Iowa Department of Natural Resources Title V Operating Permit

Name of Permitted Facility: Cargill, Inc. - Eddyville Facility Location: 17540 Monroe-Wapello Road, Eddyville, IA 52553 Air Quality Operating Permit Number: 06-TV-006R1 Expiration Date: October 26, 2027 Permit Renewal Application Deadline: April 26, 2027

EIQ Number: 92-0752 Facility File Number: 68-09-001

<u>Responsible Official</u> Name: Jonathan Razink Title: Facility Manager Mailing Address: 17540 Monroe-Wapello Road, Eddyville, IA 52553 Phone #: (641) 969-3768

<u>Permit Contact Person for the Facility</u> Name: Steven Phillips Title: Environmental Manager Mailing Address: 17540 Monroe-Wapello Road, Eddyville, IA 52553 Phone #: (641) 969-3918

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

Mainie Stein

Marnie Stein, Supervisor of Air Operating Permits Section

10/27/2022

Date

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Abbreviations

acfm	actual cubic feet per minute
	Code of Federal Regulation
СЕ	control equipment
CEM	continuous emission monitor
°F	
	emissions inventory questionnaire
EP	emission point
EU	
gr./dscf	grains per dry standard cubic foot
	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
MVAC	motor vehicle air conditioner
NAICS	North American Industry Classification System
NSPS	new source performance standard
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 PM ₁₀	particulate matter particulate matter ten microns or less in diameter
PM _{2.5}	particulate matter 2.5 microns or less in diameter
SO ₂	. sulfur dioxide
NO _x	nitrogen oxides
VOC	volatile organic compound
СО	. carbon monoxide
НАР	hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Cargill, Inc. – Eddyville, IA Permit Number: 06-TV-006R1

Facility Description: Wet Corn Milling (SIC 2046)

Emission	Emission	Emission Unit Description	IDNR
Point	Unit		Construction
Number	Number		Permit Number
		Process Group #1 - Utilities	
51.000	51.000	Boiler #4	89-A-210-S5
84.000	84.000	Boiler #5	92-A-227-S3
84.000	86.000	Boiler #6	92-A-228-S3
122.000	122.000	Engineering/Maintenance Bldgs Emergency Generator	NA
123.000	123.000	Utilities Emergency Fire Pump	NA
232.000	232.000	High Pressure Steam Boiler 1	15-A-219-S1
233.000	233.000	High Pressure Steam Boiler 2	15-A-220-S1
240.000	240.000	Diffuser Pump Engine	NA
RD1	RD1	R&D Boiler	NA
	·	Process Group #2 - Refinery	·
25.000	25.000	Chemical Tank Aspiration	83-A-110-S2
27.000	27.000	Fructose Lime Addition	83-A-112-S1
28.000	28.000	Fructose Precoat Unloading/Storage	83-A-113-S2
33.000	33.000	Fructose Check Filter Aid Addition	84-A-129-S1
37.000	37.000	Carbon Furnace I	87-A-002-S6
56.000	56.000	Carbon Furnace II	91-A-018-S6
129.000	129.000	Refinery Hot Well Aspiration	98-A-110
	•	Process Group #3 - Process	
5.000	5.000	Corn Receiving 1	83-A-090-S2
7.000	7.000	Steephouse Conveying & Corn Cleaning	83-A-092-S3
	8.1	Steeping Vessels	
8.000	8.2	Steep Water Evaporation Vessels	83-A-093-S3
	8.3	Mill Front End Vessels	
	9.1	Mill Front End Vessels	
9.000	9.2	Mill Back End Vessels	83-A-094-S5
	9.3	TK-3010 Overflow Tank	
53.000	53.000	Corn Receiving 2	90-A-352-S7
55 000	55.1	Five Steeping Vessels	00 A 254 D4
55.000	55.2	Five Steep Water Evaporation Vessels	90-A-354-P4

Equipment List

Equipment List

Emission	Emission	Emission Unit Description	IDNR
Point	Unit	-	Construction
Number	Number		Permit Number
	102A	Gluten Filter Cloth A	
	102B	Gluten Filter Cloth B	
	102C	Gluten Filter Cloth C	
102.000	102D	Gluten Filter Cloth D	95-A-405-P3
102.000	102E	Gluten Filter Cloth E	93-A-403-P3
	102F	Gluten Filter Cloth F	
	102G	Gluten Filter Cloth G	
	102H	Gluten Filter Cloth H	
	104.000	Fiber Flash Dryer 3	
104.000	104.201	Germ Dryer 1	00-A-467-S4
	104.202	Germ Dryer 2	
105.013	105.013	Gluten Loadout Conveyor I	83-A-098-S7
105.040	105.014	Gluten Loadout Conveyor II	88-A-061-P6
105.103	105.103	Gluten Flash Dryer Conveying I	95-A-406-P5
105.109	105.109	Gluten Flash Dryer Conveying II	95-A-407-P4
100.000	106.062	Gluten Flash Dryer I	05 4 412 55
106.000	106.901	Gluten Flash Dryer II	95-A-412-S5
110.000	119.000J	Gluten Filter Cloth J	05 4 415 D4
119.000		Gluten Filter Cloth K	95-A-415-P4
121.000	121.000	Process Backup Generator	96-A-1039
189.000	189.100	7 Gluten Vacuum Pumps	15-A-499-S2
	•	Process Group #4 - Feed	
1.000	1.052	Fiber Pre-Dryers 1 and 2	90-A-085-S6
	18.1	12 Refiners	
18.000	18.2	Conveying	83-A-103-S3
	18.3	Feedhouse Tanks	
105.019	105.019	Feed & Storage Loadout – Rail	83-A-104-P6
105.040	105.040	Feed Loadout - Truck	88-A-061-P6
105.290	105.290	Corn Germ Meal Silo	15-A-198
137.000	137.000	Sweet Feed SEM Silo Receiver	00-A-468-S3
	140.000	Sweet Feed Rail Loadout	01-A-1162-S2
	210.134	Fiber Pneumatic Conveyor 1	
210.000	210.135	Fiber Pneumatic Conveyor 2	07-A-1282-S2
	210.136	CC/SEM Pneumatic Conveyor	
Process Group #5 - Germ			l
67.000	67.000	Mineral Oil Scrubber	91-A-114-S3
68.000			03-A-004-P2
234.000	68.000	Building Aspiration	17-A-162-P1
69.000	69.000	Extraction & DT Aspiration	03-A-005-P3
70.000	70.000	Germ Storage Aspiration	91-A-117-S2

Equipment List

Emission	Emission	Emission Unit Description	IDNR	
Point Unit		*	Construction	
Number Number			Permit Number	
	107.058	Flaker Conditioner		
	107.259	Expeller Aspiration I		
107.000	107.060	Germ Dryer/Cooler	12 4 271 02	
107.000	107.064	Cold Germ Transfer Receiver	13-A-271-P2	
	107.210	Expeller Aspiration II		
	107.215	Germ Cooler		
133.000	133.000	Meal Drying/Cooling & Conveying	99-A-164-S3	
139.000	139.000	Germ Meal Dryer/Cooler	01-A-574-S1	
146.000	146.000	Dry Germ Silo	03-A-131-S3	
	•	Process Group #6 - Ethanol		
	77.1	Beer Column		
	77.2	Rectifying Column	01 4 004 D5	
77.000	77.3	Stripping Column	91-A-234-P5	
	77.4	Molecular Sieve Unit		
7 0,000	78.1	Rectifying Column Evaporator	01 4 005 D4	
78.000	78.2	Molecular Sieve Unit Evaporator	91-A-235-P4	
79.000	79.000	Ethanol Loadout	91-A-236-P5	
80.000 80.000 Ethanol Tank Farm		91-A-237-S1		
	85.1	Prefermenter		
	85.2	Fermenter #1		
	85.3	Fermenter #2		
	85.4	Fermenter #3		
85.000	85.5	Fermenter #4	93-A-115-P4	
	85.6	Fermenter #5		
	85.7	Beerwell		
	226	Yeast Propagator		
		Process Group #7 – Citric Acid		
41.000	41.000	Lime/Precoat Weigh & LX Contact Hoppers	88-A-105-S2	
44.000		Precoat Weigh Hopper	88-A-108-P2	
50.000	50.000	Lime/Precoat Storage Silo	89-A-150-S2	
83.000	83.000	Citric Acid Solvent Extraction	93-A-005-P3	
	108.047.1	Fluid Bed Dryer/Cooler		
108.047	108.047.2	Classified Crystal Dissolving Tanks	88-A-111-S4	
108.081	108.081	Dry Crystal Cooler	92-A-103-P5	
	108.082.1	Fluid Bed Dryer/Cooler		
108.082	108.082.2	Classified Crystal Dissolving Tanks	92-A-104-P4	
118.000	118.000	LX Startup/Shutdown Tank	95-A-069-S1	
120.000	120.000	Citric Backup Generator	96-A-1040	
125.000	125.000	Lime Dissolve Tank	97-A-1096-S2	
126.000	126.000	Lime Storage Silo	97-A-1097-S2	
172.000	172.000	Acidulants Fermenter V	05-A-786-S1	

Insignificant Emission	Insignificant Emission Unit Description				
Unit Number	o i i i i i i i i i i i i i i i i i i i				
	Process Group #1 - Utilities				
167	Bulk HCl Tanks Loading/Unloading				
182	West Gasoline Fueling Tank (560 gallons)				
183	West Diesel Fueling Tank (560 gallons)				
184	Fire Pump Diesel Tank (800 gallons)				
185	Generator Diesel Fuel Tank (800 gallons)				
194.7, 194.8	35% HCl Tanks				
195.3	50% NaOH Tank				
196.9	Ag Lime Loading Arm				
197.0-197.15	WWTP Liquor Basins, Roughing Filters, Clarifiers				
227	Waster Treatment Lime Silo Vent				
229	Waste Water Treatment Blower				
238	East Gasoline Fuel Tank (3000 gallons)				
239	East Diesel Fuel Tank (3000 gallons)				
241, 241.1-241.5	Portable Cooling Towers				
501.1-501.6	Mill/Utility Cooling Towers				
505-509	WWTP Vented Manholes				
510	Utilities 35% HCl Tank				
EURD3-EURD6	R&D Fermenters and SPF				
HEATERS	Natural Gas Heaters				
MANHOLES	WWTP Fugitive Manholes (8)				
Process Group #2 - Re					
188.1-188.4	Refinery Cooling Towers (4)				
194.1-194.3	NaOH and H ₂ SO ₄ Tanks				
500	Refinery HCl Tank Scrubber				
Process Group #3 - Pro					
223	Bucket Elevator Dust Collector				
524	Corn Cleaning Aspiration				
232	Crax Slurry Tank				
243	Corn Grading Dust Collector				
244.1-244.3	Dryer #1 and #3 Wet Germ Piles				
504	Crax Bin				
Process Group #4 - Fe					
169	Crax Aspiration				
197.8	Gluten Trans Rail Unloading/Loading				
173	Fiber Receiving and Handling				
194.9	SBT Batch Tank				
195.0-195.2	SBT Batch, Fiber, Mix Tanks				
195.5	Feed Preloading				
197.9	Gluten Trans Truck Unloading/Loading				
222	Feed Loadout Vacuum Pump				
Process Group #5 - Ge					
170	Extraction Feed Drag Vent				
186	Germ Cooling Tower				
186.1, 186.2	Germ Cooling Towers (2)				
100.1, 100.2					

Insignificant Activities Equipment List

Insignificant Emission	Insignificant Emission Unit Description
Unit Number	•
Process Group #6 - Etha	
190.1-190.4	Ethanol Cooling Towers (4)
TK-71606	Stillage Product Tank
TK-71508	Thin Stillage Tank
TK-72531	Ethanol Additive
TK-71901	Rinse Tank
Process Group #7 – Cita	ric Acid
CITRICTANKS1	MON Group 2 Tank Vents (44 Tanks)
CITRICTANKS2	MON Group 2 Tank Vents (32 Tanks)
CITRICTANKS3	MON Group 2 Tank Vents (11 Tanks)-
CITRICTANKS4	MON Group 2 Tank Vents (4 Tanks)
148-166, 231	Acidulant Fermenters A-Z
187	Soda Ash Unloading
193.1-193.5	Citric Acid Cooling Towers (5)
194.4	Dextrose Tank
220	TSC Xtal Vacuum Pump
221	Glucosamine Dust Collector
225.1a-b	Tetra Seed Tanks C & D
225.2-225.4	Fermenter R, Gypsum Drum, Crystallizer Feed Tank
225.5, 225.6	Crystallizer B, Loadout Tank
228	Citric Acid Silos Aspiration
230	GAP Mother Liquor Tank
235-237	Surge Tanks A-C
242, 242.1	Temporary Generators
503	Citric Acid Packaging Aspriation
511-523	MON Group 2 Continuous Vents

II. Plant-Wide Conditions

Facility Name: Cargill, Inc. – Eddyville, IA Permit Number: 06-TV-006R1

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

Permit Duration

The term of this permit is: Five (5) years from permit issuance Commencing on: October 27, 2022 Ending on: October 26, 2027

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

Emission Limits

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

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

<u>Sulfur Dioxide (SO₂):</u> 500 parts per million by volume Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter:

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

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B). Authority for Requirement: 567 IAC 23.3(2)"a"

<u>Fugitive Dust:</u> Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance,

as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

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

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

III. Emission Point-Specific Conditions

Facility Name: Cargill, Inc. – Eddyville, IA Permit Number: 06-TV-006R1

Utilities

Emission Point ID Number: 51.000

Associated Equipment

Emission	Emission Unit	Control	Monitoring	Raw	Rated	Construction
Unit	Description	Equipment	Equipment	Material	Capacity	Permit
1.000	Boiler #4	CE 51: Low NO _x Burner, Flue Gas Recirculation	ME 51: NO _x CEM	Natural Gas	230 MMBtu/hr.	89-A-210-S5

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40 %⁽¹⁾ Authority for Requirement: DNR Construction Permit 89-A-210-S5 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 2.30 lb/hr Authority for Requirement: DNR Construction Permit 89-A-210-S5

Pollutant: Particulate Matter Emission Limit(s): 0.6 lb/MMBtu Authority for Requirement: DNR Construction Permit 89-A-210-S5 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 500 ppmv Authority for Requirement: 567 IAC 23.3(3)"e" Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 46.0 lb/hr Authority for Requirement: DNR Construction Permit 89-A-210-S5

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 0.10 lb/MMBtu Authority for Requirement: DNR Construction Permit 89-A-210-S5 567 IAC 23.1(2)"ccc" 40 CFR Part 60 Subpart Db

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 0.06 lb/MMBtu Authority for Requirement: DNR Construction Permit 89-A-210-S5

Operational Limits & Requirements

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

Process throughput:

1. This unit shall burn only natural gas.

Reporting & Record keeping:

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

- 1. The owner/operator shall maintain all appropriate records as required by the New Source Performance Standards (NSPS) as outlined in 40 CFR 60.49b.
- 2. The owner/operator shall maintain all appropriate records as required by the National Emissions Standard for Hazardous Air Pollutants (NESHAP) as outlined in 40 CFR 63.7555.

Authority for Requirement: DNR Construction Permit 89-A-210-S5 567 IAC 23.1(2)"ccc"

40 CFR Part 60 Subpart Db

NSPS:

This boiler is subject to the provisions of 40 CFR Part 60 Subpart Db (Standards of Performance for Industrial/Commercial/Institutional Steam Generating Units).

Authority for Requirement: DNR Construction Permit 89-A-210-S5 567 IAC 23.1(2)"ccc" 40 CFR Part 60 Subpart Db

NESHAP:

This emission unit is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 159
Stack Opening, (inches, dia.): 120
Exhaust Flow Rate (scfm): 47,600
Exhaust Temperature (°F): 300
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 89-A-210-S5

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

Monitoring Requirements

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

Continuous Emissions Monitoring:

The owner or operator shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring **Nitrogen Oxide** (NO_x) emissions discharged to the atmosphere. The CEM shall be operated and data collected as required under 40 CFR 60.48b(c), (d), (e) and (f).

Authority for Requirement: DNR Construction Permit 89-A-210-S5

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

Emission Point ID Number: 84.000

Emission Unit	Emission Unit Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity	Construction Permit
84.000	Boiler #5	CE 84: Low NO _x Burner, Flue Gas Recirculation	ME 84: NO _x	Natural Gas	182.1 MMBtu/hr.	92-A-227-S3
86.000	Boiler #6	CE 86: Low NO _x Burner, Flue Gas Recirculation	CEM	Natural Gas	182.1 MMBtu/hr.	92-A-228-S3

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40 % Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM-10 Emission Limit(s): 1.82 lb/hr (each boiler) Authority for Requirement: DNR Construction Permits 92-A-227-S3 & 92-A-228-S3

Pollutant: Particulate Matter Emission Limit(s): 0.6 lb/MMBtu Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 500 ppmv Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 18.20 lb/hr (each boiler)⁽¹⁾ Authority for Requirement: DNR Construction Permits 92-A-227-S3, 92-A-228-S3 567 IAC 23.1(2)"ccc" 40 CFR Part 60 Subpart Db

 $^{(1)}$ Total NO_x emissions from boilers 5 & 6 shall not exceed 212.1 lb/hr, based on a 30-day rolling average of CEMS data.

Operational Limits & Requirements

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

Process throughput:

- 1. Natural Gas boiler capacity of each boiler shall not exceed 182.1 MMBtu/hr.
- 2. Each boiler shall only operate on natural gas.

Control equipment parameters:

1. Low NO_x burner shall be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

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

- 1. Record the average amount of natural gas consumed (MMBtu/hr) every day of operation.
- 2. Perform monthly operational status inspections of processes and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permits 92-A-227-S3 & 92-A-228-S3

NSPS:

These boilers are each subject to the provisions of 40 CFR Part 60 Subpart Db (Standards of Performance for Industrial/Commercial/Institutional Steam Generating Units).

Authority for Requirement:DNR Construction Permits 92-A-227-S3 & 92-A-228-S3567 IAC 23.1(2)"ccc"40 CFR Part 60 Subpart Db

NESHAP:

This emission unit is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 149
Stack Opening, (inches, dia.): 72
Exhaust Flow Rate (acfm): 106,000 total (53,000 per emission unit)
Exhaust Temperature (°F): 332
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 92-A-227-S3 & 92-A-228-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Continuous Emissions Monitoring:

Continuous monitoring of NOx emissions is required. This will require the monitoring of NOx and O2 or CO2 per 40 CFR 60, Appendix B, Performance Specifications 2 & 3 respectively.

Authority for Requirement:	DNR Construction Permits 92-A-227-S3 &	2 92-A-228-S3
Agency Approved Operation	on & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operat	ion & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Mo	nitoring (CAM) Plan Required?	Yes 🗌 No 🖂

Emission Point ID Numbers: 122.000 & 123.000

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
122.000	122.000	Engineering/Maintenance Blds Emergency Generator	Diesel Fuel	270 bhp	NA
123.000	123.000	Utilities Fire Pump	Diesel Fuel	327 bhp	NA

Associated Equipment

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

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

Operational Limits & Requirements

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

Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

Reporting & Record keeping:

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

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

NESHAP:

These emergency engines are subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) these compression ignition emergency engines, located at a major source, are existing stationary RICE as they were constructed prior to June 12, 2006.

Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of Subpart ZZZZ that are applicable by May 3, 2013.

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

- 1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
- 2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
- 3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- 5. Install a non-resettable hour meter if one is not already installed.
- 6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

- 1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
- 2. There is no time limit on the use of emergency stationary RICE in emergency situations.
- 3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
- 4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

- 1. Keep records of the maintenance conducted on the stationary RICE.
- 2. Keep records of the hours of operation of the engine that is recorded through the nonresettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

- 1. An initial notification is not required per 40 CFR 63.6645(a)(5).
- 2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

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

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 🖂

Emission Point ID Numbers: 232.000 & 233.000

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity	Construction Permit
232.000	232.000	High Pressure Gas Boiler 1	CE 232: Low NO _x Burners, Flue Gas Recirculation	ME 232: NO _x	Natural Gas	397.46 MMBtu/hr	15-A-219-S1
233.000	233.000	High Pressure Gas Boiler 2	CE 233: Low NO _x Burners, Flue Gas Recirculation	ME 233: NO _x	Natural Gas	397.46 MMBtu/hr	15-A-220-S1

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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): $40\%^{(1)}$

Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of "no visible emissions (No VE)" 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: PM_{2.5} Emission Limit(s): 3.0 lb/hr Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1

Pollutant: PM₁₀ Emission Limit(s): 3.0 lb/hr Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1

Pollutant: Particulate Matter Emission Limit(s): 3.0 lb/hr, 0.6 lb/MMBtu Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 500 ppm Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxide (NO_x) Emission Limit(s): 0.20 lb/MMBtu Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1 567 IAC 23.1(2)"ccc" 40 CFR 60 Subpart Db

Pollutant: Nitrogen Oxide (NO_x) Emission Limit(s): 40.0 lb/hr Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 33.5 lb/hr Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. These emission units (EU 232 & 233) shall only combust natural gas.
- 2. In accordance with 40 CFR §60.49b(g), the owner or operator shall maintain records of the following information for each steam generating unit operating day for each boiler:
 - a. Calendar date;
 - b. The average hourly NO_x emission rates (in ng/J or lb/MMBTU heat input and expressed as NO₂) measured or predicted;
 - c. The thirty (30) day average NO_x emission rates (ng/J or lb/MMBTU heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding thirty (30) steam generating unit operating days.
 - d. Identification of the steam generating unit operating days when the calculated thirty (30) day average NO_x emission rates are in excess of the NO_x emission standards under 40 CFR §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
 - e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - f. Identification of the times when emissions data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - g. Identification of "F" factor used for calculations, method of determination, and the type of fuel combusted;
 - h. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
 - i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

- k. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1.
- 3. In accordance with 40 CFR §60.49b(r), an owner or operator that elects to use the fuel based compliance alternative in 40 CFR §60.42b (SO₂ limits) shall either:
 - a. Obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets the definition of natural gas as defined in 40 CFR §60.41b and the applicable sulfur limit. Reports shall be submitted to the Administrator certifying that only natural gas that is known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period; or
 - b. Develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than sixty (60) days before the date the owner or operator intends to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain the following minimum information:
 - (i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;
 - (ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For natural gas a fuel receipt or tariff sheet is acceptable;
 - (iii)The ratio of different fuels in the mixture; and
 - (iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1 567 IAC 23.1(2)"ccc" 40 CFR 60 Subpart Db

NSPS:

These boilers are each subject to the provisions of 40 CFR Part 60 Subpart Db (Standards of Performance for Industrial/Commercial/Institutional Steam Generating Units).

Authority for Requirement:	DNR Construction Permits 15-A-219-S1 & 15-A-220-S1
	567 IAC 23.1(2)"ccc"
	40 CFR Part 60 Subpart Db

NESHAP:

This emission unit is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 160
Stack Opening, (inches, dia.): 76
Exhaust Flow Rate (scfm): 78,000
Exhaust Temperature (°F): 320
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Continuous Emissions Monitoring:

- 1. The following monitoring systems are required:
 - NO_x:

In accordance with 40 CFR 60.48b(b), the owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) and record the output of the system, for measuring nitrogen oxide (NO_x) emissions.

The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60 Appendix F (Quality Assurance/Quality Control) shall apply.

This monitor shall also be used to demonstrate compliance with the non-NSPS emission standards in this permit.

• **O**₂ or CO₂:

In accordance with 40 CFR §60.48b(b), the owner or operator shall install, calibrate, maintain, and operate a CEMS and record the output of the system, for measuring the oxygen (O_2) or carbon dioxide (CO_2) content of the flue gases at each location where NO_x emissions are monitored.

The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 3 (PS3) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60 Appendix F (Quality Assurance/Quality Control) shall apply.

This monitor shall also be used to demonstrate compliance with the non-NSPS emission standards in this permit.

• Flowmeter:

The owner or operator shall either:

- (1) Install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of 40 CFR 60, Appendix B, Performance Specification 6 and 40 CFR 60, Appendix F, Procedure 1. In addition, the owner or operator shall record the output of the system, for measuring the volumetric flow of exhaust gases discharged to the atmosphere or
- (2) Install, certify, operate, and maintain a flow monitoring system measuring the natural gas flow to this boiler. In addition, the owner or operator shall record the flow of natural gas to this boiler for the calculation of NO_x in lb/hour from the hourly fuel usage in conjunction with the NO_x and CO_2/O_2 measured above.
- 2. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits (CGA) and annual relative accuracy test audit (RATA). Annual RATAs and quarterly CGAs are required to be conducted on all CEMS and flowmeters required by this permit. The results shall be reported in units of the standards.

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.

- 3. The CEMS required in Condition 1 above for NO_x and either O₂ or CO₂ shall be operated and the data recorded during all periods of operation including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.
- 4. The following data requirements shall apply to all CEMS for non-NSPS emission standards in this permit:
 - a. The CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission unit except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
 - b. The 1-hour average NO_x emission rates measured by the CEMS and flow measured by either the flowmeter or natural gas flow 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 one (1) hour average.
 - c. For each hour of missing NO_x emission data, the owner or operator shall substitute data by:
 - (i) If the quarterly monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - (a) For the missing data period less than or equal to 24 hours, substitute the

average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

- (b) For a missing data period greater than 24 hours, substitute the greater of:
 - The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- (ii) If the quarterly monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - (a) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - (b) For the missing data period of more than 8 hours, substitute the greater of:
 - The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
- (iii)If the quarterly monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

Authority for Requirement: DNR Construction Permits 15-A-219-S1 & 15-A-220-S1 567 IAC 23.1(2)"ccc" 40 CFR 60 Subpart Db

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 🖂

Emission Point ID Numbers: 240.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
240.000	Diffuser Pump Engine	Natural Gas	210 hp	NA

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

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

Operational Limits & Requirements

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

NESHAP:

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

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

Authority for Requirement:40 CFR Part 63 Subpart ZZZZ567 IAC 23.1(4)"cz"

NSPS Subpart JJJJ Requirements

Emission Standards:

(40 CFR 60.4233	e) and Table 1	1 1	to Sub	part JJJJ)
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Maximum Engine	Manufacture	Emission Standards ⁽¹⁾							
Power	Date	g/HP-hr ppmvd at					vd at 15%	at 15% O ₂	
		NOx	HC + NOx	CO ⁽²⁾	VOC ⁽³⁾	NOx	CO	VOC	
HP ≥ 130	1/1/2009+	2.0	N/A	4.0	1.0	160	540	86	

⁽¹⁾ Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

⁽²⁾ See rule for alternative CO certification standards for engines ≥ 100 hp and manufactured prior to 1/1/2011.

⁽³⁾ Formaldehyde emissions are not included.

Compliance Demonstrations:

- 1. You must demonstrate compliance with the emission standards according to one of following methods (40 CFR 60.4243(b)):
 - a) Purchasing a certified engine that complies with the emission standards, or
 - b) Purchasing a non-certified engine and demonstrating compliance with the emission standards. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct performance tests to demonstrate compliance in accordance with 40 CFR 60.4244. Owners and operators are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4243(b) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
$25 < HP \le 500$	Required	Not required

- 2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer's written instructions must keep records of required maintenance. 40 CFR 60.4243(b)(1), and 4245(a)(2).
- 3. Owners and operators of natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, a performance test must be conducted to demonstrate compliance with the emission standards. 40 CFR 60.4243(e).
- 4. If you are an owner or operator of engine ≤ 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing, but you are not required to conduct subsequent performance testing unless the engine is rebuilt or undergoes major repair or maintenance. 40 CFR 60.4243(f).
- 5. Owners and operators of certified engines must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).
- 6. Owners and operators of non-certified engines or certified engines operating in a noncertified manner must keep documentation that these engines meet the applicable emission standards. 40 CFR 60.4245(a)(4).

Operating and Recordkeeping Requirements (40 CFR 4243(d))

1. Owners and operators of the following emergency SI engines that do not meet the applicable standards for non-emergency engines must install a non-resettable hour meter. 40 CFR 60.4237.

Maximum Engine Power	Engine Was Built On Or After
$130 \le \text{HP} < 500$	1/1/2011

- 2. There is no time limit on the use of the emergency engine in emergency situations.
- 3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year.
- 4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing.
- 5. Owners and operators of an emergency engine must keep records of all operation of the engine. The owner must record the date and time of operation of the engine and the reason the engine was in operation.
- 6. Owners and operators of the following emergency SI that does not meet the applicable standards for a non-emergency engine must keep the following records. 40 CFR 60.4245(b).

Maximum Engine Power	Manufactured On Or After	Recordkeeping Requirement
$130 \le \text{HP} < 500$	7/1/2011	Hours of operation recorded through a non- resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non- emergency operation.
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Authority for Requirement: 567 IAC 23.1(2)"zzz"

40 CFR 60 Subpart JJJJ

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 🖂

Emission Point ID Number: RD1

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
RD1	R&D Boiler #4	Natural Gas	3.348 MMBtu/hr.	NA

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40 % Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.6 lb/MMBtu Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 500 ppmv Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements

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

NESHAP:

This emission unit is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

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 🖂

Emission Point ID Number: 25.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
25.000	Chemical Tank Aspiration	CE 25.000: Scrubber	Magnesium Bisulfate, Magnesium Sulfate	300 gal/hr	83-A-110-S2

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: Sulfur Dioxide (SO₂) Emission Limit(s): 0.075 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 83-A-110-S2 567 IAC 23.3(3)"e"

Operational Limits & Requirements

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

Process Throughput:

1. This system aspirates 8,000 gallons of Magnesium Sulfate/Magnesium Bisulfate.

Control equipment parameters:

1. Scrubber should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

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

1. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system. This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

Authority for Requirement: DNR Construction Permit 83-A-110-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 67
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (acfm): 1,200
Exhaust Temperature (°F): 110
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-110-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 27.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
27.000	Lime Slurry Storage Tank	CE 27.000: Fabric Filter	Lime	4.8 tons/hr	83-A-112-S1

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40% Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.058 lb/hr, 0.254 tons/yr Authority for Requirement: DNR Construction Permit 83-A-112-S1

Pollutant: Particulate Matter Emission Limit(s): 0.005 gr/dscf, 0.058 lb/hr, 0.254 tons/yr Authority for Requirement: DNR Construction Permit 83-A-112-S1

Operational Limits & Requirements

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

Process throughput:

1. The processing rate of the lime addition shall be limited to 3,240 tons of lime per calendar month.

Control equipment parameters:

1. The Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:

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

- 1. Record the processed rate of lime dumped in tons per calendar month every month of operation.
- 2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and

damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 83-A-112-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 62
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (acfm): 1,350
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-112-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 28.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
28.000	Precoat Storage Bin	CE 28.000: Fabric Filter	Precoat	6.7 tons/hr	83-A-113-S2

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): 0% Authority for Requirement: DNR Construction Permit 83-A-113-S2 567 IAC 23.3(2)"'d"

Pollutant: PM₁₀ Emission Limit(s): 0.027 lb/hr Authority for Requirement: DNR Construction Permit 83-A-113-S2

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

Operational Limits & Requirements

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

Process throughput:

1. The processing rate of the precoat unloading shall be limited to 4,530 tons of precoat per calendar month.

Control equipment parameters:

1. The Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:

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

- 1. Record the processed rate of precoat unloaded in tons per calendar month every month of operation.
- 2. Perform monthly operational status inspections of process and control equipment that is

important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 83-A-113-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 66
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (acfm): 620
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-113-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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. Visble emissions shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>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.

Agency Approved Operation & Maintenance Plan Requ	ired? Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Rec	uired? Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Require	ed? Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

Emission Point ID Number: 33.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
33.000	Filter Aid Storage Bin	CE 33.000: Fabric Filter	Filter Aid	2.3 tons/hr	84-A-129-S1

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40% Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.058 lb/hr, 0.254 tons/yr Authority for Requirement: DNR Construction Permit 84-A-129-S1

Pollutant: Particulate Matter Emission Limit(s): 0.005 gr/dscf, 0.058 lb/hr, 0.254 tons/yr Authority for Requirement: DNR Construction Permit 84-A-129-S1

Operational Limits & Requirements

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

Process throughput:

1. The processing rate of Filter-Aid addition shall be limited to 1,512 tons of Filter Aid per calendar month.

Control equipment parameters:

1. The Fabric Filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ration of no greater than 12.

Reporting & Record keeping:

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

- 1. Record the processed rate of Filter-Aid addition in tons per calendar month every month of operation.
- 2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and

damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 84-A-129-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 54
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (acfm): 1,350
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 84-A-129-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 37.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
37.000	Carbon Furnace I	CE 37.000: Scrubber	Carbon Natural Gas	22 tons/day 15 MMBtu/hr	87-A-002-S6

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 87-A-002-S6 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 0% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter Emission Limit(s): 0.58 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 87-A-002-S6 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 8.5 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 87-A-002-S6 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 7.32 lb/hr Authority for Requirement: DNR Construction Permit 87-A-002-S6

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 95% control or 10 ppmv Authority for Requirement: DNR Construction Permit 87-A-002-S6

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 90% control or 100 ppmv Authority for Requirement: DNR Construction Permit 87-A-002-S6

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The Zero Hearth temperature of the afterburner shall be maintained at or above 1444 °F on a 3-hour block average.
- 2. The owner/operator shall continuously monitor the Zero Hearth temperature of the afterburner associated with this emission unit.
- 3. The owner/operator shall calculate the 3-hour block average Zero Hearth temperature of the afterburner associated with this emission unit.
- 4. The oxidizer capacity is 15.0 mmbtu/hr burning natural gas.
- 5. Record the average amount of natural gas consumed (mmbtu/hr) every day of operation.
- 6. This process is a member of the Refinery Group. The processing rate of the carbon in this unit shall be limited to 22 tons of carbon per day with compliance demonstrated on a 30-day rolling average basis.
- 7. Record the processing rate of carbon in tons per day every day of operation.
- 8. Maintain a 30-day rolling average of the processing rate of carbon every day of operation.
- 9. The scrubber shall be maintained according to manufacturer's specifications.
- 10. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
- 11. Record the pressure drop across the scrubber weekly and compare to the pressure drop recorded during the compliance test.

Authority for Requirement: DNR Construction Permit 87-A-002-S6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 91
Stack Opening, (inches, dia.): 20
Exhaust Flow Rate (scfm): 5,820
Exhaust Temperature (°F): 260
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 87-A-002-S6

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:⁽²⁾

Pollutant – SO₂ Stack Test to be Completed by – 10/26/2024 Test Method - 40 CFR 60, Appendix A, Method 6C Authority for Requirement – 567 IAC 22.108(3)

⁽²⁾ The facility may choose to test one Carbon Furnace (EP 37.000 or 56.000) to demonstrate compliance for both. If the representative test exceeds the emission limit, both furnaces will be considered out of compliance.

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

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

Compliance Assurance Monitoring Plan CAM Plan for EP 37 - Scrubber

- I. <u>Background</u>
 - A. Emissions Unit
 - Description: Carbon Furnace I Identification: EU 37.000 Facility: Cargill Eddyville 17540 Monroe-Wapello Rd Eddyville, IA 52553
 - B. Applicable Regulation, Emission Limit, and Monitoring Requirements Regulation No.: Permit 87-A-002-S6 SO2 emission limit: 8.5 lb/hr, 500 ppmv VOC emission limit: 95% control or 10 ppmv CO emission limit: 90% control or 100 ppmv Current Monitoring requirements:
 - 1. daily production rates and 30-day rolling average production rates
 - 2. daily pressure drop across scrubber
 - 3. monthly inspections of scrubber, records of any deficiencies and corrective actions
 - 4. Stack testing for SO_2 for EP 37 or EP 56 within 2 years of Title V renewal issuance
 - C. Control Technology Scrubber

II. Monitoring Approach

The key elements of the monitoring approach and indicators are presented in the table. Table A – Monitoring Approach

	Indicator #1		
I. Indicator	Differential pressure across scrubber		
Measurement Approach	Differential pressure measured across the scrubber by a		
	pressure gauge.		
II. Indicator Range	Compare to the pressure drop recorded during the		
	compliance test.		
III. Performance Criteria			
A. Data	The differential pressure is measured across the scrubber.		
Representativeness			
B. Verification of	The pressure gauge will be calibrated, operated, and		
Operational Status	maintained according to the manufacturer's specifications.		
C. QA/QC Practices and	Pressure gauges will be calibrated, operated, and		
Criteria	maintained according to the manufacturer's specifications.		
D. Monitoring Frequency	The differential pressure will be inspected a minimum of		
	once per day when the scrubber is operating.		
E. Data Collection	Results of scrubber differential pressure checks will be		
Procedures	recorded in the daily logs. These forms will be kept a		
	minimum of 5 years.		

Emission Point ID Number: 56.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
56.000	Carbon Furnace II	CE 56.000: Scrubber	Carbon Natural Gas	22 tons/day 15 MMBtu/hr	91-A-018-S6

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 91-A-018-S6 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 0% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter Emission Limit(s): 0.50 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 91-A-018-S6 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 8.5 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 91-A-018-S6 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 7.32 lb/hr Authority for Requirement: DNR Construction Permit 91-A-018-S6

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 95% control or 10 ppmv Authority for Requirement: DNR Construction Permit 91-A-018-S6

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 90% control or 100 ppmv Authority for Requirement: DNR Construction Permit 91-A-018-S6

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The Zero Hearth temperature of the afterburner shall be maintained at or above 1458 °F on a 3-hour block average.
- 2. The owner/operator shall continuously monitor the Zero Hearth temperature of the afterburner associated with this emission unit.
- 3. The owner/operator shall calculate the 3-hour block average Zero Hearth temperature of the afterburner associated with this emission unit.
- 4. The oxidizer capacity is 15.0 mmbtu/hr burning natural gas.
- 5. Record the average amount of natural gas consumed (mmbtu/hr) every day of operation.
- 6. This process is a member of the Refinery Group. The processing rate of the carbon in this unit shall be limited to 22 tons of carbon per day with compliance demonstrated on a 30-day rolling average basis.
- 7. Record the processing rate of carbon in tons per day every day of operation.
- 8. Maintain a 30-day rolling average of the processing rate of carbon every day of operation.
- 9. The scrubber shall be maintained according to manufacturer's specifications.
- 10. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
- 11. Record the pressure drop across the scrubber weekly and compare to the pressure drop recorded during the compliance test.

Authority for Requirement: DNR Construction Permit 91-A-018-S6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 94
Stack Opening, (inches, dia.): 26
Exhaust Flow Rate (scfm): 5,050
Exhaust Temperature (°F): 260
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-A-018-S6

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:⁽²⁾

Pollutant – SO₂ Stack Test to be Completed by – 10/26/2024 Test Method - 40 CFR 60, Appendix A, Method 6C Authority for Requirement – 567 IAC 22.108(3)

⁽²⁾ The facility may choose to test one Carbon Furnace (EP 37.000 or 56.000) to demonstrate compliance for both. If the representative test exceeds the emission limit, both furnaces will be considered out of compliance.

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

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

Compliance Assurance Monitoring Plan CAM Plan for EP 56 - Scrubber

- I. <u>Background</u>
 - A. Emissions Unit
 - Description: Carbon Furnace II Identification: EU 56.000 Facility: Cargill Eddyville 17540 Monroe-Wapello Rd Eddyville, IA 52553
 - B. Applicable Regulation, Emission Limit, and Monitoring Requirements Regulation No.: Permit 91-A-018-S6 SO2 emission limit: 8.5 lb/hr, 500 ppmv VOC emission limit: 95% control or 10 ppmv CO emission limit: 90% control or 100 ppmv Current Monitoring requirements:
 - 1. daily production rates and 30-day rolling average production rates
 - 2. weekly pressure drop across scrubber
 - 3. monthly inspections of scrubber, records of any deficiencies and corrective actions
 - 4. Stack testing for SO_2 for EP 37 or EP 56 within 2 years of Title V renewal issuance
 - C. Control Technology Scrubber

II. Monitoring Approach

The key elements of the monitoring approach and indicators are presented in the table. Table A – Monitoring Approach

Indicator #1
Differential pressure across scrubber
Differential pressure measured across the scrubber by a
pressure gauge.
Compare to the pressure drop recorded during the
compliance test.
The differential pressure is measured across the scrubber.
The pressure gauge will be calibrated, operated, and
maintained according to the manufacturer's specifications.
Pressure gauges will be calibrated, operated, and
maintained according to the manufacturer's specifications.
The differential pressure will be inspected a minimum of
once per day when the scrubber is operating.
Results of scrubber differential pressure checks will be
recorded in the daily logs. These forms will be kept a
minimum of 5 years.

Emission Point ID Number: 129.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
129.000	Hotwell Aspiration	CE 129.000: Scrubber	Process Wastewater	13,800 gal/hr	98-A-110

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: Sulfur Dioxide (SO₂) Emission Limit(s): 1.18 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 98-A-110 567 IAC 23.3(3)"e"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 70 Stack Opening, (feet, dia.): 1.3 Exhaust Flow Rate (scfm): 4,000 Exhaust Temperature (°F): 110 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 98-A-110

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

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

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

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

Emission Point ID Number: 5.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
5.000	Corn Receiving I	CE 5.000: Fabric Filter	Corn	700 tons/hr	83-A-090-S2

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 (Stack) Emission Limit(s): 0%	
Authority for Requirement:	DNR Construction Permit 83-A-090-S2
	567 IAC 23.1(2)"ooo" 40 CFR 60 Subpart DD

Pollutant: Opacity (Fugitive)	
Emission Limit(s): 5%	
Authority for Requirement:	DNR Construction Permit 83-A-090-S2
	567 IAC 23.1(2)"000"
	40 CFR 60 Subpart DD

Pollutant: PM₁₀ Emission Limit(s): 1.500 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-090-S2 ⁽¹⁾ Emission limit is BACT

Pollutant: Particulate Matter (Federal) Emission Limit(s): 0.01 gr/dscf Authority for Requirement: 567 IAC 23.1(2)"000" 40 CFR 60 Subpart DD

Pollutant: Particulate Matter (State) Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-090-S2 567 IAC 23.4(7)

Operational Limits & Requirements

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

Process throughput:

1. The receiving capacity rate of this process unit shall be limited to 14,000 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

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

- 1. Estimate and record the receiving rate of corn in tons per day every day of operation
- 2. Maintain a 30-day rolling average of the received rate of corn every day of operation
- 3. Record the pressure drop across the filter weekly, and compare with the pressure drop recorded during compliance testing.
- 4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 83-A-090-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 160 Stack Opening, (inches, dia.): 31 Exhaust Flow Rate (acfm): 35,000 Exhaust Temperature (°F): 70 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 83-A-090-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required at the stack, or a Method 22 observation will be required for fugitive emissions. If an opacity >0 % from the stack, or >5% from fugitive emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

Emission Point ID Number: 7.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
7.000	Steephouse Conveying &	CE 7.000:	Corn	421 tons/hr	83-A-092-S3
/.000	Corn Cleaning	Baghouse	Com	421 10115/111	83-A-092-83

Associated Equipment

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): 0%	
Authority for Requirement:	DNR Construction Permit 83-A-092-S3
	567 IAC 23.1(2)"000"
	40 CFR 60 Subpart DD

Pollutant: PM₁₀ Emission Limit(s): 0.13 lb/hr Authority for Requirement: DNR Construction Permit 83-A-092-S3

Pollutant: Particulate Matter (Federal) Emission Limit(s): 0.01 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-092-S3 567 IAC 23.1(2)"000" 40 CFR 60 Subpart DD

Pollutant: Particulate Matter (BACT) Emission Limit(s): 0.13 lb/hr, 0.005 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-092-S3

Pollutant: Particulate Matter (State) Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-092-S3 567 IAC 23.4(7)

Operational Limits & Requirements

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

Process throughput:

1. This process is a member of Process Group. The steeping capacity of this process group is limited to a maximum of 10,100 tons per day of corn, calculated on a 30-day rolling average.

Control equipment parameters:

1. The fabric filter shall be maintained according to the manufacturer's specifications and shall have an air-to-cloth ratio no greater than 12.

Reporting & Record keeping:

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

1. Record the amount of corn processed in this system, in tons per day. Calculate and record the 30-day rolling average of corn processed in this system.

Authority for Requirement: DNR Construction Permit 83-A-092-S3 567 IAC 22.108(3)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 105
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (scfm): 3,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-092-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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.

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

Emission Point ID Number: 8.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
8.1	Steeping Vessels		Steep Water	1,988,080 gallons	
8.2	Steep Water Evaporation Vessels	CE 8.000: Scrubber	Steep Water	147,376 gallons	83-A-093-S3
8.3	Mill Front End Vessels		Steep Water	300 ft ²	

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement:

Authority for Requirement: DNR Construction Permit 83-A-093-S3 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity 10% 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: PM₁₀ Emission Limit(s): 0.313 lb/hr⁽²⁾, 1.37 tons/yr⁽²⁾ Authority for Requirement: DNR Construction Permit 83-A-093-S3

Pollutant: Particulate Matter Emission Limit(s): 0.313 lb/hr⁽²⁾, 1.37 tons/yr⁽²⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-093-S3 567 IAC 23.4(7)

⁽²⁾ Emission limit is BACT

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 0.41 lb/hr, 1.80 tons/yr, 500 ppmv Authority for Requirement: DNR Construction Permit 83-A-093-S3 567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 21.0 lb/hr Authority for Requirement: DNR Construction Permit 83-A-093-S3 Pollutant: Total HAP Emission Limit(s): 2.13 lb/hr Authority for Requirement: DNR Construction Permit 83-A-093-S3

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the

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

- 1. The 3-hour average scrubber liquid feed rate shall be maintained at or above the average liquid feed rate value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 2. Install, operate, and maintain a system to continuously monitor and record the liquid feed rate to the scrubber associated with Steephouse Aspiration I. This data shall be processed and recorded as a 3-hour block average.
- 3. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 0.5 inches of water column and a maximum of 8.0 inches of water column.
- 4. The owner/operator shall record the pressure drop across the scrubber associated with Steephouse Aspiration I once daily.
- 5. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 6. Maintain an inspection and maintenance log for the scrubber associated with Steephouse Aspiration I. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.
- 7. This process is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.
- 8. At the end of each day, record the amount (in tons) of corn steeped in Process Group during that day.
- 9. At the end of each day, calculate total amount of corn steep in Process Group over the past 30 days by summing up the daily amount (in tons) steeped for each of the last 30 days.
- 10. At the end of each day, calculate the 30-day average daily steep rate by dividing the total amount (in tons) of corn steeped in Process Group over the past 30 days by the number of days steeping occurred during the past 30 days.

Authority for Requirement: DNR Construction Permit 83-A-093-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 120
Stack Opening, (inches, dia.): 24
Exhaust Flow Rate (scfm): 8,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-093-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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

(Construction permit requirements are equivalent to CAM. Additional CAM Plan not required)

Emission Point ID Number: 9.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
9.1	Mill Front End Vessels		Steep Water	150,687 gallons	
9.2	Mill Back End Vessels	CE 9.000: Scrubber	Steep Water	191,476 gallons	83-A-094-S5
9.3	Overflow Tank	Scrubber	Steep Water	32,550 gallons	

Associated Equipment

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: Sulfur Dioxide (SO₂) Emission Limit(s): 2.21 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 83-A-094-S5 567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 76.65 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-094-S5 ⁽¹⁾Combined emission limit from EP's 9, 102, and 119

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day based on a thirty (30) day rolling average. At the end of each day, the owner or operator shall:
 - a. Record the date,
 - b. Record the amount of corn steeped (in tons) in Process Group for that date,
 - c. Calculate total amount of corn steeped in Process Group over the past thirty (30) days by summing the daily amount steeped (in tons) for each of the last thirty (30) days.
 - d. Calculate the thirty (30) day rolling average steep rate by dividing the total amount of corn steeped (in tons) in Process Group over the past thirty (30) days by the number of days steeping occurred during the past thirty (30) days.

- 2. The pH of the liquid fed into the scrubber (CE 9) shall be a minimum of 6.0 on a 3-hour block average basis. At least once per day, the owner or operator shall record a 3-hour block average of the pH of the liquid fed into the scrubber (CE 9).
- 3. The pressure drop across the scrubber (CE 9) shall be a minimum of 6.0 inches of water column (in. H₂O) on a 3-hour block average basis. At least once per day the owner or operator shall record a 3-hour block average of the pressure drop across the scrubber (CE 9).
- 4. The scrubbant feed rate to the scrubber (CE 9) shall be a minimum of 70 gallons per minute (3-hr block average). The owner or operator shall:
 - a. Install and maintain all equipment necessary to continuously monitor the scrubbant feed rate to the scrubber (CE 9) and
 - b. Record the 3-hr block average liquid feed rate to the scrubber (CE 9).

NOTE: For the purposes of this permit, "scrubbant" shall be defined as the liquid fed into the scrubbing chamber where the liquid interacts with the exhaust stream. This shall include all liquid whether it is recycled from within the scrubber (CE 9) or is fresh water added to the scrubber (CE 9).

- 5. The owner or operator shall maintain and operate the scrubber (CE 9) according to the manufacturer's specifications and instructions.
- 6. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.
- 7. In order to demonstrate compliance with the 76.65 tons of VOC/yr limit in Emission Limits, the owner or operator shall:
 - a. Record the date,
 - b. Record the number of hours the emissions were vented to this emission point (EP 9) for that date,
 - c. Track the monthly VOC emissions by:
 - i. Recording the total number of hours the emissions were vented to this emission point (EP 9) during the previous month.
 - ii. Calculate and record the emissions from this emission point (EP 9) over the previous month by multiplying the number of hours emissions were vented through EP 9 over the previous month by the EP 9 VOC emission factor (12.06 lb/hr). If the average VOC emission rate observed during the most recent stack test is higher than the EP 9 VOC emission factor, emissions from EP 9 shall be calculated using the average emission rate from the stack test instead of the EP 9 VOC emission factor until the average VOC emission rate observed in a subsequent stack test is below the EP 9 VOC emission factor (12.06 lb/hr). Once the average VOC emission factor, the owner or operator may use the EP 9 VOC emission factor (12.06 lb/hr) to calculate emissions from this emission point.
 - iii. Calculate and record the total emission rate from this emission point (EP 9) over the previous twelve (12) months by summing the monthly totals of the last twelve (12) months.

- iv. Calculate and record the total emission rate from all three (3) emission points (EP 9, EP 102, and EP 119) over the previous twelve (12) months by summing the twelve (12) month totals for the three (3) emission points (EP 9, EP 102, and EP 119).
- d. If the twelve (12) month rolling total of the VOC emissions exceeds 61.32 tons, the owner or operator shall immediately begin keeping the following daily records:
 - i. Calculate and record the emissions from this emission point (EP 9) over the previous day by multiplying the number of hours emissions were vented through EP 9 over the previous day by the EP 9 VOC emission factor (12.06 lb/hr). If the average VOC emission rate observed during the most recent stack test is higher than the EP 9 VOC emission factor, emissions from EP 9 shall be calculated using the average emission rate from the stack test instead of the EP 9 VOC emission factor until the average VOC emission rate observed in a subsequent stack test is below the EP 9 VOC emission factor (12.06 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 9 VOC emission factor, the owner or operator may use the EP 9 VOC emission factor (12.06 lb/hr) to calculate emissions from this emission point.
 - ii. Calculate and record the total emission rate from this emission point (EP 9) over the previous 365 days by summing the daily totals of the last 365 days.
 - iii. Calculate and record the total emission rate from EPs 9, 102, and 119 over the previous 365 days by summing the 365 day totals for EPs 9, 102, and 119.
- e. Continue daily calculations of VOC emissions until the 365 day total emissions from the EPs 9, 102, and 119 is below 61.32 tons for thirty (30) consecutive days. Once the daily calculations are below 61.32 tons for thirty (30) consecutive days, monthly calculations may resume until such time as the twelve (12) month rolling total exceeds 61.32 tons again.

Authority for Requirement: DNR Construction Permit 83-A-094-S5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 120
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 23,410
Exhaust Temperature (°F): 106
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-094-S5

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

Monitoring Requirements

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

Stack Testing:

Pollutant - VOC Stack Test to be Completed – Every three (3) years^{(1), (2)} Test Method - 40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

Authority for Requirement – DNR Construction Permit 83-A-094-S5 ⁽¹⁾ The owner or operator shall conduct stack testing once every three (3) years. Upon the completion of two (2) tests

that demonstrate compliance with the emission limits of this permit the owner or operator may submit a request to the Department to reduce the frequency of stack testing.

⁽²⁾ Last test completed 12/01/2020

Pollutant – SO₂ Stack Test to be Completed by – 10/26/20204 Test Method - 40 CFR 60, Appendix A, Method 6C Authority for Requirement – 567 IAC 22.108(3)

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes No
(Construction permit requirements are equivalent to CAM. Additional C.	AM Plan not required)

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Emission Point ID Number: 53.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
53.000	Corn and Dry Ingredients Receiving II	CE 53.000: Fabric Filter	Corn	700 tons/hr	90-A-352-S7

Associated Equipment

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): 0%	
Authority for Requirement:	DNR Construction Permit 90-A-352-S7
	567 IAC 23.1(2)"000"
	40 CFR 60 Subpart DD

Pollutant: PM₁₀ Emission Limit(s): 1.546 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 90-A-352-S7 ⁽¹⁾ Emission limit is BACT

Pollutant: Particulate Matter (Federal) Emission Limit(s): 0.01 gr/dscf Authority for Requirement: DNR Construction Permit 90-A-352-S7 567 IAC 23.1(2)"000" 40 CFR 60 Subpart DD

Pollutant: Particulate Matter (State) Emission Limit(s): 0.1 gr/dscf Authority for Requirement: 567 IAC 23.4(7)

Operational Limits & Requirements

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

Process throughput:

1. This process is a member of the Process Group. The receiving capacity rate of this process shall be limited to 14,000 tons of corn and dry feed ingredients per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter on this source shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 15.

Reporting & Record keeping:

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

- 1. Calculate and record the receiving rate of corn and dry feed ingredients in tons per day every day of operation.
- 2. Maintain a 30-day rolling average of the receiving rate of corn and dry feed ingredients every day of operation.
- 3. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.
- 4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 90-A-352-S7

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 120
Stack Opening, (inches, dia.): 44
Exhaust Flow Rate (scfm): 28,600
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-352-S7

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

Monitoring Requirements

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

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

Compliance Assurance Monitoring Plan

CAM Plan for EP 53.000 – Fabric Filter

I. <u>Background</u>

A. Emissions Unit

Description:Corn and Dry Ingredients Receiving IIIdentification:EU 53.000Facility:Cargill Eddyville17540 Monroe-Wapello RdEddyville, IA 52553

 B. Applicable Regulation, Emission Limit, and Monitoring Requirements Regulation No.: Permit 90-A-352-S7 Particulate emission limit: 1.546 lb/hr PM₁₀, 0.01 gr/dscf PM Current Monitoring requirements:

- 1. daily production rates and 30-day rolling average production rates
- 2. weekly pressure drop across fabric filter
- 3. weekly opacity (no visible emissions) readings
- 4. monthly inspections of fabric filter, records of any deficiencies and corrective actions
- C. Control Technology Fabric Filter
- II. Monitoring Approach

The key elements of the monitoring approach and indicators are presented in the table.

	Indicator #1	Indicator #2
I. Indicator	Differential pressure across fabric filter	Visible Emissions
Measurement Approach	Differential pressure measured across the fabric filter by a pressure gauge.	Visible emissions from fabric filter exhaust while EU 53 is operating.
II. Indicator Range	Compare to the pressure drop recorded during the compliance test.	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. Completion of a Method 9 observation

Table A – Monitoring Approach

III. Performance Criteria		if correction action does not return observation to no visible emissions.
A. Data Representativeness	The differential pressure is measured across the fabric filter.	Visible emissions observations are made at the emission point and on the external fabric filter unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Cargill to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the fabric filter is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of fabric filter differential pressure checks will be recorded in the daily logs. These forms will be kept a minimum of 5 years.	Results of "no visible emissions" observations are recorded on the visible emissions log. These forms will be kept a minimum of 5 years.

Emission Point ID Number: 55.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
55.1	Five Steeping Vessels	CE 55.000: Scrubber	Steepwater	2,891,473 gallons (combined)	- 90-A-354-P4
55.2	Five Steep Water Evaporation Vessels		Steepwater	98,978 gallons (combined)	

Associated Equipment

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 90-A-354-P4

Pollutant: PM₁₀ Emission Limit(s): 0.313 lb/hr⁽¹⁾, 1.37 tons/yr⁽¹⁾, 0.005 gr/dscf⁽¹⁾ Authority for Requirement: DNR Construction Permit 90-A-354-P4

Pollutant: Particulate Matter Emission Limit(s): 0.313 lb/hr⁽¹⁾, 1.37 tons/yr⁽¹⁾, 0.005 gr/dscf⁽¹⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 90-A-354-P4 567 IAC 23.4(7)

⁽¹⁾ Emission limit is BACT

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 0.41 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 90-A-354-P4 567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 21.0 lb/hr Authority for Requirement: DNR Construction Permit 90-A-354-P4

Pollutant: Total HAP Emission Limit(s): 2.13 lb/hr Authority for Requirement: DNR Construction Permit 90-A-354-P4

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day based on a thirty (30) day rolling average. At the end of each day, the owner or operator shall:
 - a. Record the date,
 - b. Record the amount of corn steeped (in tons) in Process Group for that date,
 - c. Calculate total amount of corn steeped in Process Group over the past thirty (30) days by summing the daily amount steeped (in tons) for each of the last thirty (30) days.
 - d. Calculate the thirty (30) day rolling average steep rate by dividing the total amount of corn steeped (in tons) in Process Group over the past thirty (30) days by the number of days steeping occurred during the past thirty (30) days.
- 2. The pressure drop across the scrubber (CE 55) shall be maintained between 0.5 inches of water column (in. H₂O) and 8.0 inches of water column (in. H₂O). The owner or operator shall:
 - a. Record the pressure drop across the scrubber (CE 55) once per day.
- 3. The scrubbant feed rate to the scrubber (CE 55) shall be a minimum of 56 gallons per minute (3-hr block average). The owner or operator shall:
 - a. Install, operate, and maintain a system to continuously monitor and record the liquid feed rate to the scrubber (CE 55) and
 - b. Record the 3-hr block average liquid feed rate to the scrubber (CE 55).
- 4. The owner or operator shall maintain the scrubber (CE 55) according to the manufacturer's specifications and instructions. The owner or operator shall:
 - a. Maintain and inspection and maintenance log for the scrubber (CE 55). The log shall include, but is not limited to:
 - i. The date of any inspection or maintenance activities performed,
 - ii. Identification of staff performing the inspection or maintenance,
 - iii. Any issues identified during an inspection, and
 - iv. Explanation of any maintenance performed on the scrubber (CE 55).

Authority for Requirement: DNR Construction Permit 90-A-354-P4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 120
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 5,000
Exhaust Temperature (°F): 120
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-354-P4

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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.

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

Emission Point ID Number: 102.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
102 A-H	Eight Gluten	CE 102.000:	Gluten Slurry	50 gallons/minute (each)	95-A-405-P3
	Filter Cloths	Scrubber			

Associated Equipment

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: Sulfur Dioxide (SO₂) Emission Limit(s): 1.4 lb/hr⁽¹⁾, 500 ppmv Authority for Requirement: DNR Construction Permit 95-A-405-P3 567 IAC 23.3(3)"e"

⁽¹⁾ Emission limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 76.65 tons/yr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-405-P3 ⁽²⁾Combined emission limit from EP's 9, 102, and 119

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day based on a thirty (30) day rolling average. At the end of each day, the owner or operator shall:
 - a. Record the date,
 - b. Record the amount of corn steeped (in tons) in Process Group for that date,
 - c. Calculate total amount of corn steeped in Process Group over the past thirty (30) days by summing the daily amount steeped (in tons) for each of the last thirty (30) days.
 - d. Calculate the thirty (30) day rolling average steep rate by dividing the total amount of corn steeped (in tons) in Process Group over the past thirty (30) days by the number of days steeping occurred during the past thirty (30) days.
- 2. The pH of the liquid fed into the scrubber (CE 102) shall be a minimum of 8.0 on a 3-hour block average basis. At least once per day, the owner or operator shall record a 3-hour block average of the pH of the liquid fed into the scrubber (CE 102).
- 3. The pressure drop across the scrubber (CE 102) shall be a minimum of 1.0 inches of

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water column (in. H_2O) on a 3-hour block average basis. At least once per day the owner or operator shall record a 3-hour block average of the pressure drop across the scrubber (CE 102).

- 4. The scrubbant feed rate to the scrubber (CE 102) shall be a minimum of 130 gallons per minute (3-hr block average). The owner or operator shall:
 - a. Install and maintain all equipment necessary to continuously monitor the scrubbant feed rate to the scrubber (CE 102) and
 - b. Record the 3-hr block average liquid feed rate to the scrubber (CE 102).

NOTE: For the purposes of this permit, "scrubbant" shall be defined as the liquid fed into the scrubbing chamber where the liquid interacts with the exhaust stream. This shall include all liquid whether it is recycled from within the scrubber (CE 102) or is fresh water added to the scrubber (CE 102).

- 5. The owner or operator shall maintain and operate the scrubber (CE 102) according to the manufacturer's specifications and instructions.
- 6. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.
- 7. In order to demonstrate compliance with the 76.65 tons of VOC/yr limit in Emission Limits, the owner or operator shall:
 - a. Record the date,
 - b. Record the number of hours the emissions were vented to this emission point (EP 102) for that date,
 - c. Track monthly VOC emissions by:
 - d. Recording the total number of hours the emissions were vented to this emission point (EP 102) during the previous month.
 - e. Calculate and record the emissions from this emission point (EP 102) over the previous month by multiplying the number of hours emissions were vented through EP 102 over the previous month by the EP 102 VOC emission factor (3.34 lb/hr). If the average VOC emission rate observed during the most recent stack test is higher than the EP 102 VOC emission factor, emissions from EP 102 shall be calculated using the average emission rate from the stack test instead of the EP 102 VOC emission factor until the average VOC emission factor (3.34 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 102 VOC emission factor (3.34 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 102 VOC emission factor (3.34 lb/hr). Once the factor (3.34 lb/hr) to calculate emissions from this emission point.
 - f. Calculate and record the total emission rate from this emission point (EP 102) over the previous twelve (12) months by summing the monthly totals of the last twelve (12) months.
 - g. Calculate and record the total emission rate from all three (3) emission points (EP 9, EP 102, and EP 119) over the previous twelve (12) months by summing the twelve (12) month totals for the three (3) emission points (EP 9, EP 102, and EP 119)
 - h. If the twelve (12) month rolling total of the VOC emissions exceeds 61.32 tons,

the owner or operator shall immediately begin keeping the following daily records:

- i. Calculate and record the emissions from this emission point (EP 102) over the previous day by multiplying the number of hours emissions were vented through EP 102 over the previous day by the EP 102 VOC emission factor (3.34 lb/hr). If the average VOC emission rate observed during the most recent stack test is higher than the EP 102 VOC emission factor, emissions from EP 102 shall be calculated using the average emission rate from the stack test instead of the EP 102 VOC emission factor until the average VOC emission factor (3.34 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 102 VOC emission factor (3.34 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 102 VOC emission factor (3.34 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 102 VOC emission factor (3.34 lb/hr).
 - i. Calculate and record the total emission rate from this emission point (EP 102) over the previous 365 days by summing the daily totals of the last 365 days.
 - ii. Calculate and record the total emission rate from EPs 9, 102, and 119 over the previous 365 days by summing the 365 day totals for EPs 9, 102, and 119.
- j. Continue daily calculations of VOC emissions until the 365 day total emissions from the EPs 9, 102, and 119 are below 61.32 tons for thirty (30) consecutive days. Once the daily calculations are below 61.32 tons for thirty (30) consecutive days, monthly calculations may resume until such time as the twelve (12) month rolling total exceeds 61.32 tons again.

Authority for Requirement: DNR Construction Permit 95-A-405-P3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 120 Stack Opening, (inches, dia.): 38 Exhaust Flow Rate (scfm): 14,046 Exhaust Temperature (°F): 106 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 95-A-405-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Pollutant – SO_2 Stack Test to be Completed by (date) – 10/26/2024 Test Method - 40 CFR 60, Appendix A, Method 6C Authority for Requirement – 567 IAC 22.108(3)

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🖂 No 🗌
(Construction permit requirements are equivalent to CAM. Additional)	CAM Plan not required)

Emission Point ID Number: 104.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
104 000	Fiber Flash	CE 104.000:	Fiber	92.7 tons/hr	
104.000	Pre-Dryer #3	Entoleter Scrubber	Natural Gas	80 MMBtu/hr	
104.201 Germ Dryer #1	Comm Dravor #1	CE 104.201: Tray	Germ	12.33 tons/hr 00-A-467-	00-A-467-S4
	Tower Scrubber		00-A-407-34		
104.202 G	Germ Dryer #2	CE 104.202: Tray	C	n 12.33 tons/hr	
		Tower Scrubber	Germ	12.55 tons/ nr	

Associated Equipment

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.

<u>Stack Emission Limits</u> Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement:

DNR Construction Permit 00-A-467-S4 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 12.12 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 00-A-467-S4 567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 14.04 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 00-A-467-S4 567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 19.70 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4 Pollutant: Carbon Monoxide (CO) Emission Limit(s): 40.32 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Total HAP Emission Limit(s): 2.80 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

<u>EU 104.000 BACT Emission Limits</u> Pollutant: PM₁₀ Emission Limit(s): 8.92 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Particulate Matter Emission Limit(s): 8.92 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 10.0 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 11.2 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 0.981 tons/yr (applies to VOC's from natural gas combustion only) Authority for Requirement: DNR Construction Permit 00-A-467-S4

Combined Emission Limits from 104.201 & 104.202 Pollutant: PM₁₀ Emission Limit(s): 3.20 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 00-A-467-S4 567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 4.04 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 8.9 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4 Pollutant: Total HAP Emission Limit(s): 1.50 lb/hr Authority for Requirement: DNR Construction Permit 00-A-467-S4

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. This process is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.
- 2. At the end of each day, record the amount (in tons) of corn steeped in Process Group during that day.
- 3. At the end of each day, calculate total amount of corn steep in Process Group over the past 30 days by summing up the daily amount (in tons) steeped for each of the last 30 days.
- 4. At the end of each day, calculate the 30-day average daily steep rate by dividing the total amount (in tons) of corn steeped in Process Group over the past 30 days by the number of days steeping occurred during the past 30 days.
- 5. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture systems (i.e. pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g. presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any variance on these operating limits shall be noted and appropriate action taken.

Fiber Flash Dryer (EU 104.000)

- 6. The burner capacity of the Fiber Flash Dryer is 80.0 million BTU per hour and is limited to firing natural gas only.
- 7. Each day, record the average amount of natural gas consumed in million BTU per hour for every day of operation.
- 8. The Entoleter Scrubber (CE 104.000) shall be operated and maintained according to the manufacturer's specifications.
- 9. The 3-hour average scrubbant⁽²⁾ feed rate shall be maintained at or above the average scrubbant⁽²⁾ feed rate value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 10. Install, operate, and maintain a system to continuously monitor and record the scrubbant⁽²⁾ feed rate to the scrubber associated with Fiber Flash Dryer. This data shall be processed and recorded as a 3-hour block average.
- 11. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 0.5 inches of water column and a maximum of 10.0 inches of water column.
- 12. The owner/operator shall record the pressure drop across the scrubber associated with Fiber Flash Dryer (EU 104.000) once daily.
- 13. The 3-hour average pH of the scrubbant⁽²⁾ shall be maintained at or above the average value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 14. Install, operate, and maintain a system to continuously monitor and record the pH of the

liquid fed to the scrubber associated with Fiber Flash Dryer. This data shall be processed and recorded as a 3-hour block average.

Germ Dryer 1 (EU 104.201)

- 15. The Scrubber (CE 104.201) shall be operated and maintained according to the manufacturer's specifications.
- 16. The 3-hour average scrubbant⁽²⁾ feed rate shall be maintained at or above the average scrubbant⁽²⁾ feed rate value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 17. Install, operate, and maintain a system to continuously monitor and record the scrubbant⁽²⁾ feed rate to the scrubber associated Germ Dryer 1 (EU 104.201). This data shall be processed and recorded as a 3-hour block average.
- 18. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 6 inches of water column and a maximum of 17 inches of water column.
- 19. The owner/operator shall record the pressure drop across the scrubber associated with Germ Dryer 1 (EU 104.201) once daily.

Germ Dryer 2 (EU 104.202)

- 20. The Scrubber (CE 104.202) shall be operated and maintained according to the manufacturer's specifications.
- 21. The 3-hour average scrubbant⁽²⁾ feed rate shall be maintained at or above the average scrubbant⁽²⁾ feed rate value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 22. Install, operate, and maintain a system to continuously monitor and record the scrubbant⁽²⁾ feed rate to the scrubber associated Germ Dryer 2 (EU 104.202). This data shall be processed and recorded as a 3-hour block average.
- 23. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 8 inches of water column and a maximum of 16 inches of water column.
- 24. The owner/operator shall record the pressure drop across the scrubber associated with Germ Dryer 2 (EU 104.202) once daily.

Authority for Requirement: DNR Construction Permit 00-A-467-S4

⁽²⁾ For the purposes of this permit the scrubbant shall be defined as the liquid fed into the scrubbing chamber where the liquid interacts with the exhaust stream. This shall include all liquid whether it is recycled from within the scrubber or is fresh water added to the scrubber.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 225
Stack Opening, (inches, dia.): 109.5
Exhaust Flow Rate (scfm): 33,700
Exhaust Temperature (°F): 160
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 00-A-467-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🗌

(Construction permit requirements are equivalent to CAM. Additional CAM Plan not required)

Emission Point ID Number: 105.013

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.013	Gluten Loadout Conveying I	CE 105.013: Baghouse	Corn	35 tons/hr	83-A-098-S7

Associated Equipment

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-098-S7 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.219 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-098-S7

Pollutant: Particulate Matter Emission Limit(s): 0.129 lb/hr⁽¹⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-098-S7 567 IAC 23.4(7)

⁽¹⁾ Emission limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.48 lb/hr Authority for Requirement: DNR Construction Permit 83-A-098-S7

Pollutant: Total HAP Emission Limit(s): 0.12 lb/hr Authority for Requirement: DNR Construction Permit 83-A-098-S7

Operational Limits & Requirements

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

Process throughput:

1. This process is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.

Reporting & Record keeping:

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

- 1. Record the steeping rate of corn in tons per day every day of operation.
- 2. Maintain a 30-day rolling average of the steeping rate of corn every day of operation
- 3. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the compliance test.
- 4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 83-A-098-S7

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 79 Stack Opening, (inches, dia.): 14 Exhaust Flow Rate (scfm): 3,175 Exhaust Temperature (°F): 120 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 83-A-098-S7

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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.

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

Emission Point ID Number: 105.040*

* This emission point is also associated with EU 105.040 which is included in the Feed Process Group <u>Associated Equipment</u>

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.014	Gluten Loadout Conveying II	CE 105.014: Baghouse	Corn	8 tons/hr	88-A-061-P6

Applicable Requirements

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

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

Emission Point Limits Pollutant: Opacity Emission Limit(s): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 1.51 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6

Pollutant: Particulate Matter Emission Limit(s): 1.51 lb/hr⁽²⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 4.6 lb/hr⁽³⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 ⁽³⁾ Limit is for VOCs that are present as a result of the wet mill process. VOCs that are present as a result of the solvent extraction process are already accounted for in the solvent loss limits that apply to the entire extraction process.

Pollutant: Total HAP Emission Limit(s): 1.15 lb/hr⁽⁴⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 ⁽⁴⁾ Limit is for HAPs that are present as a result of the wet mill process. HAPs that are present as a result of the solvent extraction process are already accounted for in the solvent loss limits that apply to the entire extraction process. EU 105.014 Emission Limits Pollutant: Opacity Emission Limit(s): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.22 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6

Pollutant: Particulate Matter Emission Limit(s): 0.22 lb/hr⁽²⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.4(7)

⁽¹⁾ An exceedance of the indicator opacity of "No Visible Emissions (NVE)" 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).

⁽²⁾ Emission limit is BACT

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The Gluten Loadout Conveyor (EU 105.014) is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis. The owner or operator shall:
 - a. Estimate and record the steeping rate of corn, in tons per day, during each day of operation;
 - b. On a daily basis, calculate and record the rolling 30-day average steeping rate of corn, in tons per day;
- 2. The Baghouse (CE 105.014) should be designed for an air to cloth ratio no greater than 12.
- 3. The Baghouse (CE 105.014) differential pressure drop shall be maintained between 0.1 to 8 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.
 - b. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. If the pressure drop across the baghouse falls outside the range specified in Condition 3 above, the owner or operator shall

investigate the baghouse and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse is not in operation.

- 4. The owner or operator shall conduct a visible emissions observation on EP 105.040 once per calendar week.
 - a. If the owner or operator observes visible emissions from EP 105.040, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the emission unit is not in operation.
- 5. The owner or operator shall maintain the Baghouse (CE 105.014) in accordance with the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a record of all inspections and maintenance conducted on the control equipment. This record shall include, but is not limited to:
 - a. The date any inspection and/or maintenance was performed on the control equipment;
 - b. Any issues identified during the inspection; and,
 - c. Any issues addressed during the maintenance activities.

Authority for Requirement: DNR Construction Permit 88-A-061-P6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 100
Stack Opening, (inches, dia.): 38
Exhaust Flow Rate (scfm): 34,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 88-A-061-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 105.103

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.103	Gluten Flash Dryer Conveying I	CE 105.103A: Baghouse	Gluten	9 tons/hr @ 11% moisture	95-A-406-P5

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 95-A-406-P5 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.240 lb/hr⁽¹⁾, 1.051 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 95-A-406-P5

Pollutant: Particulate Matter (BACT) Emission Limit(s): 0.240 lb/hr⁽¹⁾, 1.051 tons/yr⁽¹⁾, 0.005 gr/dscf⁽¹⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 95-A-406-P5 567 IAC 23.4(7)

⁽¹⁾ Emission limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.69 lb/hr Authority for Requirement: DNR Construction Permit 95-A-406-P5

Pollutant: Total HAP Emission Limit(s): 0.17 lb/hr Authority for Requirement: DNR Construction Permit 95-A-406-P5

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day based on a thirty (30) day rolling average. At the end of each day, the owner or operator shall:
 - a. Record the date,
 - b. Record the amount of corn steeped (in tons) in Process Group for that date,
 - c. Calculate total amount of corn steeped in Process Group over the past thirty (30) days by summing the daily amount steeped (in tons) for each of the last thirty (30) days.
 - d. Calculate the thirty (30) day rolling average steep rate by dividing the total amount of corn steeped (in tons) in Process Group over the past thirty (30) days by the number of days steeping occurred during the past thirty (30) days.
- 2. The baghouse (CE 105.103A) shall be maintained and operated according to the manufacturer's specifications and instructions. The owner or operator shall maintain a record of all maintenance and inspection activities performed on the baghouse (CE 105.103A).

Authority for Requirement: DNR Construction Permit 95-A-406-P5

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 106 Stack Opening, (inches, dia.): 14 Exhaust Flow Rate (scfm): 5,100 Exhaust Temperature (°F): 120 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 95-A-406-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

 $\begin{array}{l} \mbox{Pollutant} - \mbox{PM}_{10}{}^{(2)} \\ \mbox{Stack Test to be Completed by} - 10/26/2024 \\ \mbox{Test Method} - 40 \mbox{ CFR 51, Appendix M, 201A with } 202^{(3)} \\ \mbox{Authority for Requirement} - 567 \mbox{ IAC } 22.108(3) \end{array}$

Pollutant – Particulate Matter⁽²⁾ Stack Test to be Completed by – 10/26/2024 Test Method - 40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202 Authority for Requirement – 567 IAC 22.108(3)

⁽²⁾ The facility may propose a testing protocal to demonstrate compliance with both emission limits during the same test.

⁽³⁾ Or approved alternative

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 🗌

Compliance Assurance Monitoring Plan

CAM Plan for EP 105.103 – Baghouse

I. <u>Background</u>

- A. <u>Emissions Unit</u> Description: Gluten Flash Dryer Conveying I Identification: EU 105.103 Facility: Cargill Eddyville 17540 Monroe-Wapello Rd Eddyville, IA 52553
- B. Applicable Regulation, Emission Limit, and Monitoring Requirements Regulation No.: Permit 95-A-406-P5 Particulate emission limit: 0.240 lb/hr and 1.051 tpy PM/PM₁₀, 0.005

gr/dscf PM

Current Monitoring requirements:

- 1. daily production rates and 30-day rolling average production rates
 - 2. weekly opacity (no visible emissions) readings
 - 3. monthly inspections of baghouse, records of any deficiencies and corrective actions
 - 4. Stack testing for PM and PM_{10} within 2 years of Title V renewal issuance
- C. Control Technology Baghouse
- II. Monitoring Approach

The key elements of the monitoring approach and indicators are presented in the table.

	Indicator #1	Indicator #2
I. Indicator	Differential pressure	Visible Emissions
	across baghouse	
Measurement Approach	Differential pressure	Visible emissions from
	measured across the	baghouse exhaust while
	baghouse by a pressure	EU 105.103 is operating.
	gauge.	
II. Indicator Range	Compare to the pressure drop recorded during the compliance test.	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. Completion

Table A – Monitoring Approach

		of a Method 9 observation if correction action does not return observation to no visible emissions.
III. Performance Criteria		
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Cargill to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded in the daily logs. These forms will be kept a minimum of 5 years.	Results of "no visible emissions" observations are recorded on the visible emissions log. These forms will be kept a minimum of 5 years.

Emission Point ID Number: 105.109

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.109	Gluten Flash Dryer Conveying II	CE 105.109A: Baghouse	Gluten	35 tons/hr	95-A-407-P4

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: PM₁₀ Emission Limit(s): 0.240 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 95-A-407-P4 ⁽¹⁾ Emission limit is BACT

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 95-A-407-P4 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.69 lb/hr Authority for Requirement: DNR Construction Permit 95-A-407-P4

Pollutant: Total HAP Emission Limit(s): 0.17 lb/hr Authority for Requirement: DNR Construction Permit 95-A-407-P4

Limits applicable until baghouse replacement

Pollutant: Opacity Emission Limit(s): 0% Authority for Requirement: DNR Construction Permit 95-A-407-S3 567 IAC 23.3(2)"d"

Limits applicable after baghouse replacement

Pollutant: Opacity Emission Limit(s): 40%⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-407-P4 567 IAC 23.3(2)"d"

⁽²⁾ 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).

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. This process is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis. The owner or operator shall:
 - a. Record the steeping rate of corn in tons per day every day of operation; and
 - b. Maintain a 30-day rolling average of the steeping rate of corn every day of operation.
- 2. The baghouse on this source shall be maintained and operated according to manufacturer's specifications and instructions and should be designed and constructed for an air to cloth ratio no greater than 12. The owner or operator shall:
 - a. Record the pressure drop across the fabric filter weekly, and compare to the pressure drop recorded during the most recent compliance test; and
 - b. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 95-A-407-P4

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 106
Stack Opening, (inches, dia.): 14
Exhaust Flow Rate (scfm): 5,120
Exhaust Temperature (°F): 120
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-407-P4

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🗌

Compliance Assurance Monitoring Plan

CAM Plan for EP 105.109 – Baghouse

I. <u>Background</u>

- A. <u>Emissions Unit</u> Description: Gluten Flash Dryer Conveying II Identification: EU 105.109 Facility: Cargill Eddyville 17540 Monroe-Wapello Rd Eddyville, IA 52553
- B. Applicable Regulation, Emission Limit, and Monitoring Requirements Regulation No.: Permit 95-A-407-P4 Particulate emission limit: 0.240 lb/hr PM₁₀, 0.1 gr/dscf PM Current Monitoring requirements:
 - 1. daily production rates and 30-day rolling average production rates
 - 2. weekly pressure drop readings across the baghouse
 - 3. monthly inspections of baghouse, records of any deficiencies and corrective actions
- C. Control Technology Baghouse
- II. Monitoring Approach

The key elements of the monitoring approach and indicators are presented in the table.

	Indicator #1	Indicator #2
I. Indicator	Differential pressure	Visible Emissions
Maggurament Approach	across baghouse	Visible emissions from
Measurement Approach	Differential pressure measured across the baghouse by a pressure gauge.	Visible emissions from baghouse exhaust while EU 105.109 is operating.
II. Indicator Range	Compare to the pressure drop recorded during the compliance test.	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. Completion of a Method 9 observation if correction action does

Table A – Monitoring Approach

III. Performance Criteria		not return observation to no visible emissions.
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Cargill to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded in the daily logs. These forms will be kept a minimum of 5 years.	Results of "no visible emissions" observations are recorded on the visible emissions log. These forms will be kept a minimum of 5 years.

Emission Point ID Number: 106.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
106.062	Gluten Flash	CE 106.062:	Gluten	35 tons/hr	
106.062	Dryer I	Scrubber	Natural Gas	40 MMBtu/hr	05 4 412 55
106.901	Gluten Flash	CE 106.901:	Gluten	35 tons/hr	95-A-412-S5
100.901	Dryer II	Scrubber	Natural Gas	40 MMBtu/hr	

Associated Equipment

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.

Stack Emission LimitsPollutant: OpacityEmission Limit(s): 40%(1)Authority for Requirement:DNR Construction Permit 95-A-412-S5
567 IAC 23.3(2)"d"

⁽¹⁾ If visible emissions are observed other than at startup, shutdown, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 95-A-412-S5 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 16.74 lb/hr Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 11.52 lb/hr Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Total HAP Emission Limit(s): 3.0 lb/hr Authority for Requirement: DNR Construction Permit 95-A-412-S5 EU 106.062 Emission Limits Pollutant: Opacity Emission Limit(s): 0% Authority for Requirement: DNR Construction Permit 95-A-412-S5 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 5.902 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Particulate Matter Emission Limit(s): 5.902 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 25.0 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 95-A-412-S5 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 3.50 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.491 tons/yr Authority for Requirement: DNR Construction Permit 95-A-412-S5

EU 106.901 Emission Limits Pollutant: Opacity Emission Limit(s): 40% Authority for Requirement: DNR Construction Permit 95-A-412-S5 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 5.902 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Particulate Matter Emission Limit(s): 5.902 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 3.25 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 95-A-412-S5 567 IAC 23.3(3)"e" Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 3.50 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.491 tons/yr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-412-S5

⁽²⁾ Emission limit is BACT

Operational Limits & Reporting/Record keeping Requirements

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

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

The following operating condition shall apply to the operation of Gluten Flash Dryer I and Gluten Dryer II:

- 1. This process is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day with compliance demonstrated on a 30-day rolling average basis.
- 2. At the end of each day, record the amount (in tons) of corn steeped in Process Group during that day.
- 3. At the end of each day, calculate total amount of corn steep in Process Group over the past 30 days by summing up the daily amount (in tons) steeped for each of the last 30 days.
- 4. At the end of each day, calculate the 30-day average daily steep rate by dividing the total amount (in tons) of corn steeped in Process Group over the past 30 days by the number of days steeping occurred during the past 30 days.

The follow operating condition shall apply to the operation of Gluten Dryer I (EU 106.062):

- 5. The heat input of Gluten Flash Dryer I shall be 40.0 mmBTU/hr.
- 6. At the end of each day, record the amount (in million BTU's) of natural gas consumed in Gluten Flash Dryer I during that day.
- 7. At the end of each day, calculate the average hourly heat input to Gluten Flash Dryer I over that day by dividing the daily amount (in million BTU's) of natural gas consumed by the number of hours the unit operated during that day.

The follow operating condition shall apply to the operation of Gluten Dryer II (EU 106.901):

- 8. The heat input of Gluten Flash Dryer II shall be 40.0 mmBTU/hr.
- 9. At the end of each day, record the amount (in million BTU's) of natural gas consumed in Gluten Flash Dryer II during that day.
- 10. At the end of each day, calculate the average hourly heat input to Gluten Flash Dryer II over that day by dividing the daily amount (in million BTU's) of natural gas consumed by the number of hours the unit operated during that day.

The following operating conditions shall apply to the scrubber (CE 106.062) associated with Gluten Flash Dryer I:

- 11. The 3-hour average scrubbant⁽³⁾ feed rate shall be maintained at or above the average scrubbant⁽³⁾ feed rate value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 12. Install, operate, and maintain a system to continuously monitor and record the scrubbant¹ feed rate to the scrubber associated with Gluten Flash Dryer I. This data shall be processed and recorded as a 3-hour block average.
- 13. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 0.5 inches of water column and a maximum of 8.0 inches of water column.
- 14. The owner/operator shall record the pressure drop across the scrubber associated with Gluten Flash Dryer I once daily.
- 15. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 16. Maintain an inspection and maintenance log for the scrubber associated with Gluten Flash Dryer I. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.

The following operating conditions shall apply to the scrubber (CE 106.901) associated with Gluten Flash Dryer II:

- 17. The 3-hour scrubber scrubbant⁽³⁾ feed rate shall be maintained at or above the average scrubbant⁽³⁾ feed rate value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 18. Install, operate, and maintain a system to continuously monitor and record the scrubbant⁽²⁾ feed rate to the scrubber associated with Gluten Flash Dryer II. This data shall be processed and recorded as a 3-hour block average.
- 19. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 0.5 inches of water column and a maximum of 8.0 inches of water column.
- 20. The owner/operator shall record the pressure drop across the scrubber associated with Gluten Flash Dryer II once daily.
- 21. The 3-hour average pH of the scrubbant⁽³⁾ shall be maintained at or above the average value observed during the most recent stack test demonstrating compliance with both the individual unit emission limits and the total stack emission limits.
- 22. Install, operate, and maintain a system to continuously monitor and record the pH of the liquid fed to the scrubber associated with Gluten Flash Dryer II. This data shall be processed and recorded as a 3-hour block average.
- 23. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 24. Maintain an inspection and maintenance log for the scrubber associated with Gluten Flash Dryer II. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.

Authority for Requirement: DNR Construction Permit 95-A-412-S5

⁽³⁾For the purposes of this permit the scrubbant shall be defined as the liquid fed into the scrubbing chamber where the liquid interacts with the exhaust stream. This shall include all liquid whether it is recycled from within the scrubber or is fresh water added to the scrubber.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 225
Stack Opening, (inches, dia.): 70.25
Exhaust Flow Rate (scfm): 55,000
Exhaust Temperature (°F): 160
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-412-S5

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

EU 106.062 Pollutant – SO₂ 1st Stack Test to be Completed by – 10/26/20232nd Stack Test to be Completed between – 4/26/2025 and 4/26/2026Test Method - 40 CFR 60, Appendix A, Method 6C Authority for Requirement – 567 IAC 22.108(3)

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂

 Compliance Assurance Monitoring (CAM) Plan Required?
 Yes 🖄 No 🗔

 (Construction permit requirements are equivalent to CAM. Additional CAM Plan not required)

Emission Point ID Number: 119.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
119 J	Gluten Filter Cloth	CE 110, C	Corn	50 gallons/min	05 A 415 D4
119 K	Gluten Filter Cloth	CE 119: Scrubber	Corn	50 gallons/min	95-A-415-P4

Associated Equipment

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: Sulfur Dioxide (SO₂) Emission Limit(s): 1.4 lb/hr⁽¹⁾, 500 ppmv Authority for Requirement: DNR Construction Permit 95-A-415-P4 567 IAC 23.3(3)"e"

⁽¹⁾ Emission limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 76.65 tons/yr⁽²⁾ Authority for Requirement: DNR Construction Permit 95-A-415-P4 ⁽²⁾Combined emission limit from EP's 9, 102, and 119

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Process Group. The steeping capacity of this process group shall be limited to 10,100 tons of corn per day based on a thirty (30) day rolling average. At the end of each day, the owner or operator shall:
 - a. Record the date,
 - b. Record the amount of corn steeped (in tons) in Process Group for that date,
 - c. Calculate total amount of corn steeped in Process Group over the past thirty (30) days by summing the daily amount steeped (in tons) for each of the last thirty (30) days.
 - d. Calculate the thirty (30) day rolling average steep rate by dividing the total amount of corn steeped (in tons) in Process Group over the past thirty (30) days by the number of days steeping occurred during the past thirty (30) days.

- 2. The pH of the liquid fed into the scrubber (CE 119) shall be a minimum of 5.0 on a 3-hour block average basis. At least once per day, the owner or operator shall record a 3-hour block average of the pH of the liquid fed into the scrubber (CE 119).
- 3. The pressure drop across the scrubber (CE 119) shall be a minimum of 5.0 inches of water column (in. H₂O) on a 3-hour block average basis. At least once per day, the owner or operator shall record a 3-hour block average of the pH of the liquid fed into the scrubber (CE 119).
- 4. The scrubbant feed rate to the scrubber (CE 119) shall be a minimum of 70 gallons per minute (3-hr block average). The owner or operator shall:
 - a. Install and maintain all equipment necessary to continuously monitor the scrubbant feed rate to the scrubber (CE 119) and
 - b. Record the 3-hr block average liquid feed rate to the scrubber (CE 119).

NOTE: For the purposes of this permit, "scrubbant" shall be defined as the liquid fed into the scrubbing chamber where the liquid interacts with the exhaust stream. This shall include all liquid whether it is recycled from within the scrubber (CE 119) or is fresh water added to the scrubber (CE 119).

- 5. The owner or operator shall maintain and operate the scrubber (CE 119) according to the manufacturer's specifications and instructions.
- 6. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.
- 7. In order to demonstrate compliance with the 76.65 tons of VOC/yr limit in Emission Limits, the owner or operator shall:
 - a. Record the date,
 - b. Record the number of hours the emissions were vented to this emission point (EP 119) for that date,
 - c. Track the monthly VOC emissions by:
 - i. Recording the total number of hours the emissions were vented to this emission point (EP 119) during the previous month.
 - ii. Calculate and record the emissions from this emission point (EP 119) over the previous month by multiplying the number of hours emissions were vented through EP 119 over the previous month by the EP 119 VOC emission factor (1.88 lb/hr). If the average VOC emission rate observed during the most recent stack test is higher than the EP 119 VOC emission factor, emissions from EP 9 shall be calculated using the average emission rate from the stack test instead of the EP 119 VOC emission factor until the average VOC emission rate observed in a subsequent stack test is below the EP 119 VOC emission factor (1.88 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 119 VOC emission factor, the owner or operator may use the EP 119 VOC emission factor (1.88 lb/hr) to calculate emissions from this emission point.
 - Calculate and record the total emission rate from this emission point (EP 119) over the previous twelve (12) months by summing the monthly totals of the last twelve (12) months.

- iv. Calculate and record the total emission rate from all three (3) emission points (EP 9, EP 102, and EP 119) over the previous twelve (12) months by summing the twelve (12) month totals for the three (3) emission points (EP 9, EP 102, and EP 119).
- d. If the twelve (12) month rolling total of the VOC emissions exceeds 61.32 tons, the owner or operator shall immediately begin keeping the following daily records:
 - i. Calculate and record the emissions from this emission point (EP 119) over the previous day by multiplying the number of hours emissions were vented through EP 119 over the previous day by the EP 119 VOC emission factor (1.88 lb/hr). If the average VOC emission rate observed during the most recent stack test is higher than the EP 119 VOC emission factor, emissions from EP 9 shall be calculated using the average emission rate from the stack test instead of the EP 119 VOC emission factor until the average VOC emission rate observed in a subsequent stack test is below the EP 119 VOC emission factor (1.88 lb/hr). Once the average VOC emission rate observed during the stack test is below the EP 119 VOC emission factor, the owner or operator may use the EP 119 VOC emission factor (1.88 lb/hr) to calculate emissions from this emission point.
 - Calculate and record the total emission rate from this emission point (EP 119) over the previous 365 days by summing the daily totals of the last 365 days.
 - iii. Calculate and record the total emission rate from EPs 9, 102, and 119 over the previous 365 days by summing the 365 day totals for EPs 9, 102, and 119.
- e. Continue daily calculations of VOC emissions until the 365 day total emissions from the EPs 9, 102, and 119 is below 61.32 tons for thirty (30) consecutive days. Once the daily calculations are below 61.32 tons for thirty (30) consecutive days, monthly calculations may resume until such time as the twelve (12) month rolling total exceeds 61.32 tons again.

Authority for Requirement: DNR Construction Permit 95-A-415-P4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 120
Stack Opening, (inches, dia.): 22
Exhaust Flow Rate (scfm): 8,000
Exhaust Temperature (°F): 106
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-415-P4

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 121

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
121	Process Power Backup Generator	Diesel Fuel	235 bhp	96-A-1039

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40% Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.935 lb/hr Authority for Requirement: DNR Construction Permit 96-A-1039

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

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 13.2 lb/hr Authority for Requirement: DNR Construction Permit 96-A-1039

Operational Limits & Requirements

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

Hours of operation:

1. The Process Power Backup Generator is to be operated no more than 500 hours per 12 month rolling period.

Process throughput:

- 1. Fuel usage in the Process Power Backup Generator is limited to diesel fuel which contains a sulfur content of 0.05% by weight or less.
- 2. The owner or operator is required to operate the Process Power Backup Generator within the operating limits specified by its manufacturer.

Reporting & Record keeping:

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

- 1. Record the fuel supplier's analysis of diesel fuel used in the Process Power Backup Generatorwhich shows weight percentage of sulfur in the diesel fuel.
- 2. Record the time periods when the Process Power Backup Generator is operating.
- 3. Record the total hours of operation for the Process Power Backup Generator per 12 month rolling period.
- 4. Maintain a log of maintenance and repairs performed on the Process Power Backup Generator.

Authority for Requirement: DNR Construction Permit 96-A-1039

NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this compression ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

- 1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
- 2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
- 3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- 5. Install a non-resettable hour meter if one is not already installed.
- 6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

- 1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
- 2. There is no time limit on the use of emergency stationary RICE in emergency situations.
- 3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
- 4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

- 1. Keep records of the maintenance conducted on the stationary RICE.
- 2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

- 1. An initial notification is not required per 40 CFR 63.6645(a)(5).
- 2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

Authority for Requirement: 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): 12
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (acfm): 2,220
Exhaust Temperature (°F): 925
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 96-A-1039

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 189.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
189.100	Seven (7) Gluten Vacuum Pumps	Corn	30,000 gal/hr	15-A-499-S2

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 15-A-499-S2 567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 15-A-499-S2 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 6.5 lb/hr Authority for Requirement: DNR Construction Permit 15-A-499-S2

Pollutant: Total HAP Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 15-A-499-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 76
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 2,400
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-499-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 1.000

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
	Pre-Dryer 1	CE 1.052A: Multiclone	Wet Feed, Natural Gas	34.7 ton/hr @ 65% moisture, 60 MMBtu/hr	
1.052	Pre-Dryer 2	CE 1.052.3: Ultra- Low NO _x Burner CE 1.052B: Multiclone	Wet Feed, Natural Gas	56.3 tons/hr @ 65% moisture, 75 MMBtu/hr	90-A-085-S6

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement:

Authority for Requirement: DNR Construction Permit 90-A-085-S6 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 10% 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: PM_{2.5} Emission Limit(s): 98.0 lb/hr, 429.0 tons/yr Authority for Requirement: DNR Construction Permit 90-A-085-S6 Administrative Consent Order No. 2020-AQ-11

Pollutant: PM₁₀ Emission Limit(s): 98.0 lb/hr, 429.0 tons/yr Authority for Requirement: DNR Construction Permit 90-A-085-S6 Administrative Consent Order No. 2020-AQ-11

Pollutant: Particulate Matter Emission Limit(s): 98.0 lb/hr, 429.0 tons/yr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 90-A-085-S6 Administrative Consent Order No. 2020-AQ-11 567 IAC 23.4(7) Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 40.0 lb/hr, 500 ppmv Authority for Requirement: DNR Construction Permit 90-A-085-S6 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 13.5 lb/hr Authority for Requirement: DNR Construction Permit 90-A-085-S6

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 110.8 lb/hr Authority for Requirement: DNR Construction Permit 90-A-085-S6

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 11.4 lb/hr Authority for Requirement: DNR Construction Permit 90-A-085-S6

Pollutant: Total HAP Emission Limit(s): 6.50 lb/hr Authority for Requirement: DNR Construction Permit 90-A-085-S6

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. The Pre-Dryers covered by this permit shall only combust natural gas.
- 2. The owner or operator shall operate and maintain the emission units (i.e. Pre-Dryers and associated burners) in accordance with the recommendations of the manufacturer. The owner or operator shall maintain records on the maintenance performed on these emission units (i.e. Pre-Dryers and associated burners).
- 3. The owner or operator shall operate Pre-Dryer 1 and Pre-Dryer 2 with dampers positioned no higher than 45% for Pre-Dryer 1 and 67% for Pre-Dryer 2. The owner or operator shall operate Pre-Dryer 1 and Pre-Dryer 2 with dampers positioned higher than 35% for Pre-Dryer 1 and 50% for Pre-Dryer 2. The owner or operator shall:
 - a. Monitor the Pre-Dryer 1 and Pre-Dryer 2 damper positions on a continuous basis;
 - b. On an hourly basis, calculate and record the 3-hour block average Pre-Dryer 1 and Pre-Dryer 2 damper positions; and
 - c. On a weekly basis, visually inspect the Pre-Dryer 1 and Pre-Dryer 2 damper positions. The owner or operator shall note and address any discrepancies between the actual damper positions and the damper positions being monitored in the control system.

- 4. The screw position for the Pre-Dryer 1 recycling shall be no higher than the screw speed output setpoint reported in the last stack test that demonstrated compliance with the PM, PM₁₀, and PM_{2.5} emission limits. The gate position for the Pre-Dryer 2 recycling shall be no higher than the gate position reported in the last stack test that demonstrated compliance with the PM, PM₁₀, and PM_{2.5} emission limits. On a weekly basis, the owner or operator shall monitor the Pre-Dryer 1 recycling screw speed output setpoint and the Pre-Dryer 2 recycling gate position. The owner or operator shall record the Pre-Dryer 1 recycling screw speed output setpoint and the Pre-Dryer 2 recycling gate position.
- 5. The owner or operator shall maintain Multiclone (CE-1.052A) and Multiclone (CE-1.052B) according to the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a log of all maintenance and inspection activities performed on Multiclone (CE-1.052A) and Multiclone (CE-1.052B). This log shall include, but is not necessarily limited to:
 - a. The date and time any inspection and/or maintenance was performed on Multiclone (CE-1.052A) and Multiclone (CE-1.052B);
 - b. Any issues identified during the inspection and the date each issue was resolved;
 - c. Any issues addressed during the maintenance activities and the date each issue was resolved; and
 - d. Identification of the staff member performing the maintenance or inspection.
- 6. Per the Administrative Consent Order between the Iowa DNR and Cargill (Administrative Consent Order No. 2020-AQ-11; V. Order Paragraph 2), the owner or operator shall:
 - a. Maintain records of the daily and monthly production level averages from Pre-Dryer 1 and Pre-Dryer 2;
 - b. On a monthly basis, calculate PM, PM₁₀, and PM_{2.5} emissions. Monthly emissions shall be calculated by converting the average pound per hour PM, PM₁₀, and PM_{2.5} emission rate during the most recent DNR-accepted compliance test to a pound per ton of feed dried emission rate and then multiplying the pound per ton of feed dried rate by the amount of dried feed during the previous month. The pound per hour emission rate shall be converted to the pound per ton of feed dried emission rate by dividing the pound per hour emission rate by the average operating rate in tons of feed dried per hour during the test; And
 - c. On a monthly basis, calculate and record the total PM, PM₁₀, and PM_{2.5} emissions, in tons, for the previous 12-month period.

Authority for Requirement: DNR Construction Permit 90-A-085-S6

Administrative Consent Order No. 2020-AQ-11

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 225
Stack Opening, (inches, dia.): 106
Exhaust Flow Rate (scfm): 200,000
Exhaust Temperature (°F): 150
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-085-S6

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 – PM_{2.5} Stack Testing Frequency – Once every two (2) years^{(1), (2), (3), (4)} Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement – DNR Construction Permit 90-A-085-S6

Pollutant – PM₁₀ Stack Testing Frequency – Once every two (2) years^{(1), (2), (3), (4)} Test Method - 40 CFR 51, Appendix M, 201A with 202 Authority for Requirement – DNR Construction Permit 90-A-085-S6

Pollutant – PM Stack Testing Frequency – Once every two (2) years^{(1), (2), (3), (4)} Test Method - 40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202 Authority for Requirement – DNR Construction Permit 90-A-085-S6

⁽¹⁾ The stack tests shall be done on EP 1. The owner or operator shall conduct the following compliance tests every 2 years:

- Damper position at 45% for Pre-Dryer 1 and 67% for Pre-Dryer 2 with recycle on.
- Damper position at 45% for Pre-Dryer 1 and 67% for Pre-Dryer 2 with recycle off.

⁽²⁾ During the stack tests, the owner or operator shall track the following operating parameters:

- Production rate
- Damper positions of Pre-Dryer 1 and Pre-Dryer 2
- Screw position of Pre-Dryer 1 recycling
- Gate position of Pre-Dryer 2 recycling
- Fiber recovery rate

⁽³⁾ Testing shall be done with at least 18 months between stack tests. After 3 consecutive tests demonstrating compliance with the applicable emission limits, the owner or operator may request a reduction in the testing frequency subject to approval from the Iowa DNR.

⁽⁴⁾ Last test completed 8/17/2021

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? (Required for 1.052A and 1.052B)	Yes 🛛 No 🗌

Compliance Assurance Monitoring Plan

CAM Plan for EP 1.000 - Multiclones

I. <u>Background</u>

A. <u>Emissions Unit</u> Description: Pre-Dryers 1 and 2 Identification: EU 1.052 Facility: Cargill Eddyville 17540 Monroe-Wapello Rd Eddyville, IA 52553

B. Applicable Regulation, Emission Limit, and Monitoring Requirements Regulation No.: 90-A-085-S6 Particulate emission limit: 98.0 lb/hr and 429.0 tpy PM/PM₁₀/PM_{2.5}, 0.1 gr/dscf PM Current Monitoring requirements:

- 1. daily and monthly production rates
- 2. Pre-Dryer 1 and Pre-Dryer 2 damper position continuous monitoring and weekly inspections
- 3. Pre-Dryer 1 recycling screw speed weekly monitoring
- 4. Pre-Dryer 2 recycling gate position weekly monitoring
- 5. Inspections of the multiclones, records of any deficiencies and corrective actions
- 6. PM/PM₁₀/PM_{2.5} stack testing every 2 years
- C. Control Technology Multiclones
- II. Monitoring Approach

The key elements of the monitoring approach and indicators are presented in the table.

Table A – Monitoring Approach

	Indicator #1	Indicator #2
I. Indicator	Multiclone Level	No visible emission
		observations of EP1 stack
Measurement Approach	Multiclone Level (indicator)	No visible emission
II. Indicator Range	High level alarm	Visible emissions from
		Pre-Dryer exhaust while
		EU 1.052 is operating.
III. Performance Criteria		An excursion is defined as
		any visible emission
		occurring. Excursions
		trigger an inspection,
		corrective action, and a

A. Data Representativeness	Level alarm data monitored continuously. If high level alarm, it requires action to clear blockage.	recordkeeping requirement. Completion of a Method 9 observation if correction action does not return observation to no visible emissions. Visible emissions observations are made at the emission point and on the external multiclones, system ductwork and
B. Verification of Operational Status	The level indicator devices will be calibrated, operated, and maintained according to the manufacturer's specifications.	associated components. Not applicable.
C. QA/QC Practices and Criteria	The level indicator devices will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Cargill to detect visible emissions.
D. Monitoring Frequency	The Multiclone level alarm is monitored continuously (every 15 minutes).	Daily when Pre-Dryers are in operation.
E. Data Collection Procedures	Continuous monitoring of level indicators will be recorded. A daily report will indicate if any missing continuous data. These forms will be kept a minimum of 5 years.	Daily reports will include daily observations. These records will be kept a minimum of 5 years.

Emission Point ID Number: 18.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
18.1	12 Refiners			1,900 gal/minute	
10.11	12 100111015	CE 18.000:		(combined)	
18.2	Conveyors	Packed Bed	Fiber, Corn, &	25,550 ft ³ /minute	83-A-103-S3
10.2	Conveyors	Scrubber	Fiber Slurry	(combined)	05-11-105-55
18.3	Feedhouse Tanks	Scrubber		204,087 gallons	
18.5	reedhouse ranks			(combined)	

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement:

Authority for Requirement: DNR Construction Permit 83-A-103-S3 567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-103-S3 567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 0.87 lb/hr, 3.80 tons/yr, 500 ppmv Authority for Requirement: DNR Construction Permit 83-A-103-S3 567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 32.4 lb/hr Authority for Requirement: DNR Construction Permit 83-A-103-S3

Pollutant: Total HAP Emission Limit(s): 1.0 lb/hr Authority for Requirement: DNR Construction Permit 83-A-103-S3

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The 3-hour average scrubber liquid feed rate shall be maintained at or above the 38 gallons per minute.
- 2. Install, operate, and maintain a system to continuously monitor and record the liquid feed rate to the scrubber associated with Feedhouse Aspiration. This data shall be processed and recorded as a 3-hour block average.
- 3. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 0.5 inches of water column and a maximum of 8.0 inches of water column.
- 4. The owner/operator shall record the pressure drop across the scrubber associated with Feedhouse Aspiration once daily.
- 5. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 6. Maintain an inspection and maintenance log for the scrubber associated with Feedhouse Aspiration. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.

Authority for Requirement: DNR Construction Permit 83-A-103-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 64 Stack Opening, (inches, dia.): 14.6 Exhaust Flow Rate (scfm): 8,000 Exhaust Temperature (°F): 70 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 83-A-103-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

25.1(7)

Pollutant - VOC 1st Stack Test to be Completed by – 10/26/2023 2nd Stack Test to be Completed by – 4/26/2026* Test Method - 40 CFR 63, Appendix A, Method 25A Authority for Requirement – 567 IAC 22.108(3) * Minumum of 12 months between test dates

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🖂 No 🗌
(Construction permit requirements are equivalent to CAM. Additional C	CAM Plan not required)

Emission Point ID Number: 105.019 (Pre-Replacement)

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.019	Rail Loadout	CE 105.019: Baghouse	Feed	120 tons/hr	83-A-104-P5

Associated Equipment

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-104-P5 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.186 lb/hr⁽¹⁾, 0.815 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-104-P5

Pollutant: Particulate Matter Emission Limit(s): 0.186 lb/hr⁽¹⁾, 0.815 tons/yr⁽¹⁾, 0.005 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-104-P5

⁽¹⁾ Emission Limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.59 lb/hr Authority for Requirement: DNR Construction Permit 83-A-104-P5

Pollutant: Total HAP Emission Limit(s): 0.15 lb/hr Authority for Requirement: DNR Construction Permit 83-A-104-P5

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Feed Group. The loadout throughput of this process shall not exceed 950 tons of feed per day on a thirty (30) day rolling average. For each day of operation, the owner or operator shall:
 - a. Record the date,
 - b. Record the loadout rate of feed (in tons/day), and
 - c. Maintain the thirty (30) day rolling average of the loadout of feed (in tons/day).
- 2. The owner or operator shall maintain the baghouse (CE 105.019) according to the manufacturer's specifications and instructions.
- 3. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 83-A-104-P5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 60 Stack Opening, (inches, dia.): 14 Exhaust Flow Rate (scfm): 4,350 Exhaust Temperature (°F): 90 Discharge Style: Vertical Unobstructed Authority for Requirement: DNR Construction Permit 83-A-104-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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.

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

Emission Point ID Number: 105.019 (Post-Replacement)

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.019	Rail Loadout	CE 105.019A: Baghouse	Feed	120 tons/hr	83-A-104-P6

Associated Equipment

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-104-P6 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.186 lb/hr⁽¹⁾, 0.815 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 83-A-104-P6

Pollutant: Particulate Matter Emission Limit(s): 0.186 lb/hr⁽¹⁾, 0.815 tons/yr⁽¹⁾, 0.005 gr/dscf Authority for Requirement: DNR Construction Permit 83-A-104-P6

⁽¹⁾ Emission Limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.59 lb/hr Authority for Requirement: DNR Construction Permit 83-A-104-P6

Pollutant: Total HAP Emission Limit(s): 0.15 lb/hr Authority for Requirement: DNR Construction Permit 83-A-104-P6

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The process permitted under this permit is a member of the Feed Group. The loadout throughput of this process shall not exceed 950 tons of feed per day on a thirty (30) day rolling average. For each day of operation, the owner or operator shall:
 - a. Record the date,
 - b. Record the loadout rate of feed (in tons/day), and
 - c. Maintain the thirty (30) day rolling average of the loadout of feed (in tons/day).
- 2. The owner or operator shall maintain the baghouse (CE 105.019A) according to the manufacturer's specifications and instructions.
- 3. The owner or operator shall perform weekly visible emissions observations. If visible emissions are observed, the owner or operator shall take necessary corrective actions.
 - a. Record the result of the weekly visible emissions observations.
 - b. Record any corrective actions taken as a result of visible emissions.
- 4. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion. Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 83-A-104-P6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 60
Stack Opening, (inches, dia.): 14
Exhaust Flow Rate (scfm): 4,350
Exhaust Temperature (°F): 90
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 83-A-104-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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.

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

Emission Point ID Number: 105.040*

* This emission point is alos associated with EU 105.014 which is included in the Process Group <u>Associated Equipment</u>

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.040	Feed Loadout to Truck	CE 105.040: Baghouse	Feed	72 tons/hr	88-A-061-P6

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 1.51 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6

Pollutant: Particulate Matter Emission Limit(s): 1.51 lb/hr⁽²⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 4.6 lb/hr⁽³⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 ⁽³⁾ Limit is for VOCs that are present as a result of the wet mill process. VOCs that are present as a result of the solvent extraction process are already accounted for in the solvent loss limits that apply to the entire extraction process.

Pollutant: Total HAP Emission Limit(s): 1.15 lb/hr⁽⁴⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6 ⁽⁴⁾Limit is for HAPs that are present as a result of the wet mill process. HAPs that are present as a result of the solvent extraction process are already accounted for in the solvent loss limits that apply to the entire extraction process.

105.040Pollutant: OpacityEmission Limit(s): 0%(1)Authority for Requirement:DNR Construction Permit 88-A-061-P6567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 1.29 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 88-A-061-P6

Pollutant: Particulate Matter Emission Limit(s): 1.29 lb/hr⁽²⁾, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 88-A-061-P6 567 IAC 23.4(7)

⁽¹⁾ An exceedance of the indicator opacity of "No Visible Emissions (NVE)" 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).

⁽²⁾ Emission limit is BACT

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The Feed Loadout to Truck (EU 105.040) is a member of the Feed Group. The loadout capacity of this process shall be limited to 1,500 tons of feed per day with compliance demonstrated on a 30-day rolling average basis. The owner or operator shall:
 - a. Estimate and record the feed loadout rate, in tons per day, during each day of operation; and
 - b. On a daily basis, calculate and record the rolling 30-day average feed loadout rate, in tons per day.
- 2. The Baghouse (CE 105.040) should be designed for an air to cloth ratio no greater than 12.
- 3. The Baghouse (CE 105.040) differential pressure drop shall be maintained between 0.1 to 8 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.
 - b. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. If the pressure drop across the baghouse falls outside the range specified in Condition 3 above, the owner or operator shall investigate the baghouse and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse is not in operation.

- 4. The owner or operator shall conduct a visible emissions observation on EP 105.040 once per calendar week.
 - a. If the owner or operator observes visible emissions from EP 105.040, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the emission unit is not in operation.
- 5. The owner or operator shall maintain the Baghouse (CE 105.040) in accordance with the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a record of all inspections and maintenance conducted on the control equipment. This record shall include, but is not limited to:
 - a. The date any inspection and/or maintenance was performed on the control equipment;
 - b. Any issues identified during the inspection; and,
 - c. Any issues addressed during the maintenance activities.

Authority for Requirement: DNR Construction Permit 88-A-061-P6

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 100
Stack Opening, (inches, dia.): 38
Exhaust Flow Rate (scfm): 34,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 88-A-061-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 105.290

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
105.290	Corn Germ Meal Silo	CE 105.290: Baghouse	Corn Germ Meal	9,300 ft ³	15-A-198

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 15-A-198 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.42 lb/hr Authority for Requirement: DNR Construction Permit 15-A-198

Pollutant: Particulate Matter Emission Limit(s): 0.42 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 15-A-198 567 IAC 23.4(7)

Operational Limits & Requirements

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

Control equipment parameters:

1. The baghouse associated with this emission point shall be operated and maintained according to manufacturer's specifications.

Reporting & Record keeping:

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

- 1. The owner/operator shall maintain a log of all maintenance and inspection activities performed on the baghouse associated with this emission point. This log shall include, but shall not be limited to:
 - a. The date and time each inspection activity was initiated;
 - b. Any issues that were identified during each inspection;
 - c. The date and time any maintenance was performed on the baghouse;
 - d. A description of the maintenance that was performed.

Authority for Requirement: DNR Construction Permit 15-A-198

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 132
Stack Opening, (inches, dia.): 12
Exhaust Flow Rate (scfm): 4,900
Exhaust Temperature (°F): 80
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-198

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 137.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
137.000	Sweet Feed SEM	CE 137.000:	SEM-SBT	30.4 tons/hr	00-A-468-S3
	Silo Receiver	Baghouse			

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 00-A-468-S3 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of "no visible emission" 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: PM₁₀ Emission Limit(s): 0.31 lb/hr Authority for Requirement: DNR Construction Permit 00-A-468-S3

Pollutant: Particulate Matter Emission Limit(s): 0.31 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 00-A-468-S3 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 8.51 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 00-A-468-S3

Pollutant: Single HAP Emission Limit(s): 3.47 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 00-A-468-S3

Pollutant: Total HAP Emission Limit(s): 3.54 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 00-A-468-S3

⁽²⁾ Limit is for emissions that are present as a result of the wet mill process. Emissions that are present as a result of the solvent extraction process are already accounted for in the solvent loss limits that apply to the entire extraction process.

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The owner or operator shall maintain and operate the baghouse (CE 137) according to manufacturer's specifications and instructions.
 - a. The owner or operator shall maintain a log detailing control device inspections and maintenance activities.

Authority for Requirement: DNR Construction Permit 00-A-468-S3

National Emission Standards for Hazardous Air Pollutants (NESHAP):

This facility (plant number 68-09-001) is subject to Subparts A (General Provisions; 40 CFR §63.1 – 40 CFR §63.15) and GGGG (*National Emission Standards for Hazardous Air Pollutants:* Solvent Extraction for Vegetable Oil Production; 40 CFR §63.2830 – 40 CFR §63.2872) of the National Emission Standards for Hazardous Air Pollutants (NESHAP). There are no specific requirements from NESHAP Subpart GGGG for EU 137.000.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 90
Stack Opening, (inches, dia.): 13
Exhaust Flow Rate (scfm): 7,000
Exhaust Temperature (°F): 50
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 00-A-468-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 140.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
140.000	Sweet Feed Rail Loadout	Sweet Feed	147 tons/hr	01-A-1162-S2

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DN

DNR Construction Permit 01-A-1162-S2 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 10% 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: PM₁₀ Emission Limit(s): 0.51 lb/hr Authority for Requirement: DNR Construction Permit 01-A-1162-S2

Pollutant: Particulate Matter Emission Limit(s): 0.51 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 01-A-1162-S2 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 5.38 lb/hr Authority for Requirement: DNR Construction Permit 01-A-1162-S2

Pollutant: Total HAP Emission Limit(s): 1.34 lb/hr Authority for Requirement: DNR Construction Permit 01-A-1162-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 68
Stack Opening, (inches): 38 x 48
Exhaust Flow Rate (scfm): 20,000
Exhaust Temperature (°F): 65
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 01-A-1162-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 210.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
210.134	Fiber Pneumatic	CE 210.134:	Fiber 55,000 lb/h	55 000 lb/br	07-A-1282-S2
210.134	Conveyor 1	Baghouse		55,000 10/11	
210.135	Fiber Pneumatic	CE 210.135:	T'l	55,000 lb/hr	
210.155	Conveyor 2	Baghouse	Fiber		
210 126	CC/SEM Pneumatic	CE 210.136:	COUCEN	75 000 11 /1	
210.136	Conveyor	Baghouse	CC/SEM	75,000 lb/hr	

Associated Equipment

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.

Total Emissions from EP 210.000 Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 07-A-1282-S2 567 IAC 233(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 1.70 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Pollutant: Particulate Matter Emission Limit(s): 1.70 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 07-A-1282-S2 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC's) Emission Limit(s): 2.10 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Pollutant: Total HAP Emission Limit(s): 0.52 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2 <u>Fiber Pneumatic Conveyor 1 (EU 210.134)</u> Pollutant: PM₁₀ Emission Limit(s): 0.47 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Pollutant: Particulate Matter Emission Limit(s): 0.47 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

<u>Fiber Pneumatice Conveyor 2 (EU 210.135)</u> Pollutant: PM₁₀ Emission Limit(s): 0.47 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Pollutant: Particulate Matter Emission Limit(s): 0.47 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

<u>CC/SEM Pneumatic Conveyor (EU 210.136)</u> Pollutant: PM₁₀ Emission Limit(s): 0.76 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Pollutant: Particulate Matter Emission Limit(s): 0.76 lb/hr Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. Each baghouse associated with this emission point shall be operated and maintained according to the manufacturer's specifications.
- 2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture systems (i.e. pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g. presence of holes in the ductwork, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 07-A-1282-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 82
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 7,925
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 07-A-1282-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 67.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
67.000	Mineral Oil Scrubber	CE 67.000: Scrubber	Corn Germ	62.5 tons/hr	91-A-114-S3

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 492.750 tons/yr^{(1),(3)}, 2,700 lb/day^{(1), (2), (3)}, 0.365 gal/ton Authority for Requirement: DNR Construction Permit 91-A-114-S3 ⁽¹⁾ Limit for all solvent loss plant-wide ⁽²⁾ Compliance is demonstrated on a 365-day rolling average. ⁽³⁾ Emission limit is BACT ⁽⁴⁾ (gal/ton limit only) Pollutant: Total HAP Emission Limit(s): Compliance Ratio= $\frac{fx \text{ Actual Sovent Loss}}{0.64 \times \sum_{i=1}^{n} ((\text{Oilseed})_i \times (\text{SLF})_i)}$ Where: Compliance Ratio = the ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors in Table 1 of §63.2840, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the (63.2850(c)(2) or (d)(2)) initial startup period or the (63.2850(c)(2))malfunction period applies, are excluded from this calculation. Equation 2 of §63.2840 is used to calculate this value. If the value is less than or equal to 1.00, the source is in compliance. If the value is greater than 1.00, the source is deviating from compliance. f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in 40 CFR §63.2854, dimensionless. Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in 40 CFR §63.2853. *Oilseed* = Tons of each oilseed type "i" processed during the previous 12 operating months, as shown in 40 CFR §63.2855. SLF = The corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of 40 CFR §63.2840 for existing corn germ, wet milling facilities of 0.4 gal/ton Authority for Requirement: DNR Construction Permit 91-A-114-S3 567 IAC 23.1(4) "cg" 40 CFR 63 Subpart GGGG

Operational Limits & Requirements

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

Process throughput:

- 1. This process is a member of the Germ Group. The production capacity of this group shall be limited to 1500 tons of germ per day with compliance demonstrated on a 30-day rolling average basis.
- 2. Solvent loss from the germ plant shall not exceed 2700 pounds per day with compliance demonstrated on a 365-day rolling average basis.
- 3. The VOC solvent loss rate from Plant Number, 68-09-001, shall not exceed 0.365 gallons of solvent per ton of corn germ on a 12-month rolling average as required per the per the consent decree entered into between the Unites States and Cargill [Civil Action 05-2037, United States District Court for the District of Minnesota (September 1, 2005)].
- 4. The permittee shall develop and implement a plan for demonstrating compliance in according with the provisions in 40 CFR 63.2851.
- 5. The permittee shall maintain all of the necessary records to demonstrate compliance with NESHAP Subpart GGGG in according with the provisions in 40 CFR 63.2862.

Control equipment parameters:

1. The scrubber shall be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

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

- 1. Estimate and record the production rate of germ processed in tons per day every day of operation.
- 2. Maintain a 30-day rolling average of the production rate of germ processed every day of operation.
- 3. Estimate and record the daily solvent loss in pounds per day as determined from material balances every day of operation.
- 4. Maintain a 365-day rolling average of the solvent loss every day of operation.
- 5. Retain purchase receipts of solvent to support solvent loss from this process.
- 6. Perform monthly operational status inspections of process and control equipment that is important the performance of the capture system. This inspection shall include observation of the physical appearance of the equipment (e.g. presence of holes in ductwork or hoods, flow constructions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
- 7. The permittee shall follow the reporting requirements of 40 CFR 63.2861.
- 8. Record monthly, the amount of solvent used in the extraction process, in gallons. Calculate and record 12-month rolling totals. Solvent loss is calculated according to 40 CFR 63.2853.
- 9. Determine compliance with the solvent loss factor according to 40 CFR 63.2840 and 40 CFR 63.2850.

Authority for Requirement: DNR Construction Permit 91-A-114-S3 567 IAC 23.1(4) "cg" 40 CFR 63 Subpart GGGG

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 38
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 62
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-A-114-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Numbers: 68.000 & 234.000

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
68.000	68.00	Building Aspiration	Germ	62.5 tons/hr	03-A-004-P3
234.000					17-A-162-P1

Associated Equipment

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: Volatile Organic Compounds (VOC) Emission Limit(s): 492.750 tons/yr^{(1),(3)}, 2,700 lb/day^{(1), (2), (3)}, 0.365 gal/ton Authority for Requirement: DNR Construction Permits 03-A-004-P3 & 17-A-162-P1 ⁽¹⁾ Limit for all solvent loss plant-wide

⁽²⁾ Compliance is demonstrated on a 365-day rolling average.

⁽³⁾ Emission limit is BACT

⁽⁴⁾ gal/ton limit only

Pollutant: Total HAP

Emission Limit(s): Compliance Ratio= $\frac{f \times Actual Sovent Loss}{0.64 \times \sum_{i=1}^{n} ((Oilseed)_i \times (SLF)_i)} \le 1.00$

Where:

Compliance Ratio = the ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors in Table 1 of §63.2840, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the §63.2850(c)(2) or (d)(2) initial startup period or the §63.2850(e)(2) malfunction period applies, are excluded from this calculation. Equation 2 of §63.2840 is used to calculate this value. If the value is less than or equal to 1.00, the source is in compliance.

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in 40 CFR §63.2854, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in 40 CFR §63.2853.

Oilseed = Tons of each oilseed type "i" processed during the previous 12 operating months, as shown in 40 CFR §63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of 40 CFR §63.2840 for existing corn germ, wet milling facilities of 0.4 gal/ton

Authority for Requirement: DNR Construction Permits 03-A-004-P3 & 17-A-162-P1 567 IAC 23.1(4) "cg" 40 CFR 63 Subpart GGGG

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The Building Aspiration Equipment Leaks (EU 68) is part of Germ Group. This group shall not process more than 1,500 tons of germ per day based on a thirty (30) day rolling average. For each day of operation, the owner or operator shall:
 - a. Track and record the amount of germ processed (in tons/day).
 - b. Maintain a thirty (30) day rolling average of the amount of germ processed.
 - c. Track and record the daily solvent loss (in lbs/day) as determined by material balances.
 - d. Maintain a 365-day rolling average of the solvent loss (in lbs/day).
- 2. As required by 40 CFR §63.2851, the owner or operator shall develop and implement a written plan for demonstrating compliance that provides the detailed procedures to be followed to monitor and record data necessary for demonstrating compliance with NESHAP Subpart GGGG. The plan for demonstrating compliance shall include the following:
 - a. The name and address of the owner or operator.
 - b. The physical address of the vegetable oil production process.
 - c. A detailed description of all methods of measurement the owner or operator will use to determine the solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.
 - d. When each measurement will be made.
 - e. Examples of each calculation the owner or operator will use to determine the compliance status of the facility (plant number 68-09-001). The owner or operator shall include examples of how data measured with one parameter will be converted to other terms for use in the compliance determination.
 - f. Example logs of how the data will be recorded.
 - g. A plan to ensure that the data continue to meet compliance demonstration needs.
- 3. As required by 40 CFR §63.2862(c) and in accordance with the plan for demonstrating compliance required by 40 CFR §63.2851, the owner or operator shall record the following:
 - a. For the solvent inventory, record the following information:
 - i. Dates that define each operating status period during a calendar month.
 - ii. The operating status of the facility (plant number 68-09-001) such as normal operation, nonoperation, initial startup period, malfunction period, or exempt operation for each recorded time interval.
 - iii. Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.
 - iv. The gallons of all extraction solvent received, purchased, and recovered during each calendar month.
 - v. All extraction solvent inventory adjustments, additions or subtractions. The owner or operator must document the reason for the adjustment and justify the quantity of the adjustment.
 - vi. The total solvent loss for each calendar month, regardless of the source operating status.
 - vii. The actual solvent loss in gallons for each operating month.

- b. For the weighted average volume fraction of HAP in the extraction solvent, the owner or operator must record the following items:
 - i. The gallons of extraction solvent received in each delivery.
 - ii. The volume fraction of each HAP exceeding one percent (1%) by volume in each delivery of extraction solvent.
 - iii. The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with 40 CFR §63.2854(b)(2).
- c. For each type of listed oilseed processed, record the following items:
 - i. The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.
 - ii. The operating status of the facility (plant number 68-09-001) such as normal operation, nonoperation, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, the owner or operator shall record which type of listed oilseed is being processed in addition to the source operating status.
 - iii. The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.
 - iv. The tons of each type of listed oilseed received at the facility (plant number 68-09-001) each normal operating period.
 - v. All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. The owner or operator shall document the reason for the adjustment and justify the quantity of the adjustment.
 - vi. The tons of each type of listed oilseed processed during each operating month.
- 4. As required by 40 CFR §63.2862(d), after the facility (plant number 68-09-001) has processed a listed oilseed for twelve (12) operating months and is not operating during an initial startup period as described in 40 CFR §63.2850(c)(2) or 40 CFR §63.2850(d)(2), or a malfunction period as described in 40 CFR §63.2850(e)(2), the owner or operator shall record the following items by the end of the calendar month following each operating month:
 - a. The twelve (12) operating months rolling sum of the actual solvent loss in gallons as described in 40 CFR §63.2853(c).
 - b. The weighted average volume fraction of HAP in extraction solvent received for the previous twelve (12) operating months as described in 40 CFR §63.2854(b)(3).
 - c. The twelve (12) operating months rolling sum (in tons) of each type of listed oilseed processed at the facility (plant number 68-09-001) as described in 40 CFR §63.2855(c).
 - d. A determination of the compliance ratio. The owner or operator shall use the values from 40 CFR §63.2853, 40 CFR §63.2854, 40 CFR §63.2855, and Table 1 of 40 CFR §63.2840 along with Equation 2 of 40 CFR §63.2840 to calculate the compliance ratio.
 - e. A statement of whether the source is in compliance with all of the requirements of NESHAP Subpart GGGG. This includes a determination of whether the facility (plant number 68-09-001) has met all of the applicable requirements in 40 CFR §63.2850.

- 5. All notifications for NESHAP Subpart GGGG at the facility (68-09-001) shall be submitted as required per 40 CFR §63.2860.
- 6. All reports for NESHAP Subpart GGGG at the facility (68-09-001) shall be submitted as required per 40 CFR §63.2861.
- 7. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system. This inspection shall include observation of the physical appearance of the equipment (e.g. presence of holes in ductwork or hoods, flow constructions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
- 8. As required by Consent Decree Paragraph 30.d., compliance with the Eddyville SLR limit (0.365 gal/ton) shall be calculated on a monthly basis and determined in accordance with 40 CFR Part 63, Subpart GGGG, with the following exceptions:
 - a. Provisions pertaining to HAP content shall not apply;
 - b. Solvent losses and quantities of oilseeds processed during startup and shutdown periods shall not be excluded in determining solvent losses; and
 - c. Records shall be kept in the form of the table in Appendix N (Extraction Solvent Loss Recordkeeping Template) of the Consent Decree, that show total solvent losses, solvent losses during malfunction periods, and adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve (12) month rolling average basis.

The owner or operator may apply the provisions of 40 CFR Part 3, Subpart GGGG pertaining to malfunction periods only when:

- i. The malfunction results in a shutdown of the solvent extraction system; and
- ii. Cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a twelve (12) month rolling period.
- 9. As required by 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the following information:
 - a. A description of the project (Project Number 08-616),
 - b. Identification of the emission unit(s) whose emissions of a regulated NSR pollutant as defined at the beginning of actual construction that could be affected by the project (Project Number 08-616), and
 - c. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant subject to this review, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "projected actual emissions" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.

Authority for Requirement: DNR Construction Permits 03-A-004-P3 & 17-A-162-P1

567 IAC 23.1(4) "cg" 40 CFR 63 Subpart GGGG

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

<u>EP 68.000</u>

Stack Height, (ft., from the ground): 47
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 27,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-004-P3

EP 234.000

Stack Height, (ft., from the ground): 87
Stack Opening, (inches, dia.): 30
Exhaust Flow Rate (scfm): 10,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 17-A-162-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

<u>Monitoring Requirements</u> *The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

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

Emission Point ID Number: 69.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
69.000	Extraction & DT Aspiration	Germ & Solvent	62.5 tons/hr	03-A-005-P3

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 492.750 tons/yr⁽¹⁾, 2,700 lb/day^{(1), (2)}, 0.365 gal/ton

Authority for Requirement: DNR Construction Permit 03-A-005-P3

⁽¹⁾ The emission limit is total solvent loss for the facility

⁽²⁾ The emission limit is a 365-day rolling average.

⁽³⁾ gal/ton limit only

Pollutant: Total HAP Emission Limit(s): Compliance Ratio $\leq 1.00^{(3), (4)}$ Authority for Requirement: DNR Construction Permit 03-A-005-P3 567 IAC 23.1(4) "cg" 40 CFR 63 Subpart GGGG

⁽³⁾ The emission limit is a twelve (12) month rolling total and applies at all times including periods of startup, shutdown, or malfunction (SSM).

⁽⁴⁾ In accordance with 40 CFR §63.2840, the formula used to determine the Compliance Ratio is:

Compliance Ratio=
$$\frac{\text{f x Actual Sovent Loss}}{0.64 \text{ x } \sum_{i=1}^{n} ((\text{Oilseed})_i \text{ x } (\text{SLF})_i)}$$

Where:

- Compliance Ratio = the ratio of the actual HAP loss in gallons from the previous twelve (12) operating allowable HAP loss in gallons. months to an
 - f = the weighted average volume fraction of HAP in solvent received during the previous twelve (12) operating months, as determined in 40 CFR §63.2854 (dimensionless).
- Actual Solvent Loss = gallons of actual solvent loss during previous twelve (12) operating months, as determined in 40 CFR §63.2853.

 - *Oilseed* = tons of each oilseed type "i" processed during the previous twelve (12) operating months, as shown in 40 CFR§63.2855.
 - SLF = the corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of 40 CFR §63.2840. For existing corn germ, wet milling facilities the SLF is 0.4 gal/ton.

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. Extraction and DT Aspiration (EU 69) is part of Germ Group. This group shall not process more than 1,500 tons of germ per day based on a thirty (30) day rolling average. For each day of operation, the owner or operator shall:
 - a. Track and record the amount of germ processed (in tons/day).
 - b. Maintain a thirty (30) day rolling average of the amount of germ processed.
 - c. Track and record the daily solvent loss (in lbs/day) as determined by material balances.
 - d. Maintain a 365-day rolling average of the solvent loss (in lbs/day).
- 2. As required by 40 CFR §63.2851, the owner or operator shall develop and implement a written plan for demonstrating compliance that provides the detailed procedures to be followed to monitor and record data necessary for demonstrating compliance with NESHAP Subpart GGGG. The plan for demonstrating compliance shall include the following:
 - a. The name and address of the owner or operator.
 - b. The physical address of the vegetable oil production process.
 - c. A detailed description of all methods of measurement the owner or operator will use to determine the solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.
 - d. When each measurement will be made.
 - e. Examples of each calculation the owner or operator will use to determine the compliance status of the facility (plant number 68-09-001). The owner or operator shall include examples of how data measured with one parameter will be converted to other terms for use in the compliance determination.
 - f. Example logs of how the data will be recorded.
 - g. A plan to ensure that the data continue to meet compliance demonstration needs.
- 3. As required by 40 CFR §63.2862(c) and in accordance with the plan for demonstrating compliance required by 40 CFR §63.2851, the owner or operator shall record the following:
 - a. For the solvent inventory, record the following information:
 - (i) Dates that define each operating status period during a calendar month.
 - (ii) The operating status of the facility (plant number 68-09-001) such as normal operation, nonoperation, initial startup period, malfunction period, or exempt operation for each recorded time interval.
 - (iii)Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.
 - (iv)The gallons of all extraction solvent received, purchased, and recovered during each calendar month.
 - (v) All extraction solvent inventory adjustments, additions or subtractions. The owner or operator must document the reason for the adjustment and justify the quantity of the adjustment.

- (vi) The total solvent loss for each calendar month, regardless of the source operating status.
- (vii) The actual solvent loss in gallons for each operating month.
- b. For the weighted average volume fraction of HAP in the extraction solvent, the owner or operator must record the following items:
 - (i) The gallons of extraction solvent received in each delivery.
 - (ii) The volume fraction of each HAP exceeding one percent (1%) by volume in each delivery of extraction solvent.
 - (iii)The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with 40 CFR §63.2854(b)(2).
- c. For each type of listed oilseed processed, record the following items:
 - (i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.
 - (ii) The operating status of the facility (plant number 68-09-001) such as normal operation, nonoperation, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, the owner or operator shall record which type of listed oilseed is being processed in addition to the source operating status.
 - (iii)The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.
 - (iv)The tons of each type of listed oilseed received at the facility (plant number 68-09-001) each normal operating period.
 - (v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. The owner or operator shall document the reason for the adjustment and justify the quantity of the adjustment.

(vi)The tons of each type of listed oilseed processed during each operating month.

- 4. As required by 40 CFR §63.2862(d), after the facility (plant number 68-09-001) has processed a listed oilseed for twelve (12) operating months and is not operating during an initial startup period as described in 40 CFR §63.2850(c)(2) or 40 CFR §63.2850(d)(2), or a malfunction period as described in 40 CFR §63.2850(e)(2), the owner or operator shall record the following items by the end of the calendar month following each operating month:
 - a. The twelve (12) operating months rolling sum of the actual solvent loss in gallons as described in 40 CFR §63.2853(c).
 - b. The weighted average volume fraction of HAP in extraction solvent received for the previous twelve (12) operating months as described in 40 CFR §63.2854(b)(3).
 - c. The twelve (12) operating months rolling sum (in tons) of each type of listed oilseed processed at the facility (plant number 68-09-001) as described in 40 CFR §63.2855(c).
 - d. A determination of the compliance ratio. The owner or operator shall use the values from 40 CFR §63.2853, 40 CFR §63.2854, 40 CFR §63.2855, and Table 1 of 40 CFR §63.2840 along with Equation 2 of 40 CFR §63.2840 to calculate the compliance ratio.
 - e. A statement of whether the source is in compliance with all of the requirements of NESHAP Subpart GGGG. This includes a determination of whether the facility

(plant number 68-09-001) has met all of the applicable requirements in 40 CFR §63.2850.

- 5. All notifications for NESHAP Subpart GGGG at the facility (68-09-001) shall be submitted as required per 40 CFR §63.2860.
- 6. All reports for NESHAP Subpart GGGG at the facility (68-09-001) shall be submitted as required per 40 CFR §63.2861.
- 7. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system. This inspection shall include observation of the physical appearance of the equipment (e.g. presence of holes in ductwork or hoods, flow constructions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.
- 8. As required by Consent Decree Paragraph 30.d., compliance with the Eddyville SLR limit (0.365 gal/ton) shall be calculated on a monthly basis and determined in accordance with 40 CFR Part 63, Subpart GGGG, with the following exceptions:
 - a. Provisions pertaining to HAP content shall not apply;
 - b. Solvent losses and quantities of oilseeds processed during startup and shutdown periods shall not be excluded in determining solvent losses; and
 - c. Records shall be kept in the form of the table in Appendix N (Extraction Solvent Loss Recordkeeping Template) of the Consent Decree, that show total solvent losses, solvent losses during malfunction periods, and adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve (12) month rolling average basis.

The owner or operator may apply the provisions of 40 CFR Part 3, Subpart GGGG pertaining to malfunction periods only when:

- (i) The malfunction results in a shutdown of the solvent extraction system; and
- (ii) Cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a twelve (12) month rolling period.
- 9. As required by 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the following information:
 - a. A description of the project (Project Number 15-283),
 - b. Identification of the emission unit(s) whose emissions of a regulated NSR pollutant as defined at the beginning of actual construction that could be affected by the project (Project Number 15-283), and
 - c. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant subject to this review, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of *"projected actual emissions"* in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- 10. As required by with 567 IAC 33.3(18)"f"(4), the owner or operator shall:
 - a. Monitor the emission of any regulated New Source Review (NSR) pollutant subject to this review that could increase as a result of the project that is emitted by any emissions unit identified in permit Condition 11 above.
 - b. Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of ten (10) years following resumption of regular operations and maintain a record of regular operations after the change.
- 12. As required by 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in Condition 12

above of this permit and that record shall be retained by the owner or operator for a period of ten (10) years after the project (Project Number 15-283) is completed.

- 13. As required by 567 IAC 33.3(18)"f"(7), the owner or operator shall submit a report to the Department if the annual emissions (in tons/yr) from Project Number 15-283 exceed the baseline actual emissions (BAE), as documented and maintained pursuant to permit Condition 11 above, by an amount that is "significant" as defined in 567 IAC 33.3(1) for that NSR regulated pollutant, and if such emissions differ from the preconstruction projections as documented and maintained pursuant to permit Condition 13 above. The report shall be submitted to the Department within sixty (60) days after the end of such year and contain the following:
 - a. The name, address, and telephone number of the major stationary source;
 - b. The annual emissions as calculated pursuant to permit Condition 13 above; and
 - c. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction project).

Authority for Requirment:DNR Construction Permit 03-A-005-P3567 IAC 23.1(4) "cg"40 CFR 63 Subpart GGGG

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 73
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 18,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-005-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 70.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
70.000	Germ Storage Aspiration	CE 70.000: Baghouse	Germ	62.5 tons/hr	91-A-117-S2

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 91-A-117-S2 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.168 lb/hr⁽²⁾, 0.736 tons/yr⁽²⁾ Authority for Requirement: DNR Construction Permit 91-A-117-S2

Pollutant: Particulate Matter Emission Limit(s): 0.168 lb/hr⁽²⁾, 0.736 tons/yr⁽²⁾, 0.05 gr/scf⁽²⁾ Authority for Requirement: DNR Construction Permit 91-A-117-S2

⁽²⁾ Emission limit is BACT

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.53 lb/hr Authority for Requirement: DNR Construction Permit 91-A-117-S2

Pollutant: Total HAP Emission Limit(s): 0.13 lb/hr Authority for Requirement: DNR Construction Permit 91-A-117-S2

Operational Limits & Requirements

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

Process throughput:

1. This process is a member of the Germ Group. The processing rate of the germ group shall be limited to 1500 tons of germ per day with compliance demonstrated on a 30-day rolling average basis.

Control equipment parameters:

1. The fabric filter shall be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

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

- 1. Record the production rate of the germ process in tons per day for every day of operation.
- 2. Maintain a 30-day rolling average of the production rate of the germ process.
- 3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (IE pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in the duct work or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 91-A-117-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 125
Stack Opening, (inches, dia.): 18
Exhaust Flow Rate (scfm): 3,925
Exhaust Temperature (°F): 80
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-A-117-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

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

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

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

Emission Point ID Number: 107.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity (tons/day)	Construction Permit
107.058	Flaker Conditioner	CE 107.058: 2 Cyclone Scrubbers	Germ	1500	
107.259	Expeller I	CE 107.059: Scrubber	Germ	660	
107.060	Germ Dryer/Cooler	CE 107.060: Impingement Tray Scrubber	Germ	600	13-A-271-P2
107.064	Cold Germ Transfer Receiver	CE 107.064: Fabric Filter	Germ	800	
107.210	Expeller II	CE 107.110: Scrubber	Germ	660	
107.215	Germ Cooler	CE 107.215: Baghouse	Germ	600	

Associated Equipment

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.

Total emissions from EP 107.000

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7) Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 33.62 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Pollutant: Total HAP Emission Limit(s): 3.85 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Flaker Conditioner (EU 107.058) Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7)

Pollutant: PM₁₀ Emission Limit(s): 0.479 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 13-A-271-P2

Expeller I (EU 107.259) Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7)

Pollutant: PM₁₀ Emission Limit(s): 0.72 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 6.0 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 13-A-271-P2

<u>Germ Dryer/Cooler (EU 107.060)</u> Pollutant: Particulate Matter Emission Limit(s): 1.050 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7)

Pollutant: PM₁₀ Emission Limit(s): 1.050 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 20.0 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2 Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 32.5 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

<u>Cold Germ Transfer Receiver (EU 107.064)</u> Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7)

Pollutant: PM₁₀ Emission Limit(s): 0.562 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 13-A-271-P2

Expeller II (EU 107.210) Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7)

Pollutant: PM₁₀ Emission Limit(s): 1.1 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 6.0 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 13-A-271-P2

<u>Germ Cooler (EU 107.215)</u> Pollutant: Particulate Matter Emission Limit(s): 1.16 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 13-A-271-P2 567 IAC 23.4(7)

Pollutant: PM₁₀ Emission Limit(s): 1.16 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 5.16 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 5.57 lb/hr Authority for Requirement: DNR Construction Permit 13-A-271-P2

⁽²⁾ Emission limit is BACT

Operational Limits & Reporting/Record keeping Requirements

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

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

Germ Process Group

- 1. This process is a member of the Germ Group. The processing rate of the germ group shall be limited to 1,500 tons of germ per day with compliance demonstrated on a 30-day rolling average basis.
- 2. Record the production rate of the germ process in tons per day every day of operation
- 3. Maintain a 30-day rolling average of the production rate of the germ process.

Flaker Conditioner:

- 1. The cyclone scrubbers should be maintained according to manufacturer's specifications and instructions.
- 2. The 3-hour block average liquid flow to these scrubbers shall be maintained above the average value during the most recent VOC stack test on EP107 which demonstrated compliance with the applicable emission limit.
- 3. The owner/operator shall install and operate equipment to continuously monitor and require the liquid flow rate to each of the two scrubbers associated with the Flaker Conditioner. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.
- 4. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Expeller I:

- 1. The scrubber should be maintained according to manufacturer's specifications and instructions.
- 2. The 3-hour block average liquid flow to this scrubber shall be maintained above the average value during the most recent VOC stack test on EP107 which demonstrated compliance with the applicable emission limit.
- 3. The 3-hour block average pressure drop across this scrubber shall be maintained above the average pressure drop value observed during the most recent stack test demonstrating compliance.
- 4. The owner/operator shall install and operate equipment to continuously monitor and record the liquid flow rate to each of the scrubber associated with the Expeller I. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.
- 5. The owner/operator shall install and operate equipment to continuously monitor and record the pressure drop across the scrubber associated with the Expeller I. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.

6. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Germ Dryer:

- 1. The scrubber on this source shall be maintained and operated according to manufacturer's specifications and instructions.
- 2. The 3-hour block average liquid flow to this scrubber shall be maintained above the average value during the most recent VOC stack test on EP107 which demonstrated compliance with the applicable emission limit.
- 3. The 3-hour block average pressure drop across this scrubber shall be maintained above the average pressure drop value observed during the most recent stack test demonstrating compliance.
- 4. The owner/operator shall install and operate equipment to continuously monitor and record the liquid flow rate to each of the scrubber associated with the Germ Dryer. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.
- 5. The owner/operator shall install and operate equipment to continuously monitor and record the pressure drop across the scrubber associated with the Germ Dryer. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.
- 6. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and appropriate action taken.

Cold Germ Transfer Receiver:

- 1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.
- 2. Record the pressure drop across the filter weekly and compare with the pressure drop recorded during the compliance testing.
- 3. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Expeller II:

- 1. The scrubber should be maintained according to manufacturer's specifications and instructions.
- 2. The 3-hour block average liquid flow to this scrubber shall be maintained above the average value during the most recent VOC stack test on EP107 which demonstrated compliance with the applicable emission limit.
- 3. The 3-hour block average pressure drop across this scrubber shall be maintained above the average pressure drop value observed during the most recent stack test demonstrating compliance.
- 4. The owner/operator shall install and operate equipment to continuously monitor and record the liquid flow rate to each of the scrubber associated with the Expeller II. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.
- 5. The owner/operator shall install and operate equipment to continuously monitor and record the pressure drop across the scrubber associated with the Expeller II. The recording device associated with this equipment shall record data at least once every 5 minutes. This data shall be processed and recorded as a 3-hour block average.
- 6. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 13-A-271-P2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 185
Stack Opening, (inches, dia.): 56
Exhaust Flow Rate (scfm): See Table Below
Exhaust Temperature (°F): 110-200
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 13-A-271-P2

	Exhaust
EU ID	Flow Rate (scfm)
107.058	2,000
107.259	2,875
107.060	3,500
107.064	1,750
107.210	2,200
107.215	19,100

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🗌
$(CF 107.060)$ the requirements from normit $13_{-}4_{-}271_{-}P2$ are consider	ad aquivalant to C

(CE 107.060, the requirements from permit 13-A-271-P2 are considered equivalent to CAM, therefore an additional CAM plan is not required)

Emission Point ID Number: 133.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
133.000	Meal Drying/Cooling & Conveying	Germ	30 tons/hr	99-A-164-S4

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement:

DNR Construction Permit 99-A-164-S4 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 25% 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: PM₁₀ Emission Limit(s): 0.086 lb/hr Authority for Requirement: DNR Construction Permit 99-A-164-S4

Pollutant: Particulate Matter Emission Limit(s): 0.086 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 99-A-164-S4 567 IAC 23.4(7)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 68.5
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 450
Exhaust Temperature (°F): 150
Discharge Style: Vertical Obstructed
Authority for Requirement: DNR Construction Permit 99-A-164-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 139.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
139.000	Germ Meal Dryer/Cooler	CE 139.000: Scrubber	Germ	30 tons/hr	01-A-574-S1

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DN

DNR Construction Permit 01-A-574-S1 567 IAC 23.3(2)"d"

⁽¹⁾ An exceedance of the indicator opacity of 10% 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: PM₁₀ Emission Limit(s): 0.582 lb/hr Authority for Requirement: DNR Construction Permit 01-A-574-S1

Pollutant: Particulate Matter Emission Limit(s): 0.582 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 01-A-574-S1 567 IAC 23.4(7)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 90
Stack Opening, (inches, dia.): 19.5
Exhaust Flow Rate (scfm): 4,150
Exhaust Temperature (°F): 125
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 01-A-574-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

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

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

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

Emission Point ID Number: 146.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
146.000	Dry Germ Silo	CE 146.000: Baghouse	Germ	200 tons/hr	03-A-131-S3

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 03-A-131-S3 567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 03-A-131-S3 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 1.0 lb/hr Authority for Requirement: DNR Construction Permit 03-A-131-S3

Pollutant: Total HAP Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 03-A-131-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 83
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 1,100
Exhaust Temperature (°F): Ambient (70°)
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-131-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

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

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

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

Emission Point ID Number: 77.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
77.1	Beer Column			42,000 gallons	
77.2	Rectifying Column	CE 77.000: Dextrose, Glucose,		35,000 gallons	
77.3	Stripping Column	Packed Bed Scrubber	Yeast, Water	6,000 gallons	91-A-234-P5
77.4	Molecular Sieve Unit		water	42,000 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.

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.85 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 91-A-234-P5 ⁽¹⁾ Emission limit is BACT

Pollutant: Total HAP Emission Limit(s): The TRE level shall be maintained such that no requirements apply per 40 CFR Part 63, Subpart FFFF, Table 1, for Group 2 continuous process vents at an existing source Authority for Requirement: DNR Construction Permit 91-A-234-P5

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. This process is a member of the Ethanol Group. The production capacity of this group shall be limited to 70.1 million gallons of undenatured ethanol per 12-month rolling period.
- 2. The owner or operator shall record monthly:
 - a. The amount of undenatured ethanol produced.
 - b. The 12 month rolling total of undenatured ethanol produced.
- 3. The owner or operator shall follow the applicable requirements of 40 CFR §60.480a §60.489a.
- 4. The owner or operator shall follow the applicable requirements of 40 CFR §63.2430 §63.2550

- 5. The owner or operator shall recalculate the project increase for 18-098 for VOC and submit the result to the DNR if both the grind rate of the facility exceeds 2.7 million tons and the production of undenatured ethanol exceeds 118,000 tons per twelve month rolling period in the five year period following the issuance of permit 91-A-234-P4.
- 6. The control equipment (CE 77) shall be operated at all times any of the emission units are being operated.
- 7. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 8. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 91-A-234-P5 567 IAC 23.1(2)"nn" 40 CFR 60 Subpart VVa 567 IAC 23.1(4)"cf" 40 CFR 63 Subpart FFFF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 89
Stack Opening, (inches, dia.): 3
Exhaust Flow Rate (scfm): 300
Exhaust Temperature (°F): 85
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 91-A-234-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 78.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
78.1	Rectifying Column Evaporator	CE 78.000: Packed Bed	Ethanol/Water	13,000 gallons	91-A-235-P4
78.2	Molecular Sieve Unit Evaporator	Scrubber	Ethanol/water	13,000 gallons	91-A-255-P4

Associated Equipment

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 0.67 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 91-A-235-P4 ⁽¹⁾ Emission limit is BACT

Pollutant: Total HAP

Emission Limit(s): The TRE level shall be maintained such that no requirements apply per 40 CFR Part 63, Subpart FFFF, Table 1, for Group 2 continuous process vents at an existing source Authority for Requirement: DNR Construction Permit 91-A-235-P4

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. This process is a member of the Ethanol Group. The production capacity of this group shall be limited to 70.1 million gallons of undenatured ethanol per 12-month rolling period.
- 2. The owner or operator shall record monthly:
 - a. The amount of undenatured ethanol produced.
 - b. The 12 month rolling total of undenatured ethanol produced.
- 3. The owner or operator shall follow the applicable requirements of 40 CFR §60.480a §60.489a.
- 4. The owner or operator shall follow the applicable requirements of 40 CFR §63.2430 §63.2550
- 5. The owner or operator shall recalculate the project increase for 18-098 for VOC and submit the result to the DNR if both the grind rate of the facility exceeds 2.7 million tons and the production of undenatured ethanol exceeds 118,000 tons per twelve month rolling period in the five year period following the issuance of permit 91-A-235-P3.

- 6. The control equipment (CE 78) shall be operated at all times any of the emission units are being operated.
- 7. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 8. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 91-A-235-P4

567 IAC 23.1(2)"nn" 40 CFR 60 Subpart VVa 567 IAC 23.1(4)"cf" 40 CFR 63 Subpart FFFF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 89
Stack Opening, (inches, dia.): 3
Exhaust Flow Rate (scfm): 14
Exhaust Temperature (°F): 70
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 91-A-235-P4

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 79.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
79.000	Ethanol Loadout	CE 79.000: Vapor Combustor	Ethanol	85 tons/hr	91-A-236-P5

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 91-A-236-P5 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.05 lb/hr Authority for Requirement: DNR Construction Permit 91-A-236-P5

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 91-A-236-P5 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 500 ppmv Authority for Requirement: DNR Construction Permit 91-A-236-P5 567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 7.07 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 91-A-236-P5 ⁽²⁾ Emission limit is BACT

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. This process is a member of the Ethanol Group. The production capacity of this group shall be limited to 70.1 million gallons of undenatured ethanol per 12-month rolling period.
- 2. The owner or operator shall record monthly:
 - a. The amount of undenatured ethanol produced.
 - b. The 12 month rolling total of undenatured ethanol produced.
- 3. The owner or operator shall follow the applicable requirements of 40 CFR §63.2430 §63.2550. Specifically, the facility shall comply with all applicable requirements for each transfer rack according to the provisions in 40 CFR §63.2475., 63.2520 and 63.2525 should the transfer rack be "in organic HAP service" as defined in Subpart FFFF.
- 4. The owner or operator shall keep records demonstrating that the organic HAP rackweighted average partial pressure of the loadout is less than 1.5 psia.
- 5. The auxiliary fuel used in the vapor combustor (CE 79) is limited to natural gas or propane.
- 6. The vapors emitted at this emission unit (EU 79) shall be vented through the vapor combustor (CE 79) at all times. The ethanol loadout shall at no time operate uncontrolled.
- 7. The owner or operator shall monitor the presence of a pilot flame in the vapor combustor.
- 8. The owner or operator shall follow the applicable standards of Subpart VV.
- 9. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 10. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 91-A-236-P5

567 IAC 23.1(2)"nn" 40 CFR 60 Subpart VV 567 IAC 23.1(4)"cf" 40 CFR 63 Subpart FFFF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 48
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 1,182
Exhaust Temperature (°F): 1,400
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-A-236-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 80.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
80.000	Ethanol Tank Farm	Ethanol & Denaturant	1,170,000 gallons	91-A-237-S1

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 6.00 tons/yr Authority for Requirement: DNR Construction Permit 91-A-237-S1

Operational Limits & Requirements

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

Process throughput:

- 1. This tank farm is a member of the Ethanol Group. The storage capacity of the tank farm shall be limited to 1,170,000 gallons.
- 2. Floating roof should be maintained according to manufacturer's specifications and instructions.

Reporting & Record keeping:

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

1. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system. This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

Authority for Requirement: DNR Construction Permit 91-A-237-S1

<u>NSPS</u>

60.112b Standards for VOC

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor

pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

60.113b Testing and Procedures

(a) After installing the control equipment required to meet $\S 60.112b(a)(1)$ (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in $\S 60.112b(a)(1)(ii)(B)$:

(i) Visually inspect the vessel as specified in <u>paragraph (a)(4)</u> of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in <u>paragraph (a)(2)</u> of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by <u>paragraphs (a)(1)</u> and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by <u>paragraph (a)(4)</u> of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

60.115b Reporting and Recordkeeping Requirements

(a) After installing control equipment in accordance with $\S 60.112b(a)(1)$ (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of \S 60.112b(a)(1) and \S 60.113b(a)(1). This report shall be an attachment to the notification required by \S 60.7(a)(3). (2) Keep a record of each inspection performed as required by \S 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). (3) If any of the conditions described in \S 60.113b(a)(2) are detected during the annual visual inspection required by \S 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by $\S 60.113b(a)(3)$ that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in $\S 60.113b(a)(3)(ii)$, a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of $\S 60.112b(a)(1)$ or $\S 60.113b(a)(3)$ and list each repair made.

60.116b Monitoring of Operations

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by <u>paragraph (b)</u> of this section, for at least 2 years. The record required by <u>paragraph (b)</u> of this section will be kept for the life of the source.

(b) he owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in <u>paragraphs (f)</u> and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

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

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 🖂

Emission Point ID Number: 85.000

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity (gallons)	Construction Permit
85.1	Prefermenter			354,000	
85.2	Fermenter #1			354,000	
85.3	Fermenter #2	CE 85RTO: Regenerative Thermal Oxidizer CE 85: Product	Fermentation	950,000 nominal	93-A-115-P4
85.4	Fermenter #3			354,000	
85.5	Fermenter #4		Broth	354,000	
85.6	Fermenter #5	Recovery Scrubber		186,000	
85.7	Beerwell			186,000	
226	Yeast Propagator			3,500	

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 93-A-115-P4 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.06 lb/hr Authority for Requirement: DNR Construction Permit 93-A-115-P4

Pollutant: Particulate Matter Emission Limit(s): 0.06 lb/hr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 93-A-115-P4 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO₂) Emission Limit(s): 500 ppmv Authority for Requirement: DNR Construction Permit 93-A-115-P4 567 IAC 23.3(3)"e" Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 10.50 lb/hr, 11.58 lb/hr⁽²⁾ Authority for Requirement: DNR Construction Permit 93-A-115-P4 ⁽²⁾ BACT limit

Pollutant: Total HAP Emission Limit(s): ≥98% reduction or ≤20 ppmv Authority for Requirement: DNR Construction Permit 93-A-115-P4 567 IAC 23.1(4)"cf" 40 CFR 63 Subpart FFFF

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. This process is a member of the Ethanol Group. The production capacity of this group shall be limited to 70.1 million gallons of undenatured ethanol per 12-month rolling period.
- 2. The owner or operator shall record monthly:
 - a. The amount of undenatured ethanol produced.
 - b. The 12 month rolling total of undenatured ethanol produced.
- 3. The owner or operator shall follow the applicable requirements of 40 CFR §60.480a §60.489a.
- 4. The owner or operator shall follow the applicable requirements of 40 CFR §63.2430 §63.2550
- 5. The owner or operator shall recalculate the project increase for 18-098 for VOC and submit the result to the DNR if both the grind rate of the facility exceeds 2.7 million tons and the production of undenatured ethanol exceeds 118,000 tons per twelve month rolling period in the five year period following the issuance of permit 93-A-115-P3.
- 6. The control equipment (CE 85RTO and CE85) shall be operated at all times any of the emission units are being operated.
- 7. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 8. The owner or operator shall keep records of control equipment inspections and maintenance.
- 9. The RTO, (CE 85RTO), shall maintain a 3-hour average temperature during operation of not less than 50 degrees Fahrenheit of the average temperature of the RTO recorded during the most recent performance test which demonstrated compliance with the emission limits.
- 10. The owner or operator shall keep three-hour block records of the operating temperature of the thermal oxidizer and record all three-hour periods (during actual operations) during which the average temperature of the thermal oxidizer is more than 50 degrees Fahrenheit below the average temperature of the oxidizer during its most recent performance test which demonstrated compliance with the emission limits. This requirement shall not apply on the days that the thermal oxidizer or the equipment that the RTO controls is not in operation.

- 11. The scrubber (CE 85) flowrate shall be maintained at or above the average flow rate from the most recent stack test demonstrating compliance with the emission limit.
- 12. The owner or operator shall record a 3-hour block average of the scrubber (CE85) flowrate at least once per day.

Authority for Requirement: DNR Construction Permit 93-A-115-P4 567 IAC 23.1(2)"nn" 40 CFR 60 Subpart VVa 567 AIC 23.1(4)"cf" 40 CFR 63 Subpart FFFF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 100
Stack Opening, (inches, dia.): 18
Exhaust Flow Rate (scfm): 10,000
Exhaust Temperature (°F): 200
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 93-A-115-P4

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 41.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
41.000	Lime/Precoat Weigh & LX Contact Hoppers	CE 41.000: Baghouse	Lime/Precoat	13.4 tons/hr	88-A-105-S2

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): 0% Authority for Requirement: DNR Construction Permit 88-A-105-S2

Pollutant: PM₁₀ Emission Limit(s): 0.039 lb/hr Authority for Requirement: DNR Construction Permit 88-A-105-S2

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: 567 IAC 23.4(7)

Operational Limits & Requirements

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

Process throughput:

1. This process is a member of the Citric Acid Group. The processing rate shall be limited to 9,000 tons of Lime or Precoat per calendar month.

Control equipment parameters:

1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

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

- 1. Estimate and record the processing rate of lime or precoat in tons per calendar month every month of operation.
- 2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 88-A-105-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 78
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 900
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 88-A-105-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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.

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

Emission Point ID Number: 44.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
44.000	Precoat Weigh Hopper	CE 44.000: Baghouse	Precoat	6.5 tons/hr	88-A-108-P2

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 88-A-108-P2 567 IAC 23.3(2)"d"

⁽¹⁾Visible emissions, other than those observed during startup, shutdown, or malfunction, 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: PM₁₀ Emission Limit(s): 0.005 gr/dscf⁽¹⁾, 0.118 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 88-A-108-P2

Pollutant: Particulate Matter Emission Limit(s): 0.005 gr/dscf⁽¹⁾, 0.118 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 88-A-108-P2

⁽¹⁾ Emission Limit is BACT

Operational Limits & Requirements

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

Process throughput:

1. The facility shall not process more than 4,320 tons of material, per calendar month, in the Precoat Weigh Hopper (emission unit EU 44.000).

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Reporting & Record keeping:

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

- 1. The facility shall record the total amount of material processed in emission unit EU 44.000 for each month of operation. Records may be kept on a calendar month basis.
- 2. The facility shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 88-A-108-P2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 78
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): 620-860*
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 88-A-108-P2

*Exhaust flowrate will vary between 620 scfm and 860 scfm, based on the tank and blower used. The exhaust flowrate for Tank TK-55115 is 860 scfm and the flowrate for Tank TK-55110 is 620 scfm.

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 50.000 (Pre-Replacement)

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
50.000	Lime Precoat Storage	CE 50.000: Fabric Filter	Precoat	13.4 tons/hr	89-A-150-S2

Associated Equipment

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): 0% Authority for Requirement: DNR Construction Permit 89-A-150-S2 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.032 lb/hr Authority for Requirement: DNR Construction Permit 89-A-150-S2

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

Operational Limits & Requirements

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

Process throughput:

1. This process is a member of the Citric Group. The processing rate shall be limited to 9000 tons of lime or precoat per calendar month.

Control equipment parameters:

1. Fabric filter should be maintained according to manufacturer's specifications and instructions and shall be designed and constructed for an air to cloth ratio of no greater than 12.

Reporting & Record keeping:

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

- 1. Record the process rate of lime or precoat in tons per calendar month every month of operation
- 2. Perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 89-A-150-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 58
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 750
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 89-A-150-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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 🖂

Emission Point ID Number: 50.000 (Post Replacement)

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
50A	Lime Precoat Storage	CE 50.000: Fabric Filter	Precoat	13.4 tons/hr	89-A-150-S3

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 89-A-150-S3 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.032 lb/hr Authority for Requirement: DNR Construction Permit 89-A-150-S3

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 89-A-150-S3 567 IAC 23.3(2)"a"

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The processing rate shall be limited to 9,000 tons of lime or precoat per calendar month. On a monthly basis, the owner or operator shall calculate and record the amount, in tons, of lime and precoat processed in this emission unit (EU-50A) during the previous calendar month.
- 2. The owner or operator shall inspect and maintain the Baghouse (CE-50) according to the manufacturer's specifications. The owner or operator shall maintain a log of all inspections and maintenance conducted on the Baghouse (CE-50). At a minimum, this log shall include:

- a. The date that any inspection and/or maintenance was performed on the Baghouse (CE-50);
- b. Any issues identified during the inspection activities and the date each issue was resolved;
- c. Any issues identified during the maintenance activities and the date each issue was resolved; and
- d. Identification of the staff member performing the maintenance and/or inspection.

Authority for Requirement: DNR Construction Permit 89-A-150-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 58
Stack Opening, (inches, dia.): 6
Exhaust Flow Rate (scfm): 750
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 89-A-150-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 83.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
83.000	Citric Acid Solvent Extraction	CE 83.000: Condenser	Citric Acid	114,000 gallons	93-A-005-P3

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 2.0 lb/hr⁽¹⁾, 8.76 tons/yr⁽¹⁾ Authority for Requirement: DNR Construction Permit 93-A-005-P3

⁽¹⁾ These limits are BACT

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. This process is a member of the Citric Group. The tank volume aspirated by this condenser is 114,000 gallons.
- 2. Condenser control should be maintained according to manufacturer's specifications and instructions.
- 3. The owner or operator shall keep records of control equipment inspections and maintenance.
- 4. The owner or operator shall demonstrate that the undiluted and uncontrolled emission stream from this process contains less than 50 ppm HAP. This shall be done by monthly sampling of the broth and completing an engineering estimate on predicted emissions. If the first sampling plus engineering estimate demonstrates a predicted total HAP emission rate of less than 37 ppm at maximum capacity, the additional monthly sampling/estimation requirement is waived.
- 5. The owner or operator shall keep records of the required HAP sampling results and associated engineering predicted emission rate.
- 6. The owner or operator shall make notifications as required in 40 CFR 63.2515, reports as specified in 40 CFR 63.2520, and recordkeeping as required in 40 CFR 63.2525.
- 7. Solvent used in this process shall have a maximum vapor pressure at 68F of 1.0 mmHg, and a maximum molecular weight of 180.
- 8. The owner or operator shall keep records demonstrating the vapor pressure and molecular weight of the solvent.

- 9. The processing rate of dry citric acid shall be limited to 398 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.
- 10. The owner or operator shall estimate and record the process rate in tons per day every day of operation.
- 11. The owner or operator shall maintain a 30-day rolling average of the process rate every day of operation.

Authority for Requirement: DNR Construction Permit 93-A-005-P3

567 IAC 23.1(4)""cf" 40 CFR 63 Subpart FFFF

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 63
Stack Opening, (inches, dia.): 9.96
Exhaust Flow Rate (scfm): 0-50
Exhaust Temperature (°F): 75
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 93-A-005-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

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

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

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

Emission Point ID Number: 108.047

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
108.047.1	Fluid Bed Dryer/Cooler	CE 108.047: Scrubber	Citric Acid	12,500 lb/hr	- 88-A-111-S4
108.047.2	Classified Crystal Dissolving Tank		Citric Acid	1,000 gallons	

Associated Equipment

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): 0% Authority for Requirement: DNR Construction Permit 88-A-111-S4 567 IAC 3.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 1.243 lb/hr Authority for Requirement: DNR Construction Permit 88-A-111-S4

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 88-A-111-S4 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 2.49 lb/hr Authority for Requirement: DNR Construction Permit 88-A-111-S4

Pollutant: Total HAP Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 88-A-111-S4

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The 3-hour average scrubber liquid feed rate shall be maintained at or above a value of 92.5 gallons per minute.
- 2. Install, operate, and maintain a system to continuously monitor and record the liquid feed rate to the scrubber associated with Dry Crystal Handling Aspiration. This data shall be processed and recorded as a 3-hour block average.
- 3. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 10.0 inches of water column and a maximum of 28.0 inches of water column.
- 4. The owner/operator shall record the pressure drop across the scrubber associated with Dry Crystal Handling Aspiration once daily.
- 5. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 6. Maintain an inspection and maintenance log for the scrubber associated with Dry Crystal Handling Aspiration. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.
- 7. This process is a member of the Citric Group. The processing rate of dry citric acid shall be limited to 150 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.
- 8. At the end of each day, record the amount (in tons) of citric acid produced during that day.
- 9. At the end of each day, calculate total amount of citric acid produced over the past 30 days by summing up the daily amount (in tons) produced for each of the last 30 days.
- 10. At the end of each day, calculate the 30-day average daily production rate by dividing the total amount (in tons) of citric acid produced over the past 30 days by the number of days production occurred during the past 30 days.
- 11. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 88-A-111-S4

NESHAP:

This equipment is subject to 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing. Rule text of this subpart can be found in Appendix A. Authority for Requirement: DNR Construction Permit 88-A-111-S4

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): 148
Stack Opening, (inches, dia.): 30
Exhaust Flow Rate (scfm): 12,200
Exhaust Temperature (°F): 125
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 88-A-111-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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 🖂

Emission Point ID Number: 108.081

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
108.081	Dry Crystal Cooler	CE 108.081: Scrubber	Citric Acid	15,000 lb/hr	92-A-103-P5

Associated Equipment

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 92-A-103-P5 567 IAC 3.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 2.06 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 92-A-103-P5

⁽¹⁾ Emission Limit is BACT

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 92-A-103-P5 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 2.93 lb/hr Authority for Requirement: DNR Construction Permit 92-A-103-P5

Pollutant: Total HAP Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 92-A-103-P5

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The 3-hour average scrubber liquid feed rate shall be maintained at or above a value of 90 gallons per minute.
- 2. Install, operate, and maintain a system to continuously monitor and record the liquid feed rate to the scrubber associated with Dry Crystal Cooler. This data shall be processed and recorded as a 3-hour block average.
- 3. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 10.0 inches of water column and a maximum of 30.0 inches of water column.
- 4. The owner/operator shall record the pressure drop across the scrubber associated with Dry Crystal Cooler once daily.
- 5. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 6. Maintain an inspection and maintenance log for the scrubber associated with Dry Crystal Cooler. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.
- 7. This process is a member of the Citric Group. The processing rate of dry citric acid shall be limited to 176 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.
- 8. At the end of each day, calculate total amount of citric acid produced over the past 30 days by summing up the daily amount (in tons) produced for each of the last 30 days.
- 9. At the end of each day, calculate the 30-day average daily production rate by dividing the total amount (in tons) of citric acid produced over the past 30 days by the number of days production occurred during the past 30 days.
- 10. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 92-A-103-P5

NESHAP:

This equipment is subject to 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing. Rule text of this subpart can be found in Appendix A. Authority for Requirement: DNR Construction Permit 92-A-103-P5

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): 130
Stack Opening, (inches, dia.): 30
Exhaust Flow Rate (scfm): 10,400
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 92-A-103-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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 🖂

Emission Point ID Number: 108.082

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
108.082.1	Fluid Bed Dryer/Cooler	CE 108.082:	Citric Acid	7,000 lb/hr	02 A 104 D4
108.082.2	Classified Crystal Dissolving Tank	Scrubber	Citric Acid	1,000 gallons	92-A-104-P4

Associated Equipment

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): 0%⁽¹⁾ Authority for Requirement: DNR Construction Permit 92-A-104-P4 567 IAC 3.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 0.773 lb/hr⁽¹⁾ Authority for Requirement: DNR Construction Permit 92-A-104-P4

⁽¹⁾ Emission Limit is BACT

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 92-A-104-P4 567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 1.2 lb/hr Authority for Requirement: DNR Construction Permit 92-A-104-P4

Pollutant: Total HAP Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 92-A-104-P4

Operational Limits & Reporting/Record keeping Requirements

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

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

- 1. The 3-hour average scrubber liquid feed rate shall be maintained at or above a value of 44 gallons per minute.
- 2. Install, operate, and maintain a system to continuously monitor and record the liquid feed rate to the scrubber associated with Dry Crystal Handling Aspiration II. This data shall be processed and recorded as a 3-hour block average.
- 3. The pressure drop across the scrubber shall be maintained within a range with a minimum value of 5.0 inches of water column and a maximum of 20.0 inches of water column.
- 4. The owner/operator shall record the pressure drop across the scrubber associated with Dry Crystal Handling Aspiration II once daily.
- 5. The scrubber shall be maintained according to the manufacturer's specifications and instructions.
- 6. Maintain an inspection and maintenance log for the scrubber associated with Dry Crystal Handling Aspiration II. This log shall include, but not necessarily be limited to the date of any inspection or maintenance activities performed, identification of staff performing the inspection or maintenance, any issues identified during an inspection, and explanation of any maintenance performed on the scrubber.
- 7. This process is a member of the Citric Group. The processing rate of dry citric acid shall be limited to 72 tons of dry product per day with compliance demonstrated on a 30-day rolling average basis.
- 8. At the end of each day, record the amount (in tons) of citric acid produced during that day.
- 9. At the end of each day, calculate total amount of citric acid produced over the past 30 days by summing up the daily amount (in tons) produced for each of the last 30 days.
- 10. At the end of each day, calculate the 30-day average daily production rate by dividing the total amount (in tons) of citric acid produced over the past 30 days by the number of days production occurred during the past 30 days.
- 11. The owner or operator shall perform monthly operational status inspections of process and control equipment that is important to the performance of the capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. Any variance on these operating limits shall be noted and appropriate action taken.

Authority for Requirement: DNR Construction Permit 92-A-104-P4

NESHAP:

This equipment is subject to 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing. Rule text of this subpart can be found in Appendix A. Authority for Requirement: DNR Construction Permit 92-A-104-P4

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): 113
Stack Opening, (inches, dia.): 20
Exhaust Flow Rate (scfm): 6,000
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 92-A-104-P4

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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:

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 🖂

Emission Point ID Number: 118.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
118.000	LX Startup/Shutdown Tank	Citric Acid	37,605 gallons	95-A-069-S1

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 3.00 lb/hr, 12.00 tons/yr Authority for Requirement: DNR Construction Permit 95-A-069-S1

Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below. Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Perform monthly operational status inspections of process equipment that is important to the performance of the capture system. This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents of accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

Authority for Requirement: DNR Construction Permit 95-A-069-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 30
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (acfm): 30
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-069-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 120.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
120.000	Citric Acid Plant Backup Power Generator	Diesel Fuel	749 bhp	96-A-1040

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40% Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM₁₀ Emission Limit(s): 1.29 lb/hr Authority for Requirement: DNR Construction Permit 96-A-1040

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

Pollutant: Nitrogen Oxides (NO_x) Emission Limit(s): 18.95 lb/hr Authority for Requirement: DNR Construction Permit 96-A-1040

Operational Limits & Requirements

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

Process throughput:

- 1. Fuel usage in the Citric Acid Plant Backup Generator is limited to diesel fuel which contains a sulfur content of 0.05% by weight or less.
- 2. The Citric Acid Plant Backup Generator is to be operated no more than 500 hours per 12 month rolling period.
- 3. The owner or operator is required to operate the Citric Acid Plant Backup Generator within the operating limits specified by its manufacturer.

Reporting & Record keeping:

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

The owner/operator shall keep records of the following:

- 1. Fuel supplier's analysis of diesel fuel used in the Citric Acid Plant Backup Generator which shows weight percentage of sulfur in the diesel fuel.
- 2. Record of time periods when the Citric Acid Plant Backup Generator is operating.
- 3. Total hours of operation for the Citric Acid Plant Backup Generator per 12 month rolling period.

4. Log of maintenance and repairs performed on the Citric Acid Plant Backup Generator. Authority for Requirement: DNR Construction Permit 96-A-1040

NESHAP:

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(i) this emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to December 19, 2002.

According to 63.6590(b)(3)(iii), an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is not subject to the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A, including initial notification requirements.

Authority for Requirement: 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): 20
Stack Opening, (inches, dia.): 9
Exhaust Flow Rate (acfm): 4,700
Exhaust Temperature (°F): 770
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 96-A-1040

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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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.

<u>Monitoring Requirements</u> *The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

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

Emission Point ID Number: 125.000

Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
125.000	Lime Dissolve Tank	CE 125.000: Scrubber	Lime	9 tons/hr	97-A-1096-S2

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 97-A-1096-S2 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.086 lb/hr Authority for Requirement: DNR Construction Permit 97-A-1096-S2

Pollutant: Particulate Matter Emission Limit(s): 3.49 tons/yr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 97-A-1096-S2 567 IAC 23.4(7)

Operational Limits & Requirements

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

Process throughput:

1. Emission point 125.000 is a member of the Itaconic Acid Process Group⁽²⁾. The processing rate of the Itaconic Acid Process Group shall be limited to 45 tons of itaconic acid product per day with compliance demonstrated on a 30-day rolling average basis.

⁽²⁾ This equipment is not currently in use. If the facility intends to re-start operation as part of the Citric Acid Group, a construction permit modification shall be obtained prior to start-up.

Control equipment parameters:

1. The control equipment shall be maintained according to manufacturer's specifications.

Reporting & Record keeping:

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

1. Maintain a 30-day rolling average of the processing rate of itaconic acid every day of operation.

2. Maintain a record of all maintenance and repairs made to the control equipment. Authority for Requirement: DNR Construction Permit 97-A-1096-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 138
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 500
Exhaust Temperature (°F): 120
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 97-A-1096-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 126.000

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
126.000	Lime Storage Silo	CE 126.000: Baghouse	Lime	9 tons/hr	97-A-1097-S2

Associated Equipment

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 97-A-1097-S2 567 IAC 23.3(2)"d"

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

Pollutant: PM₁₀ Emission Limit(s): 0.06 lb/hr Authority for Requirement: DNR Construction Permit 97-A-1097-S2

Pollutant: Particulate Matter Emission Limit(s): 1.3 tons/yr, 0.1 gr/dscf Authority for Requirement: DNR Construction Permit 97-A-1097-S2 567 IAC 23.4(7)

Operational Limits & Requirements

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

Process throughput:

1. Emission point 126.000 is a member of the Itaconic Acid Process Group⁽²⁾. The processing rate of the Itaconic Acid Process Group shall be limited to 45 tons of itaconic acid product per day with compliance demonstrated on a 30-day rolling average basis.

⁽²⁾ This equipment is not currently in use. If the facility intends to re-start operation as part of the Citric Acid Group, a construction permit modification shall be obtained prior to start-up.

Control equipment parameters:

1. The control equipment shall be maintained according to manufacturer's specifications.

Reporting & Record keeping:

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

1. Maintain a 30-day rolling average of the processing rate of itaconic acid every day of operation.

2. Maintain a record of all maintenance and repairs made to the control equipment. Authority for Requirement: DNR Construction Permit 97-A-1097-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 138
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): 703
Exhaust Temperature (°F): 200
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 97-A-1097-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

Emission Point ID Number: 172.000

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
172.000	Acidulants Fermenter V	Seed & Other	240,000 dscf/hr	05-A-786-S1

Applicable Requirements

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

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

Pollutant: Opacity Emission Limit(s): 40%⁽¹⁾ Authority for Requirement: DNR Construction Permit 05-A-786-S1 567 IAC 23.3(2)"d"

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

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 1.43 lb/hr, 50 ppmv Authority for Requirement: DNR Construction Permit 05-A-786-S1

Pollutant: Total HAP Emission Limit(s): 1.43 lb/hr, 50 ppmv Authority for Requirement: DNR Construction Permit 05-A-786-S1

Operational Limits & Requirements

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

Reporting & Record keeping:

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

1. For each change in product made in this vessel, record the date and time of the start of the initial batch along with the name of the product being produced.

Authority for Requirement: DNR Construction Permit 05-A-786-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 90 Stack Opening, (inches, dia.): 10 Exhaust Flow Rate (scfm): Varies up to 4,000 Exhaust Temperature (°F): 70-120 Discharge Style: Downward Authority for Requirement: DNR Construction Permit 05-A-786-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request 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 🖂

IV. General Conditions

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

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 567 IAC 22.108(9)"a"

2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. 567 IAC 22.105 (2)"h"(3)

3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. 567 IAC 22.108 (1)"b"

4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. 567 IAC 22.108 (14)

5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. 567 IAC 22.108 (9)"b"

6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. 567 IAC 22.108(15)"c"

G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*

2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permitting & Standards Branch, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

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

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:

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;
 Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 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 emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to

determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

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

i. The identity of the equipment or source operation from which the excess

emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

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

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction,

documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission

limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

G15. Permit Deviation Reporting Requirements

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

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

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

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

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

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);

c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);

d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));

e. The changes comply with all applicable requirements.

f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,

ii. The date on which the change will occur,

iii. Any change in emission as a result of that change,

iv. The pollutants emitted subject to the emissions trade

v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change. 567 IAC 22.110(1)

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC* 22.110(2)

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). 567 IAC 22.110(3)

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. 567 IAC 22.110(4)

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. 567 IAC 22.108(11)

G18. Duty to Modify a Title V Permit

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

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

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. 567 IAC 22.108(9)"c"

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is <u>not</u> required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is <u>not</u> required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original

permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is <u>not</u> required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. 567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
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 9th St. Des Moines, IA 50319-0034 (515) 725-9545

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

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

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. 567 IAC 26.1(1)

G32. Contacts List

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

Iowa Compliance Officer Air Branch Enforcement and Compliance Assurance Division U.S. EPA Region 7 11201 Renner Blvd. Lenexa, KS 66219 (913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau Iowa Department of Natural Resources Wallace State Office Building 502 E 9th St. Des Moines, IA 50319-0034 (515) 725-8200 Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1

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

Field Office 3

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

Field Office 5

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

Polk County Public Works Dept.

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

Field Office 2

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

Field Office 4

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

Field Office 6

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

Linn County Public Health

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

V. Appendix A Federal Emissions Standard Links

40 CFR 60 Subpart Db – Standards of Performance for Industrial –Commercial – Institutional Steam Generating Units https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Db

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 <u>https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Kb</u>

40 CFR 60 Subpart DD – Standards of Performance for Grain Elevators <u>https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-DD</u>

40 CFR 60 Subpart Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-VV

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 <u>https://www.ecfr.gov/current/title-40/part-60/subpart-VVa</u>

40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-JJJJ

40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing <u>https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-FFFF</u>

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/current/title-40/chapter-I/subchapter-C/part-63/subpart-DDDDD

40 CFR 63 Subpart GGGG: Solvent Extraction for Vegetable Oil Production https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-GGGG

40 CFR **63** Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines <u>https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ</u>