn=div6](https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.k_0b&rgn=div6)
- D. 40 CFR 60 Subpart VVa – 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  
[https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.vv\\_0a&rgn=div6](https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.7.60.vv_0a&rgn=div6)
- E. 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines  
<https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.8.60.iiii&rgn=div6>
- F. 40 CFR 63 Subpart A – General Provisions  
<https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.11.63.a&rgn=div6>
- G. 40 CFR 63 Subpart FFFF - National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing  
<https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.14.63.ffff&rgn=div6>
- H. 40 CFR 63 Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines  
<https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.15.63.zzzz&rgn=div6>
- I. 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters  
<https://www.ecfr.gov/cgi-bin/text-idx?mc=true&node=sp40.15.63.ddddd&rgn=div6>