# Iowa Department of Natural Resources Title V Operating Permit

Name of Permitted Facility: Roquette America, Inc. Facility Location: 1003 S 5<sup>th</sup> Street, Keokuk, IA 52632 Air Quality Operating Permit Number: 08-TV-006R2

**Expiration Date: May 22, 2027** 

Permit Renewal Application Deadline: December 22, 2026

**EIQ Number: 92-2568** 

Facility File Number: 56-01-009

#### **Responsible Official**

Name: Michael McHale Title: Plant Manager

Mailing Address: 1003 S 5<sup>th</sup> St, Keokuk, IA 52632

Phone #: (319) 526-3200

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

Name: Ron Schmitt

**Title: Managing Consultant** 

Mailing Address: P.O. Box 6647, Keokuk, IA 52632

Phone #: (319) 526-3503

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

Marrie Stein

05/23/2022

Marnie Stein, Supervisor of Air Operating Permits Section

Date

# **Table of Contents**

I.	Facility Description and Equipment List4
II.	Plant - Wide Conditions
III.	Emission Point Specific Conditions
IV.	General Conditions
	G1. Duty to Comply
	G2. Permit Expiration
	G3. Certification Requirement for Title V Related Documents
	G4. Annual Compliance Certification
	G5. Semi-Annual Monitoring Report
	G6. Annual Fee
	G7. Inspection of Premises, Records, Equipment, Methods and Discharges
	G8. Duty to Provide Information
	G9. General Maintenance and Repair Duties
	G10. Recordkeeping Requirements for Compliance Monitoring
	G11. Evidence used in establishing that a violation has or is occurring.
	G12. Prevention of Accidental Release: Risk Management Plan Notification and
	Compliance Certification
	G13. Hazardous Release
	G14. Excess Emissions and Excess Emissions Reporting Requirements
	G15. Permit Deviation Reporting Requirements
	G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP
	Regulations
	G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V
	Permit Modification
	G18. Duty to Modify a Title V Permit
	G19. Duty to Obtain Construction Permits
	G20. Asbestos
	G21. Open Burning
	G22. Acid Rain (Title IV) Emissions Allowances
	G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements
	G24. Permit Reopenings
	G25. Permit Shield
	G26. Severability
	G27. Property Rights
	G28. Transferability
	G29. Disclaimer
	G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
	G31. Prevention of Air Pollution Emergency Episodes
<b>T</b> 7	G32. Contacts List
V	/A DDADIUS

### **Abbreviations**

acfm	actual cubic feet per minute
CFR	Code of Federal Regulation
CE	
	continuous emission monitor
°F	degrees Fahrenheit
EIQ	emissions inventory questionnaire
EP	
EU	emission unit
gr./dscf	grains per dry standard cubic foot
	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
MVAC	motor vehicle air conditioner
NAICS	North American Industry Classification System
NSPS	new source performance standard
ppmv	parts per million by volume
1b/hr	
lb./MMBtu	pounds per million British thermal units
SCC	Source Classification Codes
scfm	standard cubic feet per minute
	Standard Industrial Classification
TPY	tons per year
USEPA	United States Environmental Protection Agency
Pollutants	
PM	
PM10	particulate matter ten microns or less in diameter
SO <sub>2</sub>	
$NO_x \dots \dots$	nitrogen oxides
	volatile organic compound
CO	carbon monoxide
HAP	hazardous air pollutant
GHG	Greenhouse Gasses

3

# I. Facility Description and Equipment List

Facility Name: Roquette America, Inc.

Permit Number: 08-TV-006R2

Facility Description: Wet Corn Milling (SIC 2046)

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
	•	Barge Terminal	
67-F-3	BT-12	Barge Loading Conveyor	NA
67-F-4	BT-13	Barge Filling	NA
		<b>Bulk Chemical Storage</b>	
71-4	BCS-4	Sulfur Burner/Sulfurous Acid Production	08-A-312-S1
/1-4	BCS-4A	Railcar Vent	06-A-312-31
	BCS-1	HCl Storage Tank Working And Breathing Losses	
71-5	BCS-2	HCl Storage Tank Working And Breathing Losses	03-A-026-S5
	BCS-3A	HCl Storage Tank Working And Breathing Losses	
		<u>Elevator</u>	
58-3	EL-4	Surge Bin	81-A-148-S1
	EL-10	Rail Dump Pit	
58-5	EL-11	Upriver Truck Dump Pit	84-A-029-S2
	EL-15	Corn Screenings Loadout	
58-F-4	EL-11	Upriver Truck Dump Pit Fugitives	NA
58-F-5	EL-10	Rail Dump Pit Fugitives	NA
58-F-6	EL-15	Corn Screenings Loadout Fugitives	NA
58-8	EL-5	Vacuum System	NA
58-11	EL-2	Upriver Dump Pit Belt Legs	83-A-151-S1
58-14	EL-6	Elevator Downriver Grain Receiving	81-A-147-S1
58-F-1	EL-7	Corn Conveying	03-A-041
58-F-2	EL-12	Downriver Belly Dump Pit	NA
58-F-3	EL-14	Overhead Belt Conveyor	03-A-040
58-2/P	EL-9	Elevator Exhaust Vents	NA
58-R/BA	EL-8	Corn Bins #14-30, 49-66	NA

Emission Point ID	Emission Unit ID	<b>Emission Unit Description</b>	DNR Construction Permit ID		
		<u>Feedhouse</u>			
51-4	FH-1	Gluten Ring Dryer	01-A-366		
51-5	FH-2	Gluten Meal Cooling	01-A-367-S2		
59-B7	FH-32	Fiber Press	NA		
59C-F-1	FH-30	Rail Car Loading	NA		
74-E	FH-31	Fiber Press	82-A-071		
138-04	FH-05N	Hammer Mill	11-A-061-S1		
	FH-08N	#4 Pellet Cooler			
138-06	FH-09N	#3 Pellet Cooler	11-A-062-S2		
	FH-43N	Dry Feed Pneumatic Conveyor			
138-10	FH-31N	Hammer Mill	13-A-034		
	FH-32N	Pellet Cooler Bucket Elevator (LC51)			
	FH-33N	Bucket Elevator (MX53)			
	FH-34N	Conveyor (MX54)			
	FH-35N	Bucket Elevator (MX55)			
138-11	FH-36N	Conveyor (MP52)	13-A-035		
	FH-37N	Conveyor (MP53)			
	FH-38N	Conveyor (MP54)			
	FH-39N	Conveyor (MP55)			
	FH-40N	Silo (M100)			
138-12	FH-44	Receiver	16-A-431		
139-1	FH-10N	Fiber Steam Tube Dryer, 2 Stages	11-A-066-S1		
139-2	FH-10N	Fiber Steam Tube Dryer, 2 Stages Bypass	11-A-067-S2		
140-1	FH-41N	Gluten Truck Loadout	11-A-068-S1		
140-1	FH-42N	Pellet Truck Loadout	11-A-008-51		
140-2	FH-13N	#1 Pellet Loadout Bin	11-A-069-S1		
140-3	FH-14N	#2 Pellet Loadout Bin	11-A-070-S1		
140-4	FH-15N	Gluten Loadout Bin	11-A-071-S2		
	<u>Generators</u>				
110-2	RF-12	Emergency Generator	15-A-502		
EG-2	EG-2	Emergency Generator	NA		
EG-3	EG-3	Emergency Generator	NA		
GH-1	GH-1	Emergency Generator	NA		
GH-2	GH-2	Emergency Generator	15-A-607		
82A-1	RE-4	Emergency Generator	NA		
66-T	RC-09	Engine Generator	NA		
66-U	RC-17	Diesel Engine	NA		

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
		<u>Germ</u>	
	G-4	#4 Germ Dryer	
12-6	G-5	#5 Germ Dryer	09-A-044
	G-6	#6 Germ Dryer	
12-8	G-2	#2 Germ Dryer	77-A-334-S1
12-0	G-3	#3 Germ Dryer	//-A-334-31
12-13	G-12	Germ Transfer	01-A-059
	G-1	#1 Germ Dryer	
12-14	G-7	#7 Germ Dryer	09-A-045
	G-8	Germ Cooler	
		<u>Mill</u>	
7/8/9/10	M-1	Mill House Exhaust Vents	NA
7-3	M-2	17 Steep Tanks	10-A-216-S2
	M-5A	5 <sup>th</sup> Fiber Wash Tank	
7-16	M-5B	2 <sup>nd</sup> Grind Pit	09-A-463-S4
	M-5C	3 <sup>rd</sup> Grind Pits	
8-5	M-6	Fiber Wash Tanks & Filtrate Tank	09-A-468-S2
8-8	M-4	Wet Corn Hopper Room	09-A-462-S2
	M-66	Steeping	
	M-67	Steeping	
	M-68	Steeping	
02.1	M-69	Steeping	04 4 662 62
83-1	M-74	Steeping	04-A-663-S2
	M-75	Steeping	
	M-76	Steeping	
	M-77	Steeping	
	•	RASI	•
200	200	Clamshell #1 To Hopper #1	10-A-286-S1
201	201	Hopper #1 To Conveyor #1	10-A-287-S1
202	202	Conveyor #1 To Conveyor #2	10-A-288-S1
203	203	Conveyor #2 To Conveyor #3	10-A-289-S1
204	204	Conveyor #3 To Conveyor #4	10-A-290-S1
205	205	Conveyor #4 To Stacker	10-A-291-S1
206	206	Stacker To Coal Pile	10-A-292-S1
207	207	Coal/Coke Pile Receiving	10-A-297-S1
208	208	Coal/Coke Loader To Trucks	10-A-295-S1
209	209	Salt Loader To Trucks	10-A-296-S1
210	210	East Haul Road Traffic	10-A-298-S1
211	211	West Haul Road Traffic	10-A-299-S1
213	213	Coal/Coke Pile	10-A-293

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
		RASI	·
214	214	Salt Pile	10-A-294
215	215	Coal/Coke Pile	11-A-452
		Refineries A&B	
7-21	AB-2	Carbon Receiver Tank	96-A-1038-S4
16-26	AB-19	Sodium Bisulfate Tank	97-A-665
16-31	AB-3	Syrup Spray Dryer	75-A-179-S1
16-34	AB-21	DE Bulk Bag System	01-A-024-S1
10.1	AB-22	Bag Packager	02 A 150 C2
19-1	AB-24	Bagger	02-A-158-S2
19-2	19-2	Bag Handling System	10-A-478
C1 A	AB-4A	B Syrup Spray Dryer	72 A 200 G2
64-A	AB-4B	B Syrup Spray Dryer Burner	73-A-208-S3
		Refinery C	<u> </u>
66-18	RC-2	Carbon Regeneration Furnace #1	77-A-149-S6
66-21	RC-5	Soda Ash Storage	97-A-599
66-27	RC-3	Filter Aid Storage	77-A-331
66-37	RC-16	Carbon Regeneration Furnace #2	01-A-086-S1
		Refinery D	
84-D	RD-1	Refinery D House Vacuum System	94-A-602
	RD-2	Drying	
84-10	RD-3	Dedusting	94-A-603-S1
	RD-4	Reclaim Tank	
		Refinery E	·
82-1	RE-1	DE Unloading	02-A-561-S1
82-2	RE-2	DE Silo Fluidizer	02-A-562-S1
82-3	RE-3	DE Transfer System	02-A-563
		Refinery F	
103-1	RF-17	DE Unloading and Storage	10-A-232
103-2	RF-18	DE Transfer	10-A-233
	RF-4	Tank	
	RF-4B	Tank	
107-1	RF-5	Tank	99-A-083-S7
	RF-6	Dryer	
	RF-7	Cooler	
	RF-8	Grinder	
107.0	RF-9	12 Dedusting Pickup Points	00 4 004 06
107-2	RF-10	House Vacuum w/ 20 Pickup Points	99-A-084-S6
	RF-14	Powder Blending	

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
		Refinery F	
107-3	RF-15	Carbohydrate Transfer System	10-A-235-S1
	RF-20A	Tank	
	RF-20B	Tank	
107-4	RF-20C	Tank	10-A-236-S1
	RF-21	Tank	
	RF-22	Dryer	
107-5	RF-23	Carbohydrate Cooler	10-A-237
107-6	RF-25	Carbohydrate Dryer	10-A-238
107-7	RF-26	Carbohydrate Cooler	10-A-239
107-8	RF-27	Carbohydrate Grinder	10-A-240
107.0	RF-28	Dedusting	10 4 241
107-9	RF-30	Packaging	10-A-241
107-10	RF-29	House Vacuum	10-A-242
107-B	RF-24	Carbohydrate Remelt Tank	10-A-243-S1
107-C	RF-31	Carbohydrate Remelt Tank	10-A-244
108-1	RF-3	Ethanol Storage Tank	99-A-082
108-2	RF-3B	Ethanol Storage Tank	10-A-245
	RF-11	Manual Additive Hopper/Feeder	
109-1	RF-13	Dedusting System 2	01-A-880-S2
	RF-16	House Vacuum	
	•	Roads	1
P-F-1	PLN-1	Plant Roads and Parking Lots	NA
		<u>Starch</u>	1
20-A-3-1	ST-20	Pneu-Vac Blower System	09-A-710-S1
20-A-5	ST-03	#3 Bin Storage	NA
20-A-7	ST-04	#4 Bin Storage	NA
20-A-9	ST-05	#5 Bin Storage	NA
20-A-11	ST-06	#6 Bin Storage	NA
20-A-13	ST-07	#7 Bin Storage	13-A-073
20-A-15	ST-08	#8 Bin Storage	98-A-376-S2
20-A-17	ST-09	#9 Bin Storage	98-A-377-S2
61-1	ST-17	#2 P&M Starch Dryer	01-A-1031-S1
61-4	ST-18	Corn Starch Flash Dryer #1	09-A-633
61-3 61-5	ST-24	Building #61 Exhaust Vents	NA
63-1	ST-23	Palletizer	NA

Emission Point ID	Emission Unit ID	<b>Emission Unit Description</b>	DNR Construction Permit ID
		<u>Starch</u>	
63-2	ST-19	House Vacuum	NA
63-4	ST-10	Bulk Starch Loadout	82-A-075
63-5	ST-11	#1 Packing Room (Bagging)	NA
63-6	ST-12	#1 Starch Storage/Packing Bin	NA
63-7	ST-13	#2 Starch Storage Bin	78-A-179
63-8	ST-14	Bagging Room	85-A-093
63-10	ST-15	#12 Starch Bin	81-A-152-S1
63-12	ST-16	Reclaim Starch System	89-A-071
		Steam & Co-Gen	
112	112	Waste Heat Boiler	08-A-280-S3
121	121	CFB Boiler	06-A-518-P2
	122	Crusher #1	
100	122a	Receiving Hopper #1	06 4 510 62
122	122b	Receiving Conveyor #1	06-A-519-S2
	122c	Receiving Bucket Elevator #1	
	123	Crusher #2	
100	123a	Receiving Hopper #2	06-A-520-S2
123	123b	Receiving Conveyor #2	
	123c	Receiving Bucket Elevator #2	
125	125	Limestone Storage Silo #1	06-A-522-S2
125B	125B	Limestone Storage Silo #2	07-A-1560-S1
126	126	Ash Silo Conveying System	06-A-523-S2
126B	126B	Ash Silo Conveying System	07-A-1561-S1
126C	126C	Ash Silo Conveying System	07-A-1562-S1
126D	126D	Ash Silo Conveying System	07-A-1563-S1
127	127	Ash Silo Bin Vent	06-A-524-S1
129	129	Belt Conveyor	06-A-526-S2
131	131	Bunker #1	06-A-528-S2
132	132	Bunker #2	06-A-529-S2
133	133	Bunker #3	06-A-530-S2
	135	Drag Feed Conveyor	
135	135B	Limestone Conveyor Receiving	06-A-532-S2
200-1	CG-3	Dew Point Heater	02-A-694-P1
201-1	CG-4	Diesel Starting Engine	02-A-695-P3
201-2	CG-2	Combustion Turbine, Simple Cycle	02-A-693-P1
201-5	201-5	Package Boiler	12-A-200-S2
201-6	201-6	Package Boiler	12-A-201-S2
201-8	201-8	Package Boiler	12-A-202-S2
202-1	CG-1	Combustion Turbine/Duct Burner, Combined Cycle	02-A-692-P2

9

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
		<u>WMD</u>	
11-1/3/12	WMD-09	WMD Exhaust Vents	NA
11-13	WMD-05	Reclaim Starch	98-A-374
		<u>Wastewater</u>	
71-2	WW-01	Lime Storage Silo #1	89-A-053-S1
71-8	WW-04	#1 Aeration	NA
71-9	WW-05	#2 Aeration	NA
71-10	WW-07	Lime Storage Silo #2	09-A-282
71-11	WW-06	#3 Surge & Equalization	NA

### **Insignificant Activities Equipment List**

Insignificant	Insignificant Emission Unit Description
Emission Unit ID AB-11	Dilute HCl Acid Tank
AB-11 AB-12	
AB-12 AB-13	IX HCl Acid Day Tank
AB-13 AB-20	Spent Carbon Truck Loading Carbon Tank Dump Station
AB-20 AB-5	HCl Measuring CSU Sacch. Tank
AB-6	
AB-0 AB-7	Carbon Bag Dump
BCS-5	HCl Measuring Tube "A"
FH-29	HCl Unloading Feedhouse Exhaust Vents
G-10	
	#2 MR
G-11	#1 MR
G-13	Upriver Loadout Hose
G-14	Downriver Loadout Hose
G-15	Mud Tank
G-16	HSW Tank
G-19	B&K Flash Cooler
G-21	Hot Condensate Tank
G-9	Zaremba Evap. Vacuum Jet
INS-1	Diatomaceous Earth Loadout
INS-2	Maintenance Welding
INS-3	3 Aeration Tanks
INS-4	Surge Equalization Tanks
LR-1	Air Makeup Heater (0.5 MMBtu/hr.)
LR-2	Upriver Heater (0.1 MMBtu/hr.)
LR-3	Down River Heater (0.1 MMBtu/hr.)
LR-4	Water Heater (0.3 MMBtu/hr.)
MN-1	Aerosol Painting Room Vent
RC-1	HCl Day Tank
RC-12	HCl Unloading
RC-6	HCl Day Tank
RF-1	HCl Day Tank
WMD-6	Upriver Tank Vent
WMD-7	Downriver Tank Vent
WMD-8	WMD Chemical Room
RC-21	Storage Tank
RC-22	Storage Tank
RC-23	Storage Tank
RC-24	Storage Tank
51-1	Gluten RVF Drum Ventilation
51-2	Gluten RVF Drum Ventilation

### **Insignificant Activities Equipment List**

Insignificant Emission Unit ID	Insignificant Emission Unit Description
ET-11	Downriver Cooling Tower
ET-12	Upriver Cooling Tower
ET-13	Cooling Tower
RC-10	#2 Roof Cooling Tower
RC-11	#1 Ground Cooling Tower
RC-13	#3 Cooling Tower
RC-14	#4 Cooling Tower
RF-T101	Cooling Tower – Tower 1
RF-T102	Cooling Tower – Tower 1
RF-T201	Cooling Tower – Tower 2
RF-T202	Cooling Tower – Tower 2
RF-T203	Cooling Tower – Tower 2
RF-T204	Cooling Tower – Tower 2
RF-T205	Cooling Tower – Tower 2
106-1	Refinery Cooling Tower
WWTP-1	WW Treatment Plant Cooling Tower
17-1	Refinery AB CSV Manual Packing
BT-16	Loadout truck into Masaba hopper
BT-17	Transfer - Hopper to Masaba belt
BT-18	Transfer - Masaba belt onto Barge Loading Belt

#### **II. Plant-Wide Conditions**

Facility Name: Roquette America, Inc.

Permit Number: 08-TV-006R2

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: May 23, 2022

Ending on: May 22, 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:

Opacity (visible emissions): 40% opacity

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

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

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

#### Particulate Matter:

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

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

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

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

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

J 1

#### **Facility-Wide Limits**

#### **Process Throughput:**

1. The grind rate for the facility (plant number 56-01-009) shall not exceed 46.556 million bushels per 12-month rolling period.

#### Reporting & Record keeping:

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

1. Determine the cumulative amount of grind (in bushels/yr) for the facility (plant number 56-01-009) on a rolling-12-month basis for each month of operation.

Authority for Requirement: DNR Construction Permits 01-A-366, 01-A-367-S2

14

#### New Source Performance Standard (NSPS) Applicability

Sources located at this facility are subject to the New Source Performance Standard (NSPS) for Grain Elevators (40 CFR 60 Subpart DD).

Authority for Requirement: 40 CFR 60 Subpart DD

Sources located at this facility are subject to the New Source Performance Standard (NSPS) Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generation Units; 40 CFR §60.40c – 40 CFR §60.48c).

Authority for Requirement: 40 CFR 60 Subpart Dc

Sources located at this facility are subject to the New Source Performance Standard (NSPS) Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [567 IAC 23.1(2)"ccc"].

Authority for Requirement: 40 CFR 60 Subpart Db

Sources located at this facility are subject to the New Source Performance Standard (NSPS) Subpart Y (Standards of Performance for Coal Preparation Plants, 40 CFR §60.250 – 40 CFR §60.254).

Authority for Requirement: 40 CFR 60 Subpart Y

Sources located at this facility are subject to the New Source Performance Standard (NSPS) Subpart GG

- Standards of Performance for Stationary Gas Turbines

Authority for Requirement: 40 CFR 60 Subpart GG

#### National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability

Sources located at this facility are subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

Sources located at this facility are subject to the requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (40 CFR 63 Subpart ZZZZ; 567 IAC 23.1(4)"cz"). See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

Sources located at this facility are subject to 40 CFR 63 Subpart YYYY – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Stationary Combustion Turbines. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart YYYY

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

Facility Name: Roquette America, Inc. Permit Number: **08-TV-006R2** 

### **Barge Terminal Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
67-F-3	BT-12	Barge Loading Conveyor	NA
67-F-4	BT-13	Barge Filling	NA

Emission Point ID Numbers: 67-F-3, 67-F-4

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
67-F-3	BT-12	Barge Loading Conveyor	NA	Pellets/Grain	600 tons/hr	NA
67-F-4	BT-13	Barge Filling	NA	Pellets/Grain	600 tons/hr	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 23.4(7)

#### **Monitoring Requirements**

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

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

# **Bulk Chemical Storage Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
71-4	BCS-4	Sulfur Burner/Sulfurous Acid Production	08-A-312-S1
/ 1 <del>- 4</del>	BCS-4A Railcar Vent		00-A-312-31
	BCS-1	HCl Storage Tank Working And Breathing Losses	
71-5	BCS-2	HCl Storage Tank Working And Breathing Losses	03-A-026-S5
	BCS-3A	HCl Storage Tank Working And Breathing Losses	

#### **Emission Point ID Number: 71-4**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
BCS-4	Sulfur Burner/Sulfurous Acid Production	BCS-4:	Sulfur	0.15	08-A-312-S1
BCS-4A	Rail Car Vent	Scrubber		tons/hr	

### **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 08-A-312-S1

567 IAC 23.3(2)"d"

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

Authority for Requirement: DNR Construction Permit 08-A-312-S1

567 IAC 23.3(2)"a"

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

Authority for Requirement: DNR Construction Permit 08-A-312-S1

567 IAC 23.3(2)"e"

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

#### **Operating Limits:**

- 1. Packed Bed Scrubber (BCS-4) scrubbant flowrate shall be maintained within appropriate range as specified by manufacturer or operator.
- 2. Packed Bed Scrubber (BCS-4) scrubbant pH shall be maintained within appropriate range as specified by manufacturer or operator
- 3. Maintain Packed Bed Scrubber (BCS-4) according to manufacturer specifications and maintenance schedule.

#### **Operating Condition Monitoring:**

- 1. The permittee shall collect and record the scrubbant flowrate of the Packed Bed Scrubber (BCS-4) in gallons per minute on a continuous basis.
- 2. The permittee shall collect and record the pH of the scrubbant in the Packed Bed Scrubber (BCS-4) in standard units, at least twice per day.
- 3. The permittee shall maintain a record of the minimum scrubbant flowrate and maximum scrubbant flowrate as recommended by the manufacturer or operator for Packed Bed Scrubber (BCS-4) in gallons per minute.
- 4. The permittee shall maintain a record of the minimum scrubbant pH and maximum scrubbant pH in standard units as recommended by the manufacturer or operator for Packed Bed Scrubber (BCS-4).
- 5. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Packed Bed Scrubber (BCS-4).

Authority for Requirement: DNR Construction Permit 08-A-312-S1

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 38.6

Stack Opening, (inches, dia.): 8 Exhaust Flow Rate (scfm): 550 Exhaust Temperature (°F): 100

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 08-A-312-S1

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?  Operating Condition Monitoring satisfies CAM requirements, additional CAM Plan not necessary.	Yes 🛛 No 🗌

#### **Emission Point ID Number: 71-5**

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Storage	Construction
Unit	Description	Equipment	Material	Capacity	Permit
BCS-1	HCl Storage Tank Working And Breathing Losses		HC1	36,800 gallons, 10,000 gal/hr fill rate	
BCS-2	HCl Storage Tank Working And Breathing Losses	CE 71-5: Packed Bed Scrubber	HC1	36,800 gallons, 10,000 gal/hr fill rate	03-A-026-S5
BCS-3A	HCl Storage Tank Working And Breathing Losses		HC1	36,800 gallons, 10,000 gal/hr fill rate	

#### **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 03-A-026-S5

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 1.90 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-026-S5

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

Authority for Requirement: DNR Construction Permit 03-A-026-S5

567 IAC 23.3(2)"a"

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. These emission units (EUs BCS-1, BCS-2 and BCS-3A) are limited to storing hydrochloric acid only.
- 2. The owner or operator shall maintain Safety Data Sheets (SDS) of all materials stored in these emission units (EUs BCS-1, BCS-2 and BCS-3A).
- 3. The Packed Bed Scrubber (CE 71-5) liquor flowrate shall be maintained within range as specified by manufacturer or operator.
- 4. The permittee shall maintain a record of the minimum liquor flowrate and maximum liquor flowrate as recommended by the manufacturer or operator for Packed Bed Scrubber (CE 71-5) in gallons per minute.
- 5. The owner or operator shall collect and record the liquor flowrate of the Packed Bed Scrubber (CE 71-5) in gallons per minute on a continuous basis.
- 6. The Packed Bed Scrubber (CE 71-5) liquor pH shall be maintained within range as specified by manufacturer or operator.
- 7. The permittee shall maintain a record of the minimum liquor pH and maximum liquor pH in standard units as recommended by the manufacturer or operator for Packed Bed Scrubber (CE 71-5).
- 8. The permittee shall collect and record the pH of the liquor in the Packed Bed Scrubber (BCS-1) in standard units, at least twice per day.
- 9. The Packed Bed Scrubber (CE 71-5) shall be inspected and maintained according to manufacturer's specifications and maintenance schedule.
- 10. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Packed Bed Scrubber (CE 71-5).

Authority for Requirement: DNR Construction Permit 03-A-026-S5

#### **Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 16 Exhaust Flow Rate (scfm): 3,500 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 03-A-026-S5

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

#### **Monitoring Requirements**

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

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

24

# **Elevator Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
58-3	EL-4	Surge Bin	81-A-148-S1
	EL-10	Rail Dump Pit	
58-5	EL-11	Upriver Truck Dump Pit	84-A-029-S2
	EL-15	Corn Screenings Loadout	
58-F-4	EL-11	Upriver Truck Dump Pit Fugitives	NA
58-F-5	EL-10	Rail Dump Pit Fugitives	NA
58-F-6	EL-15	Corn Screenings Loadout Fuigitives	NA
58-8	EL-5	Vacuum System	NA
58-11	EL-2	Upriver Dump Pit Belt Legs	83-A-151-S1
58-14	EL-6	Elevator Downriver Grain Receiving	81-A-147-S1
58-F-1	EL-7	Corn Conveying	03-A-041
58-F-2	EL-12	Downriver Belly Dump Pit	NA
58-F-3	EL-14	Overhead Belt Conveyor	03-A-040
58-2/P	EL-9	Elevator Exhaust Vents	NA
58-R/BA	EL-8	Corn Bins #14-30, 49-66	NA

#### **Emission Point ID Number: 58-3**

#### Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EL-4	Surge Bin	EL-4: Baghouse	Corn	5 tons/hr	81-A-148-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 (Federal) Emission Limit(s): 0%

Authority for Requirement: 567 IAC 23.1(2)"ooo"

Pollutant: Opacity (State) Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 81-A-148-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.03 lb/hr

Authority for Requirement: DNR Construction Permit 81-A-148-S1

Pollutant: Particulate Matter (Federal)

Emission Limit(s): 0.01 gr/dscf

Authority for Requirement: 567 IAC 23.1(2)"ooo"

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

Authority for Requirement: DNR Construction Permit 81-A-148-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): 30 Stack Opening, (inches): 3.5 x 3.5 Exhaust Flow Rate (acfm): 180 Exhaust Temperature (°F): 70

Discharge Style: NA

Authority for Requirement: DNR Construction Permit 81-A-148-S1

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

#### **Monitoring Requirements**

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

#### **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 L No M
Facility Maintained Operation & Maintenance Plan Required?	Yes 🛛 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes No 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: 58-5**

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
EL-10	Rail Dump Pit	CE EL-1: #2	Corn	840 tons/hr	
EL-11	Upriver Truck Dump Pit	MAC Dust	Corn	840 tons/hr	84-A-029-S2
EL-15	Corn Screenings Loadout	Collector	Corn	3,500 bushels/hr	

#### **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 84-A-029-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 21.54 lb/hr., 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 84-A-029-S2

567 IAC 23.4(7)

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 2. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 84-A-029-S2

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

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 66

Stack Opening, (inches, dia.): 48 Exhaust Flow Rate (scfm): 33,625 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 84-A-029-S2

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

#### **Monitoring Requirements**

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

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

#### Compliance Assurance Monitoring Plan CAM Plan for EP 58-5; Baghouse (EL-1) and EP 58-F-5

#### I. Background

A. Emissions Units

Emission Point Description: Upriver Phase II MAC Dust Collector (58-5)

Emission Unit Description: Upriver Truck Dump Pit (EL-11)

Rail Pit (EL-10)

Corn Screening Loadout (EL-15)

Identification: EL-11, EL-10, EL-15 Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: DNR Construction Permit 84-A-029-S2 for

EP 58-5

Particulate emission limit: PM: 21.54 lb/hr

Opacity emission limit: 40%

Current Monitoring requirements: Weekly opacity (NVE) checks

C. Control Technology: Baghouse

#### II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1. EP 58-5 and EP 58-F-5 represent emissions from the Upriver Truck Dump Pit (EL-11), the Rail Dump Pit (EU-10) and the Corn Screenings Loadout (EL-15). Uncontrolled emissions from the Emission Units are captured (90% capture rate) and routed through a baghouse (EL-1). The baghouse (EL-1) also receives exhaust from several insignificant sources. EP 58-F-5 was created intending to represent fugitive emissions that are not captured (conservatively estimated at 10% of total emissions) for emission inventory purposes. This CAM plan incorporates both emission points.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

**Table 1. Monitoring Approach** 

General Criteria	
I. Indicator	Differential pressure across the control device
Measurement Approach	Differential pressure measured across the control device by a differential pressure gauge.
II. Indicator Range	The facility shall provide applicable indicator pressure drop range to the Department within 180 days of permit issuance. (1) -OR-
	Pressure drop will be checked daily when operating to ensure that the pressure drop is in the range of 0.5 to 6.0 inches of water during operation of the unit, except during periods of startup, shutdown, or cleaning of control equipment.
QIP Threshold	The QIP threshold is 6 excursions in a 6 month period.
III. Performance Criteria	
A. Data Representativeness	Pressure drop less than 0.5 inches of water or greater than 6.0 inches of water would indicate decrease in the performance the baghouse and potentially indicate an increase of particulate emissions.
B. Verification of Operational Status	Records of pressure drop readings will be maintained for five years.
C. QA/QC Practices and Criteria	Pressure gauges will be maintained using procedures that take into account manufacturer's specifications. Baghouse will be maintained as specified in Title V permit.
D. Monitoring Frequency	The pressure drop readings shall be conducted daily during a period when the emission unit on this emission point is in operation.
	If pressure drop falls out of the range specified above, corrective action shall be taken as soon as possible, but no later than eight hours from observation.
E. Data Collection Procedures	Electronic or hard copy of daily differential pressure readings will be available upon request. Corrective actions resulting from excursions will be recorded.
IV. Justification	Pressure differential was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal PM control performance.

<sup>(1) 40</sup> CFR 64.4"e"

**Emission Point ID Numbers: 58-F-4, 58-F-5, 58-F-6** 

#### Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
58-F-4	EL-11	Upriver Truck Dump Pit Fugitives	Corn	840 tons/hr	NA
58-F-5	EL-10	Rail Dump Pit Fugitives	Corn	840 tons/hr	NA
58-F-6	EL-15	Corn Screenings Loadout Fugitives	Corn	840 tons/hr	NA

### **Applicable Requirements**

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

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

Pollutant: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

#### **Monitoring Requirements**

$Th_{o}$	owner/operator	of this	ominmont	chall	compl	h, with	the	monitoring	requirements	listed	helow
Ine	owner/onerator	oi mus	eaummeni	Snau	COMIDI	v wiin	ine	e monuoring	reaurements	usiea	neiow.

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

**Emission Point ID Number: 58-8** 

#### **Associated Equipment**

Emission	n Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
EL-5	Vacuum System	EL-5: Baghouse	Corn Dust	1 ton/hr	NA

#### **Applicable Requirements**

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

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

Pollutant: Opacity	
Emission Limit(s):	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 23.4(7)

#### **Monitoring Requirements**

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

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

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: 58-11**

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
EL-2	Upriver Dump Pit Belt Legs	EL-2: #1 MAC Dust Collector	Corn	840 tons/hr	83-A-151-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 83-A-151-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 21.05 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 83-A-151-S1

567 IAC 23.4(7)

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 2. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 83-A-151-S1

<sup>(1)</sup> 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).

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 66 Stack Opening, (inches, dia.): 48 Exhaust Flow Rate (scfm): 33,500 Exhaust Temperature (°F): 80

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 83-A-151-S1

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

#### **Monitoring Requirements**

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

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

36

# Compliance Assurance Monitoring Plan CAM Plan for EP 58-11; Baghouse (EL-2) and EP 58-F-4

# I. Background

A. Emissions Units

Description: Downriver Phase I MAC Dust Collector

Identification: EL-2

Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: DNR Construction Permit 83-A-151-S1 for

EP 58-11

Particulate emission limit: PM: 21.05 lb/hr

Opacity emission limit: 40%

Current Monitoring requirements: Weekly opacity (NVE) checks

C. Control Technology: Baghouse

# II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1. EP 58-11 and EP 58-F-4 represent emissions from the same source, the Upriver Truck Dump Pit. Uncontrolled emissions from the Upriver Truck Dump Pit are captured (90% capture rate) and routed through a baghouse (EL-2). The baghouse (EL-2) also receives exhaust from several insignificant sources. EP 58-F-4 was created intending to represent fugitive emissions that are not captured (conservatively estimated at 10% of total emissions) for emission inventory purposes. This CAM plan incorporates both emission points.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

**Table 1. Monitoring Approach** 

General Criteria	
I. Indicator	Differential pressure across the control device
Measurement Approach	Differential pressure measured across the control device by a differential pressure gauge.
II. Indicator Range	The facility shall provide applicable indicator pressure drop range to the Department within 180 days of permit issuance. (1)  -OR-
	Pressure drop will be checked daily when operating to ensure that the pressure drop is in the range of 0.5 to 6.0 inches of water during operation of the unit, except during periods of startup, shutdown, or cleaning of control equipment.
QIP Threshold	The QIP threshold is 6 excursions in a 6 month period. (Most have QIP threshold as six excursions in a six month period.
III. Performance Criteria	
A. Data Representativeness	Pressure drop less than 0.5 inches of water or greater than 6.0 inches of water would indicate decrease in the performance the baghouse and potentially indicate an increase of particulate emissions.
B. Verification of Operational Status	Records of pressure drop readings will be maintained for five years.
C. QA/QC Practices and Criteria	Pressure gauges will be maintained using procedures that take into account manufacturer's specifications. Baghouse will be maintained as specified in Title V permit.
D. Monitoring Frequency	The pressure drop readings shall be conducted daily during a period when the emission unit on this emission point is in operation.
	If pressure drop falls out of the range specified above, corrective action shall be taken as soon as possible, but no later than eight hours from observation.
E. Data Collection Procedures	Electronic or hard copy of daily differential pressure readings will be available upon request.
	Corrective actions resulting from excursions will be recorded.
IV. Justification	Pressure differential was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal PM control performance.

(1) 40 CFR 64.4"e"

38

#### **Emission Point ID Number: 58-14**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
EL-6	Elevator Downriver Grain Receiving	EL-6: Baghouse	Corn	170 tons/hr	81-A-147-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): 0%

Authority for Requirement: DNR Construction Permit 81-A-147-S1

567 IAC 23.1(2)"ooo"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.52 lb/hr

Authority for Requirement: DNR Construction Permit 81-A-147-S1

Pollutant: Particulate Matter (State) Emission Limit(s): 5.57 lb/hr

Authority for Requirement: DNR Construction Permit 81-A-147-S1

Pollutant: Particulate Matter (Federal) Emission Limit(s): 0.01 gr/dscf, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 81-A-147-S1

567 IAC 23.1(2)"ooo" 567 IAC 23.4(7)

#### New Source Performance Standard (NSPS) Applicability:

This equipment is subject to the New Source Performance Standard (NSPS) for Grain Elevators (40 CFR 60 Subpart DD).

Authority for Requirement: 40 CFR 60 Subpart DD

567 IAC 23.1(2)"ooo"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput of this equipment shall not exceed 170 tons per hour.
- 2. At the end of each day, record the amount, in tons, of material processed by this equipment of the previous day.
- 3. At the end of each day, record the number of hours this equipment operated over the previous day.
- 4. For each day, calculate the daily average hourly production rate by dividing the amount of material processed on that day by the number of hours this equipment operated on that day. This calculation shall be performed no later than 7 days after the end of the month.

Authority for Requirement: DNR Construction Permit 81-A-147-S1

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 31 Stack Opening, (inches): 36 x 24 Exhaust Flow Rate (scfm): 20,500

Exhaust Temperature (°F): Ambient (70 °F)

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 81-A-147-S1

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

#### **Monitoring Requirements**

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

# 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. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

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 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 No

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

#### **Emission Point ID Number: 58-F-1**

# **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EL-7	Corn Conveying	Corn	220 tons/hr	03-A-041

# **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 03-A-041

567 IAC 23.1(2)"ooo"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.036 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-041

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

Authority for Requirement: DNR Construction Permit 03-A-041

567 IAC 23.4(7)

# New Source Performance Standard (NSPS) Applicability:

This equipment is subject to the New Source Performance Standard (NSPS) for Grain Elevators (40 CFR 60 Subpart DD).

Authority for Requirement: 40 CFR 60 Subpart DD

567 IAC 23.1(2)"ooo"

# **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. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

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

Authority for Requirement: 567 IAC 22.108(14)	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

43

# **Emission Point ID Number: 58-F-2**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
EL-12	Downriver Belly Dump Pit	EL-12: Dust Collector	Corn	560 tons/hr	NA

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 5%

Authority for Requirement: 40 CFR 60.302(c)(1) Standards of Performance for Grain Elevators

567 IAC 23.1(2)"ooo"

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

Authority for Requirement: 567 IAC 23.4(7)

# New Source Performance Standard (NSPS) Applicability:

This equipment is subject to the New Source Performance Standard (NSPS) for Grain Elevators (40 CFR 60 Subpart DD).

Authority for Requirement: 40 CFR 60 Subpart DD

567 IAC 23.1(2)"ooo"

#### **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. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

If an opacity > (5%) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

#### **Emission Point ID Number: 58-F-3**

# **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EL-14	Overhead Belt Conveyer	Corn	840 tons/hr	03-A-040

# **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 03-A-040

567 IAC 23.1(2)"ooo"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.14 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-040

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

Authority for Requirement: DNR Construction Permit 03-A-040

567 IAC 23.4(7)

# New Source Performance Standard (NSPS) Applicability:

This equipment is subject to the New Source Performance Standard (NSPS) for Grain Elevators (40 CFR 60 Subpart DD).

Authority for Requirement: 40 CFR 60 Subpart DD

567 IAC 23.1(2)"ooo"

# **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. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

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

Authority for Requirement: 567 IAC 22.108(14)	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

Emission Point ID Numbers: 58-2/P & 58-R/BA

# **Associated Equipment**

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
58-2/P	EL-9	Elevator Exhaust Vents	Corn	220 tons/hr	NA
58-R/BA	EL-8	Corn Bins #14-30, 49-66	Corn	1400 tons/hr	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 23.4(7)

# **Monitoring Requirements**

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

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

# **Feedhouse Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID	
51-4	FH-1	Gluten Ring Dryer	01-A-366	
51-5	FH-2	Gluten Meal Cooling	01-A-367-S2	
59-B7	FH-32	Fiber Press	NA	
59C-F-1	FH-30	Rail Car Loading	NA	
74-E	FH-31	Fiber Press	82-A-071	
138-04	FH-05N	Hammer Mill	11-A-061-S1	
	FH-08N	#4 Pellet Cooler		
138-06	FH-09N	#3 Pellet Cooler	11-A-062-S2	
	FH-43N	Dry Feed Pneumatic Conveyor		
138-10	FH-31N	Hammer Mill	13-A-034	
	FH-32N	Pellet Cooler Bucket Elevator (LC51)		
	FH-33N	Bucket Elevator (MX53)		
	FH-34N	Conveyor (MX54)		
	FH-35N	Bucket Elevator (MX55)		
138-11	FH-36N	Conveyor (MP52)	13-A-035	
	FH-37N	Conveyor (MP53)		
	FH-38N	Conveyor (MP54)		
	FH-39N	Conveyor (MP55)		
	FH-40N	Silo (MX100)		
138-12	FH-44	Receiver	16-A-431	
139-1	FH-10N	Fiber Steam Tube Dryer, 2 Stages	11-A-066-S1	
139-2	FH-10N	Fiber Steam Tube Dryer, 2 Stages Bypass	11-A-067-S2	
140.1	FH-41N	Gluten Truck Loadout	11 4 060 01	
140-1	FH-42N	Pellet Truck Loadout	11-A-068-S1	
140-2	FH-13N	#1 Pellet Loadout Bin	11-A-069-S1	
140-3	FH-14N	#2 Pellet Loadout Bin	11-A-070-S1	
140-4	FH-15N	Gluten Loadout Bin	11-A-071-S2	

#### **Emission Point ID Number: 51-4**

# **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
FH-1	Gluten Ring Dryer	FH-1: Scrubber	Gluten Natural Gas	9.75 tons/hr 40 MMBtu/hr	01-A-366

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 01-A-366

567 IAC 23.3(2)"d"

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

Emission Limit(s): 6.4 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-366

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

Authority for Requirement: DNR Construction Permit 01-A-366

567 IAC 23.4(7)

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

Emission Limit(s): 9.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 01-A-366

567 IAC 23.3(3)"e"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

1. See Facility-Wide Limits

Authority for Requirement: DNR Construction Permit 01-A-366

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 200

Stack Opening, (inches, dia.): 28 Exhaust Flow Rate (scfm): 24,600 Exhaust Temperature (°F): 175

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 01-A-366

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
<b>Facility Maintained Operation &amp; Maintenance Plan Required?</b> (required for $PM_{10}$ , Particulate Matter, and $SO_2$ emissions)	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: 51-5**

#### **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
FH-2	Gluten Meal Cooling	FH-2: Baghouse	Gluten	9.75 tons/hr	01-A-367-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 01-A-367-S2

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.6 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-367-S2

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

Authority for Requirement: DNR Construction Permit 01-A-367-S2

567 IAC 23.4(7)

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This emission unit is limited to a production rate of 9.75 tons/hr
- 2. The date, the production rate of this emission unit for the day (in tons/day), the hours of operation for this emission unit for the day (in hrs/day), and the average hourly production rate (in tons/hr).
- 3. See Facility-Wide Limits

Authority for Requirement: DNR Construction Permit 01-A-367-S2

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 141.75

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 9,100 to 10,000 Exhaust Temperature (°F): 70 to 125 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 01-A-367-S2

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

# **Monitoring Requirements**

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

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

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: 59-B7** 

**Associated Equipment** 

<b>Emission Unit</b>	Emission Unit	Raw	Rated	Construction
	Description	Material	Capacity	Permit
FH-32	Fiber Press	Fiber	48,000 lb/hr	NA

# **Applicable Requirements**

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

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

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

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

Monitoring Requirements	
The owner/operator of this equipment shall comply with the monitoring	g 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: 59C-F-1** 

# Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
FH-30	Rail Car Loading	Corn Gluten Meal	202.5 tons/hr	NA

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 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 23.4(7)

# **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?

Yes □ No ⋈

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No ⋈

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □ No ⋈

**Emission Point ID Number: 74-E** 

# **Associated Equipment**

Emission	Emission Unit Description	Raw	Rated	Construction
Unit		Material	Capacity	Permit
FH-31	Fiber Press	Fiber	151,000 ft <sup>3</sup> /hr	82-A-071

# **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): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 82-A-071

567 IAC 23.4(7)

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

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

#### **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: 138-04**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
FH-05N	Hammer Mill	FH-05: Baghouse	Dried Feed	18.5 tons/hr	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 11-A-061-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.57 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-061-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.57 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-061-S1

567 IAC 23.4(7)

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 63.1 Stack Opening, (inches): 31.5 x 31.5 Exhaust Flow Rate (acfm): 6,592 Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 11-A-061-S1

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

#### **Monitoring Requirements**

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

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

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: 138-06**

# **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
	<b>.</b>		+		1 CI IIII
FH-08N	#4 Pellet Cooler	FH-08N: Baghouse	Dried Feed	20 tons/hr	
FH-09N	#3 Pellet Cooler	FH-09N: Baghouse	Dried Feed	20 tons/hr	11-A-062-S2
FH-43N	Dry Feed Pneumatic	FH-43N: Baghouse	Dried Feed	37 tons/hr	11-A-002-52
111-431N	Conveyor	1711-45IN. Dagilouse	Direct reed	3 / tons/iii	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 11-A-062-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 1.17 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-062-S2

Pollutant: Particulate Matter

Emission Limit(s): 1.17 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-062-S2

567 IAC 23.4(7)

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 100

Stack Opening, (inches, dia.): 34 Exhaust Flow Rate (scfm): 13,600 Exhaust Temperature (°F): 170 Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 11-A-062-S2

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required? (Required for FH-08N, FH-09N, & FH-43N)	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: 138-10**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
FH-31N	Hammer Mill	138-10: Baghouse	Dried Feed	18.5 tons/hr	13-A-034

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 13-A-034

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.57 lb/hr

Authority for Requirement: DNR Construction Permit 13-A-034

Pollutant: Particulate Matter

Emission Limit(s): 0.57 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 13-A-034

567 IAC 23.4(7)

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 63.1 Stack Opening, (inches): 31.5 x 31.5 Exhaust Flow Rate (acfm): 6,592 Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 13-A-034

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

#### **Monitoring Requirements**

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

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

62

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: 138-11**

# **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
FH-32N	Pellet Cooler Bucket Elevator (LC51)		Feed, Pellets	40 tons/hr	
FH-33N	Bucket Elevator (MX53)		Feed, Pellets	40 tons/hr	
FH-34N	Conveyor (MX54)	CE 138-11:	Feed, Pellets	40 tons/hr	
FH-35N	Bucket Elevator (MX55)	Pulse Jet Baghouse	Feed, Pellets	40 tons/hr	13-A-035
FH-36N	Conveyor (MP52)	Dagnouse	Feed, Pellets	40 tons/hr	
FH-37N	Conveyor (MP53)		Feed, Pellets	40 tons/hr	
FH-38N	Conveyor (MP54)		Feed, Pellets	40 tons/hr	
FH-39N	Conveyor (MP55)		Feed, Pellets	40 tons/hr	
FH-40N	Silo (MX100)		Feed, Pellets	40 tons/hr	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 13-A-035

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.70 lb/hr

Authority for Requirement: DNR Construction Permit 13-A-035

Pollutant: Particulate Matter

Emission Limit(s): 0.70 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 13-A-035

567 IAC 23.4(7)

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 92 Stack Opening, (inches, dia.): 35.6 Exhaust Flow Rate (acfm): 8,835 Exhaust Temperature (°F): 113 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 13-A-035

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

#### **Monitoring Requirements**

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

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

64

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: 138-12**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
FH-44	Receiver	CE FH-44: Baghouse	Corn	5,000 lb/hr	16-A-431

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 16-A-431

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.11 lb/hr

Authority for Requirement: DNR Construction Permit 16-A-431

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

Authority for Requirement: DNR Construction Permit 16-A-431

567 IAC 23.4(7)

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the control equipment according to the facility's (Plant No. 56-01-009) operation and maintenance plan.
  - a. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include:
    - i. Weekly pressure drop;
    - ii. The date that any inspection and/or maintenance was performed on the control equipment;
    - iii. Any issues identified during the inspection;
    - iv. Any issues addressed during the maintenance activities; and
    - v. Identification of the staff member performing the maintenance or inspection.

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 82

Stack Opening, (inches): 19.7 Exhaust Flow Rate (scfm): 1,323 Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 16-A-431

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

66

	/	• 4	•	D	•	4
N	/10	nita	ring	Kea	uirem	ients
Τ,		11100		1100		CILUD

The owner/operator	of this equipm	ent shall com	ply 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: 139-1**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
FH-10N	Fiber Steam Tube Dryer, 2 Stages	CE-10: Cyclone CE-11: Cyclone CE-12: Scrubber CE-13: Regenerative Thermal Oxidizer	Wet Feed, Natural Gas	37 tons/hr, 18 MMBtu/hr	11-A-066-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 11-A-066-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 6.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-066-S1

Pollutant: Particulate Matter

Emission Limit(s): 6.0 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-066-S1

567 IAC 23.4(7)

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

Emission Limit(s): 7.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 11-A-066-S1

567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 4.5 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-066-S1

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

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 3.5 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-066-S1

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 5.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-066-S1

Pollutant: Total HAP Emission Limit(s): 1.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-066-S1

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The control equipment shall be operated, inspected and maintained according to manufacturer's recommendations.
- 2. The pH of the scrubber liquor shall be maintained between 6.5 and 9.5.
- 3. If any additive is used for a test demonstrating compliance with the emission limits, the minimum additive feed rate shall be that used during the compliance test.
- 4. The owner or operator shall maintain an average pressure drop across the wet scrubber (CE-12) that is between 1 and 5 inches water column based on a 3-hour averaging period. Roquette America, Inc. shall establish an alarm setting for the purpose of initiating corrective action based on a pressure drop across the wet scrubber of less than 1 inches water column or a pressure drop pressure drop across the wet scrubber of greater than 5 inches water column.
- 5. The owner or operator shall maintain the 3-hour average operating temperature of the Regenerative Thermal Oxidizer (CE-13) at no less than 50 degrees Fahrenheit below the average operating temperature the Regenerative Thermal Oxidizer (CE-13) recorded during the most recent performance test that demonstrated compliance with the emission limits as specified above.
- 6. The owner or operator shall keep records of control equipment inspections and maintenance.
- 7. If additive is used, record the additive feed rate to the scrubber on a continuous basis. If the additive feed rate deviates below the rate required (i.e., additive feed rate during a previous performance test that demonstrated compliance), then record the time, date and actions taken to correct the situation and also when the additive feed rate is greater than or equal to the required additive feed rate. This requirement shall not apply on the days that the scrubber is not in operation.
- 8. Record the pH on an hourly basis. On those days when there is an alarm for a pH less than 6.5 or greater than 9.5, calculate and record the pH based on a 3-hour average. This requirement shall not apply on the days that the scrubber is not in operation. If the pH deviates outside the range required, then record the time, date and actions taken to correct the situation and when the pH is back in the average pH range required

- 9. Record the scrubber pressure drop on a continuous basis. On those days when there is an alarm for the pressure drop reaching less than 1 inches water column or greater than 5 inches water column, calculate and record the average pressure drop across the scrubber based on a 3-hour average. This requirement shall not apply on the days that the scrubber is not in operation. If the pressure drop deviates outside the range required, then record the time, date and actions taken to correct the situation and when the pressure drop is back in the average pressure drop range required.
- 10. Maintain a record of the average operating temperature of the Regenerative Thermal Oxidizer (CE-13) during the most recent performance test that demonstrated compliance with the emission limits as specified above.
- 11. The owner or operator shall keep three-hour block records of the operating temperature of the Regenerative Thermal Oxidizer (CE-13), 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.

Authority for Requirement: DNR Construction Permit 11-A-066-S1

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 100

Stack Opening, (inches, dia.): 56 Exhaust Flow Rate (scfm): 34,750 Exhaust Temperature (°F): 170-280 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 11-A-066-S1

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

# **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🔀
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🔀
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🛛 No 🗌
Required for CE-10 and CE-1. Operating Requirementssatisfy CAM eq and CE-13.	quivalent monitoring for CE-12

# Compliance Assurance Monitoring Plan CAM Plan for EP 139-1; Control Devices CE 10, CE 11

#### I. Background

A. Emissions Units

Description: Fiber Stream Tube Dryer, 2 Stages

Identification: FH-10N

Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: DNR Construction Permit 11-A-066

Particulate emission limit: PM: 6.0 lb/hr, 0.1 gr/dscf

PM10: 6.0 lb/hr

Opacity limit: 40%

Sulfur Dioxide (SO<sub>2</sub>): 7.0 lb/hr; 500ppmv

Volatile Organic Compounds: 3.5 lb/hr Carbon Monoxide (CO): 5.0 lb/hr

Current Monitoring requirements: Record pressure drop across the scrubber and pH of

scrubber liquor. If applicable, record scrubber additive feed rate (continuous or in batch). Record all control

equipment inspections and maintenance.

C. Control Technology: Two cyclones (CE 10, CE 11)

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1. The selected performance indicators are percent particle level exiting the cylone.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

**Table 1. Monitoring Approach** 

General Criteria	Indicator 1
I. Indicator	Cyclone particle level percentage
Measurement Approach	Particle level percentage will be measured at the exit of the cyclone.
II. Indicator Range	Particle level percentage will be recorded continuously to ensure that the level is maintained at less than 45% on a 24-hour average basis, except during startup, shutdown, or cleaning of control equipment.
QIP Threshold	The QIP threshold is six excursions in a six month period.
III. Performance Criteria	Indicator 1
A. Data Representativeness	The cyclone is designed to operate with a particle level percentage less than 45% on a 24-hour average basis. If the level exceeds this value, it is an indication of the potential for increased particulate emissions.
B. Verification of Operational Status	Records of particle level percentage readings will be maintained for five years.
C. QA/QC Practices and Criteria	Monitoring devices will be maintained using procedures that take into account manufacturer's specifications. Cyclone will be maintained as outlined in the facility's operation and maintenance plan.

	Indicator 1
D. Monitoring Frequency	The particle level readings shall be monitored on a 24-hr average basis while the emission unit is in operation.
	If the level goes above the indicator level specified above, corrective action shall be taken as soon as possible, but no later than eight hours from observation.
E. Data Collection Procedures	Electronic or hard copy of particle level readings will be available upon request.  Corrective actions resulting from excursions will be recorded.
IV. Justification	Particle level percentage was selected as one of the performance indicators because it demonstrates the proper operating conditions of this control device and therefore the optimal particulate control performance.

#### **Emission Point ID Number: 139-2**

## Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
FH-10N	Fiber Steam Tube Dryer, 2 Stages Bypass	CE-10: Cyclone CE-11: Cyclone CE-12: Scrubber	Wet Feed	37 tons/hr	11-A-067-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 11-A-067-S2

567 IAC 23.3(2)"d"

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

Emission Limit(s): 6.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-067-S2

Pollutant: Particulate Matter

Emission Limit(s): 6.0 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-067-S2

567 IAC 23.4(7)

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

Emission Limit(s): 7.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 11-A-067-S2

567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 4.5 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-067-S2

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 175.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-067-S2

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

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 50.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-067-S2

Pollutant: Total HAP

Emission Limit(s): 28.0 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-067-S2

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The bypass, EP 139-2, shall be used a maximum of 100 hours per twelve month rolling period.
- 2. The bypass, EP 139-2, shall be used a maximum of 3 hours in any calendar day.
- 3. The control equipment shall be operated, inspected and maintained according to manufacturer's recommendations.
- 4. The pH of the scrubber liquor shall be maintained between 6.5 and 9.5.
- 5. If any additive is used for a test demonstrating compliance with the emission limits, the minimum additive feed rate shall be that used during the compliance test.
- 6. The owner or operator shall maintain an average pressure drop across the wet scrubber (CE-12) that is between 1 and 5 inches water column based on a 3-hour averaging period. Roquette America, Inc. shall establish an alarm setting for the purpose of initiating corrective action based on a pressure drop across the wet scrubber of less than 1 inches water column or a pressure drop pressure drop across the wet scrubber of greater than 5 inches water column.
- 7. The owner or operator shall keep records of control equipment inspections and maintenance.
- 8. If additive is used, record the additive feed rate to the scrubber on a continuous basis. If the additive feed rate deviates below the rate required (i.e., additive feed rate during a previous performance test that demonstrated compliance), then record the time, date and actions taken to correct the situation and also when the additive feed rate is greater than or equal to the required additive feed rate. This requirement shall not apply on the days that the scrubber is not in operation.
- 9. Record the pH on an hourly basis. On those days when there is an alarm for a pH less than 6.5 or greater than 9.5, calculate and record the pH based on a 3-hour average. This requirement shall not apply on the days that the scrubber is not in operation. If the pH deviates outside the range required, then record the time, date and actions taken to correct the situation and when the pH is back in the average pH range required
- 10. Record the scrubber pressure drop on a continuous basis. On those days when there is an alarm for the pressure drop reaching less than 1 inches water column or greater than 5 inches water column, calculate and record the average pressure drop across the scrubber based on a 3-hour average. This requirement shall not apply on the days that the scrubber is not in operation. If the pressure drop deviates outside the range required, then record the time, date and actions taken to correct the situation and when the pressure drop is back in the average pressure drop range required.
- 11. The owner or operator shall keep monthly records of the number of hours the bypass, EP 139-2, is used, and update the twelve month rolling total on a monthly basis.

75

12. The owner or operator shall keep daily records of the number of hours that the bypass, EP 139-2, is used in a calendar day. A record is not required for the days when the bypass was not used.

Authority for Requirement: DNR Construction Permit 11-A-067-S2

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 47.9

Stack Opening, (inches, dia.): 56

Exhaust Flow Rate (acfm): 44,602 to 71,616

Exhaust Temperature (°F): 145 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 11-A-067-S2

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 140-1**

## **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
FH-41N	Gluten Truck Loadout	CE 140-01:	Gluten, Pellets	187.5 tons/hr	11-A-068-S1
FH-42N	Pellet Truck Loadout	Baghouse	Gluten, Pellets	165 tons/hr	11-A-008-51

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 11-A-068-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 1.03 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-068-S1

Pollutant: Particulate Matter

Emission Limit(s): 1.03 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-068-S1

567 IAC 23.4(7)

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

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

Stack Height, (ft., from the ground): 55 Stack Opening, (inches): 25 x 19 Exhaust Flow Rate (acfm): 12,000 Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 11-A-068-S1

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

#### **Monitoring Requirements**

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

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

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 Numbers: 140-2 & 140-3

## **Associated Equipment**

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
140-2	FH-13N	#1 Pellet Loadout Bin	CE-15: Baghouse	Pellets	40 tons/hr	11-A-069-S1
140-3	FN-14N	#2 Pellet Loadout Bin	CE-16: Baghouse	Pellets	40 tons/hr	11-A-070-S1

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permits 11-A-069-S1 & 11-A-070-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.043 lb/hr

Authority for Requirement: DNR Construction Permits 11-A-069-S1 & 11-A-070-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.043 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 11-A-069-S1 & 11-A-070-S1

567 IAC 23.4(7)

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

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 66.7

Stack Opening, (inches, dia.): 12 Exhaust Flow Rate (acfm): 500 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permits 11-A-069-S1 & 11-A-070-S1

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🔀
Facility Maintained Operation & Maintenance Plan Required? (Required for CE-15 & CE-16)	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.

80

#### **Emission Point ID Number: 140-4**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
FH-15N	Gluten Loadout Bin	CE-17: Baghouse	Gluten	12 tons/hr	11-A-071-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 11-A-071-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.086 lb/hr

Authority for Requirement: DNR Construction Permit 11-A-071-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.086 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 11-A-071-S2

567 IAC 23.4(7)

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

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

Stack Height, (ft., from the ground): 64

Stack Opening, (inches, dia.): 6 Exhaust Flow Rate (scfm): 1,000 Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 11-A-071-S2

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

#### **Monitoring Requirements**

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

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

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.

## **Generators Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
110-2	RF-12	Emergency Generator	15-A-502
EG-2	EG-2	Emergency Generator	NA
EG-3	EG-3	Emergency Generator	NA
GH-1	GH-1	Emergency Generator	NA
GH-2	GH-2	Emergency Generator	15-A-512
82A-1	RE-4	Emergency Generator	NA
66-T	RC-09	Emergency Generator	NA
66-U	RC-17	Diesel Engine	NA

#### **Emission Point ID Number: 110-2**

#### **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
RF-12	<b>Emergency Generator</b>	Diesel Fuel	536 hp	15-A-502

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 15-A-502

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"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

#### National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This unit is subject to the requirements of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (40 CFR 63 Subpart ZZZZ; 567 IAC 23.1(4)"cz").

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.
- 2. The sulfur content of the fuel oil consumed in this unit shall not exceed 0.5% by weight.
- 3. This engine is limited to operate as an emergency stationary internal combustion engine as defined in 40 CFR 63.6675 and in accordance with 40 CFR 63.6640(f). There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition 1 above is not exceeded. In accordance with 40 CFR 63.6640(f), the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.

<sup>(1)</sup> An exceedance of the indicator opacity of 20% 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).

- 4. The engine is also allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used to generate income for the facility to supply power to the electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.
- 5. For each instance the engine operates, record the following information:
  - a. Date that operation commenced;
  - b. The number of hours the unit operated;
  - c. The reason the engine was operated.
- 6. At the end of each month, record the number of hours the unit operated over the previous month.
- 7. At the end of each month, record the number of hours the unit operated over the previous twelve (12) months.
- 8. For each shipment of fuel oil received maintain a fuel certification or other vendor's documentation showing the sulfur content of the fuel oil received.

Authority for Requirement: DNR Construction Permit 15-A-502

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): 10

Stack Opening, (inches, dia.): 6 Exhaust Flow Rate (scfm): 380 Exhaust Temperature (°F): 1063

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 15-A-502

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

#### **Monitoring Requirements**

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

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

85

## **Emission Point ID Number: EG-2, EG-3**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EG-2	Emergency Generator	Diesel	233 hp	NA
EG-3	Emergency Generator	Diesel	49 hp	NA

## **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 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"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

## National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

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)(iii) this stationary compression ignition internal combustion engine, located at a major source, is a new stationary RICE as it was constructed on or after June 12, 2006.

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

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

86

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

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)

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.

Authority for Requirement: 567 IAC 22.108(3)

#### NSPS Subpart IIII Requirements:

#### 1. Emission Standards:

a. According to 40 CFR 89.112(c) and Table 2 to Subpart IIII, you must comply with the following emission standards in grams/HP-hr:

Marinaum			<b>Emission Standards</b>	<u> </u>
Maximum Engine Power	Model Year(s)	g/HP-hr		
<b>Engine Power</b>		NMHC + NOx	СО	PM
$175 \le HP \le 400$	2007+	3.0	2.6	0.15
$37 \le HP \le 75$	2008+	5.6	3.7	0.30

#### 2. Compliance Requirements:

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

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

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

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

#### 3. Operating and Recordkeeping Requirements (40 CFR 4243(d)):

- a. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 60.4209(a)) and you must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. 40 CFR 60.4214(b).
- b. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
- c. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
- d. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

#### 4. Fuel Requirements:

a. You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 80.510(b).

Authority for Requirement: 40 CFR Part 60 Subpart IIII 40 CFR 63.6590(c)(1)

<b>Monitoring</b>	Requirements

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

Agency Approved Operation & Maintenance Plan Required?

Yes No 

Tacility Maintained Operation & Maintenance Plan Required?

Yes No 

Compliance Assurance Monitoring (CAM) Plan Required?

Yes No 

Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No 
Yes No

#### **Emission Point ID Number: GH-1**

#### **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
GH-1	Emergency Generator	Natural Gas	50 hp	NA

## **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 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"

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

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

## National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

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.

Based on the manufacture date of this engine, 40 CFR 60 Subpart JJJJ does not apply to this engine.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

Monitoring Requirements  The control of this control of this control of the contr	
The owner/operator of this equipment shall comply with the monitoring re	equirements tistea 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: GH-2**

#### **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
GH-2	Emergency Generator	Natural Gas	97.7 hp	15-A-607

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 15-A-607

567 IAC 23.3(2)"d"

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

Authority for Requirement: DNR Construction Permit 15-A-607

567 IAC 23.3(2)"a"

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

Authority for Requirement: DNR Construction Permit 15-A-607

567 IAC 23.3(3)"e"

#### National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

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.

Based on the manufacture date of this engine, 40 CFR 60 Subpart JJJJ does not apply to this engine.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

<sup>(1)</sup> 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).

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This generator is limited to burning natural gas.
- 2. This generator shall not operate more than 500 hours per rolling twelve-month period.
- 3. The facility shall install a non-resettable hour meter if one is not already installed, as per 40 CFR Part 63 Subpart ZZZZ.
- 4. The facility shall 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.
- 5. The facility may operate the emergency engine up to 50 hours per calendar year for non-emergency situations; however, those 50 hours are counted toward the 100 hours of maintenance and testing.
- 6. The facility shall change the oil and filter every 500 hours of operation or annually, whichever comes first.
- 7. The facility shall inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
- 8. The facility shall inspect all hoses and belt every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 9. The owner or operator shall maintain the following monthly records:
  - a. the number of hours that the engine operated for maintenance checks and readiness testing;
  - b. the number of hours that the engine operated for allowed non-emergency operations;
  - c. the total number of hours that the engine operated; and
  - d. the rolling 12-month total amount of the number of hours that the engine operated.
- 10. The owner or operator shall maintain the following annual records:
  - a. the number of hours that the engine operated for maintenance checks and readiness testing; and.
  - b. the number of hours that the engine operated for allowed non-emergency operations.
- 11. Maintain records of the maintenance conducted on this emergency engine.

Authority for Requirement: DNR Construction Permit 15-A-607

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

Stack Height, (ft., from the ground): 10

Stack Opening, (inches, dia.): 3 Exhaust Flow Rate (scfm): 470 Exhaust Temperature (°F): 1,211 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 15-A-607

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 82A-1**

## **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
RE-4	Emergency Generator	Diesel Fuel	114 hp	NA

## **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 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"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

## National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

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.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 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.
- 2. 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.

Authority for Requirement: 567 IAC 22.108(3) 567 IAC 23.3(3)"b"(1)

#### Fuel Requirements:

No requirements except (beginning January 1, 2015) if you own or operate an existing emergency compression ignition stationary engine with a site rating of more than 100 bhp and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Those requirements include a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 63.6604(b)

# 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, emergency demand response 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.)
- 3. If you own or operate an emergency stationary RICE with a site rating of more than 100 bhp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must submit an annual report. See 40 CFR 63.6650(h) for additional 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 🖂
Authority for Requirement: 567 IAC 22.108(3)	

97

JWJ

**Emission Point ID Number: 66-T, 66-U** 

## **Associated Equipment**

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
RC-09	Emergency Generator	Diesel Fuel	310 hp	NA
RC-17	Emergency Generator	Diesel Fuel	80 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"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

## National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The 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) each compression ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

## Operating Requirements with Associated Monitoring and Recordkeeping

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

- 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.
- 2. 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.

Authority for Requirement: 567 IAC 22.108(3), 567 IAC 23.3(3)"b"(1)

# 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 and emergency demand response. 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"

#### **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 🖂

## **Germ Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
	G-4	#4 Germ Dryer	
12-6	G-5	#5 Germ Dryer	09-A-044
	G-6	#6 Germ Dryer	
12-8	G-2	#2 Germ Dryer	77-A-334-S1
12-8	G-3	#3 Germ Dryer	//-A-334-31
12-13	G-12	Germ Transfer	01-A-059
	G-1	#1 Germ Dryer	
12-14	G-7	#7 Germ Dryer	09-A-045
	G-8	Germ Cooler	

## **Emission Point ID Number: 12-6**

## **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
G-4	#4 Germ Dryer		Corn Germ	10 tons/hr	
G-5	#5 Germ Dryer	CE 12-6: Rotoclone	Corn Germ	10 tons/hr	09-A-044
G-6	#6 Germ Dryer		Corn Germ	10 tons/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 09-A-044

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.81 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-044

Pollutant: Particulate Matter

Emission Limit(s): 0.81 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-044

567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 24.3 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-044

<sup>(1)</sup> An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

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

Stack Height, (ft., from the ground): 62

Stack Opening, (inches, dia.): 20 Exhaust Flow Rate (acfm): 9,800 Exhaust Temperature (°F): 185

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-044

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

#### **Monitoring Requirements**

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

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

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: 12-8**

## **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
G-2	#2 Germ Dryer	CE 12-8:	Corn Germ	10 tons/hr	77-A-334-S1
G-3	#3 Germ Dryer	Rotoclone	Corn Germ	10 tons/hr	//-A-334-31

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 77-A-334-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.42 lb/hr

Authority for Requirement: DNR Construction Permit 77-A-334-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.62 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 77-A-334-S1

567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 3.16 lb/hr

Authority for Requirement: DNR Construction Permit 77-A-334-S1

<sup>(1)</sup> An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

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

Stack Height, (ft., from the ground): 62 Stack Opening, (inches, dia.): 20

Exhaust Flow Rate (acfm): 9,800 Exhaust Temperature (°F): 175

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 77-A-334-S1

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

#### **Monitoring Requirements**

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

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

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: 12-13**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
G-12	Germ Transfer	12-13: Baghouse	Corn Germ	12.5 tons/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 01-A-059

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.07 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-059

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

Authority for Requirement: DNR Construction Permit 01-A-059

567 IAC 23.4(7)

<sup>(1)</sup> An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

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

Stack Height, (ft., from the ground): 53

Stack Opening, (inches, dia.): 8 Exhaust Flow Rate (scfm): 900 Exhaust Temperature (°F): 100 Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 01-A-059

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

#### **Monitoring Requirements**

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

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

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: 12-14**

## **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
G-1	#1 Germ Dryer		Corn Germ	10 tons/hr	
G-7	#7 Germ Dryer	12-14: Rotoclone	Corn Germ	10 tons/hr	09-A-045
G-8	Germ Cooler		Corn Germ	10 tons/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 09-A-045

567 IAC 23.3(2)"d"

(1) An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.42 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-045

Pollutant: Particulate Matter

Emission Limit(s): 0.62 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-045

567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 3.16 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-045

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 62

Stack Opening, (inches, dia.): 20 Exhaust Flow Rate (acfin): 9,800 Exhaust Temperature (°F): 185

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-045

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

#### **Monitoring Requirements**

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

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

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.

# **Mill Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
7/8/9/10	M-1	Mill House Exhaust Vents	NA
7-3	M-2	17 Steep Tanks	10-A-216-S2
	M-5A	5 <sup>th</sup> Fiber Wash Tank	
7-16 M-5B M-5C		2 <sup>nd</sup> Grind Pit	09-A-463-S4
		3 <sup>rd</sup> Grind Pits	
8-5	M-6	Fiber Wash Tanks & Filtrate Tank	09-A-468-S2
8-8	M-4	Wet Corn Hopper Room	09-A-462-S2
M-66 Steeping		Steeping	
M-67		Steeping	
	M-68	Steeping	
83-1	M-69	Steeping	04 4 662 52
	M-74	Steeping	04-A-663-S2
	M-75	Steeping	
	M-76	Steeping	
	M-77	Steeping	

110

**Emission Point ID Number: 7/8/9/10** 

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
M-1	Mill House Exhaust Vents	Corn	220 tons/hr	NA

## **Applicable Requirements**

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

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

Pollutant: Sulfur Dioxide (SO <sub>2</sub> )
Emission Limit(s): 500 ppmv
Andle anity for Description and 567 IAC 22 2(2)

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

	M	<u>oni</u>	tor	ing	Reg	<u>uir</u>	em	<u>ents</u>
--	---	------------	-----	-----	-----	------------	----	-------------

Monitoring Requirements  The owner/operator of this equipment shall comply with the monitoring the shall comply with the shall c	no requirements listed helow
Agency Approved Operation & Maintenance Plan Required?	Yes No No
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

#### **Emission Point ID Number: 7-3**

## Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
M-2	17 Steep Tanks	Corn	65,000 gallons (each)	10-A-216-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 10-A-216-S2

567 IAC 23.3(2)"d"

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

Authority for Requirement: DNR Construction Permit 10-A-216-S2

567 IAC 23.4(7)

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

Emission Limit(s): 15.2 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 10-A-216-S2

567 IAC 23.3(3)"e"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput of this equipment shall not exceed 190 tons per hour.
- 2. At the end of each day, record the amount, in tons, of material processed by this equipment on that day.
- 3. At the end of each day, record the number of hours this equipment operated on that day.
- 4. For each day, calculate the daily average hourly production rate by dividing the amount of material processed on that day by the number of hours this equipment operated on that day. This calculation shall be performed no later than 7 days after the end of the month.

Authority for Requirement: DNR Construction Permit 10-A-216-S2

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 50

Stack Opening, (inches, dia.): 48 Exhaust Flow Rate (scfm): 9,040 Exhaust Temperature (°F): 100

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 10-A-216-S2

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 7-16**

## **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
M-5A	5 <sup>th</sup> Fiber Wash Tank		1,000 gallons	
	2 <sup>nd</sup> Grind Mill	Starch, Gluten,		
M-5B	(3 grinders) and	Fibrous Corn	220 tons/hr	09-A-463-S4
	Grind Pit (1 pit)	Material		
M-5C	3 <sup>rd</sup> Grind Pit (4)		55 tons/hr (each)	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 09-A-463-S4

567 IAC 23.3(2)"d"

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

Authority for Requirement: DNR Construction Permit 09-A-463-S4

567 IAC 23.4(7)

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

Emission Limit(s): 4.86 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 09-A-463-S4

567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 9.0 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-463-S4

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput of these emission units shall not exceed 190 tons per hour, averaged over a calendar day.
- 2. For of each calendar day, the owner or operator shall record the amount, in tons, of material processed by this equipment. This determination shall be completed by the end of the next calendar day.
- 3. For of each calendar day, the owner or operator shall record the number of hours this equipment operated. This determination shall be completed by the end of the next calendar day.
- 4. For each calendar day, the owner or operator shall calculate the daily average hourly production rate by dividing the amount of material processed on that calendar day by the number of hours this equipment operated on that calendar day. This calculation shall be performed no later than 7 days after the end of the month.

Authority for Requirement: DNR Construction Permit 09-A-463-S4

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 63 Stack Opening, (inches, dia.): 14 Exhaust Flow Rate (scfm): 2,500 Exhaust Temperature (°F): 100

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-463-S4

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

#### **Monitoring Requirements**

	, , ,	• . 7 •	• , ;	1 11	7	• .1	1	• . •	•	1 1	1 1
The owner/	onerator of	this	eauinment si	nall	comply	with ti	ne r	nonitoring	requirements	listed	helow

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 🖂

JWJ 115 08-TV-006R2, 3/25/2022

#### **Emission Point ID Number: 8-5**

## **Associated Equipment**

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
M-6	Fiber Wash Tanks	Starch, Gluten,	6,786	09-A-468-S2
IVI-O	& Filtrate Tank	Fibrous Corn Material	bushels/hr	09-A-400-32

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 09-A-468-S2

567 IAC 23.3(2)"d"

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

Authority for Requirement: DNR Construction Permit 09-A-468-S2

567 IAC 23.4(7)

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

Emission Limit(s): 3.99 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 09-A-468-S2

567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 2.0 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-468-S2

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput of this equipment shall not exceed 190 tons per hour.
- 2. At the end of each day, record the amount, in tons, of material processed by this equipment of the previous day.
- 3. At the end of each day, record the number of hours this equipment operated over the previous day.
- 4. For each day, calculate the daily average hourly production rate by dividing the amount of material processed on that day by the number of hours this equipment operated on that day. This calculation shall be performed no later than 7 days after the end of the month.

Authority for Requirement: DNR Construction Permit 09-A-468-S2

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 61

Stack Opening, (inches, dia.): 21 Exhaust Flow Rate (scfm): 800 – 1,500

Exhaust Temperature (°F): 115

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-468-S2

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

## **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 8-8**

#### **Associated Equipment**

Emission	Emission Unit Description	Raw	Rated	Construction
Unit		Material	Capacity	Permit
M-4	Wet Corn Hopper Room	Corn	190 tons/hr	09-A-462-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 (SO<sub>2</sub>)

Emission Limit(s): 2.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 09-A-462-S2

567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 1.0 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-462-S2

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 63.8

Stack Opening, (inches, dia.): 24 Exhaust Flow Rate (scfm): 4,800 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-462-S2

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

Monitoring Requirements  The owner/operator of this equipment shall comply with the monitoring re	quirements 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: 83-1**

## **Associated Equipment**

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
M-66	Steeping	Corn	13,500 bushels/hr	
M-67	Steeping	Corn	13,500 bushels/hr	
M-68	Steeping	Corn	13,500 bushels/hr	
M-69	Steeping	Corn	13,500 bushels/hr	04-A-663-S2
M-74	Steeping	Corn	13,500 bushels/hr	04-A-005-52
M-75	Steeping	Corn	13,500 bushels/hr	
M-76	Steeping	Corn	13,500 bushels/hr	
M-77	Steeping	Corn	13,500 bushels/hr	

## **Applicable Requirements**

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

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

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

Emission Limit(s): 9.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 04-A-663-S2

567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 9.0 lb/hr

Authority for Requirement: DNR Construction Permit 04-A-663-S2

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 106.6

Stack Opening, (inches, dia.): 24.5 Exhaust Flow Rate (scfm): 2,800 Exhaust Temperature (°F): 110

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 04-A-663-S2

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

#### **Monitoring Requirements**

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

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

# **RASI Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
200	200	Clamshell #1 To Hopper #1	10-A-286-S1
201	201	Hopper #1 To Conveyor #1	10-A-287-S1
202	202	Conveyor #1 To Conveyor #2	10-A-288-S1
203	203	Conveyor #2 To Conveyor #3	10-A-289-S1
204	204	Conveyor #3 To Conveyor #4	10-A-290-S1
205	205	Conveyor #4 To Stacker	10-A-291-S1
206	206	Stacker To Coal Pile	10-A-292-S1
207	207	Coal/Coke Pile Receiving	10-A-297-S1
208	208	Coal/Coke Loader To Trucks	10-A-295-S1
209	209	Salt Loader To Trucks	10-A-296-S1
210	210	East Haul Road Traffic	10-A-298-S1
211	211	West Haul Road Traffic	10-A-299-S1
213	213	Coal/Coke Pile	10-A-293
214	214	Salt Pile	10-A-294
215	215	Coal/Coke Pile	11-A-452

#### **Emission Point ID Number: 200**

#### **Associated Equipment**

Emission	Emission Unit Description	Raw	Rated	Construction
Unit		Material	Capacity	Permit
200	Clamshell #1 to Hopper #1	Coal, Coke, Salt	500 tons/hr	10-A-286-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-286-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. The amount of material received from or loaded into barges at this facility shall not exceed a maximum of 5600 tons of material each operating day.
- 3. Clamshell #2 shall remain uncertified for use. If at any time the facility wishes to use clamshell #2, a construction permit shall be obtained for that equipment prior to its use.
- 4. Clamshell #1 is authorized to be operated at both the east and far west barge unloading locations.
- 5. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.
- 6. At the end of each working day, record the type and amount (in tons) of each material received at this facility by barge.
- 7. For each working day, calculate the total amount (in tons) of material received at this facility. This calculation shall be completed no later than 7 days after the end of the month.

Authority for Requirement: DNR Construction Permit 10-A-286-S1

Monitoring Requirements	
The owner/operator of this equipment shall comply with the monitoring r	equirements listed below.
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂

Authority for Requirement: 567 IAC 22.108(3)

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

Yes 🗌 No 🖂

#### **Emission Point ID Number: 201**

## **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
201	Hopper #1 To Conveyor #1	Coal, Coke, Salt	800 tons/hr	10-A-287-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-287-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. This unit shall only handle material received by the facility from barges.
- 3. Receiving Hopper #1 is authorized to be operated at both the east and far west barge unloading locations.
- 4. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.

Authority for Requirement: DNR Construction Permit 10-A-287-S1

<b>Monitoring Requirements</b>	
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: 202, 203, 204, 205, 206

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
202	Conveyor #1 To Conveyor #2	Coal, Coke, Salt	800 tons/hr	10-A-288-S1
203	Conveyor #2 To Conveyor #3	Coal, Coke, Salt	800 tons/hr	10-A-289-S1
204	Conveyor #3 To Conveyor #4	Coal, Coke, Salt	800 tons/hr	10-A-290-S1
205	Conveyor #4 To Stacker	Coal, Coke, Salt	800 tons/hr	10-A-291-S1
206	Stacker to Coal Pile	Coal, Coke, Salt	800 tons/hr	10-A-292-S1

## **Applicable Requirements**

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

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

Pollutant: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-288-S1, 10-A-289-S1, 10-A-290-S1,

10-A-291-S1, 10-A-292-S1, 567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. This unit shall only handle material received by the facility from barges.
- 3. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.

#### Process Throughput for Radial Stacker EP 206 and Conveyor #1 EP 202:

1. One of either the Radial Stacker EP 206 or Conveyor #1 EP 202 is authorized to be operated at the far west barge unloading location, whereas both can be operated at the east barge area.

Authority for Requirement: DNR Construction Permit 10-A-288-S1, 10-A-289-S1, 10-A-290-S1, 10-A-291-S1, 10-A-292-S1

Monitoring Requirements	
The owner/operator of this equipment shall comply with the monitoring	g 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: 207**

## **Associated Equipment**

Emission	Emission Unit Description	Raw	Rated	Construction
Unit		Material	Capacity	Permit
207	Coal/Coke Pile Receiving	Coal, Coke	150 tons/hr	10-A-297-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-297-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. No more than 1600 tons of material shall be unloaded from trucks in this operation each working day.
- 3. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.
- 4. At the end of each day, record the amount (in tons) of material unloaded from trucks in this operation during that working day.

Authority for Requirement: DNR Construction Permit 10-A-297-S1

Monitoring Requirements  The owner/operator of this equipment shall comply with the monitoring re-	equirements 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: 208**

## **Associated Equipment**

Emission			Rated	Construction
Unit			Capacity	Permit
208	Coal/Coke Loader to Trucks	Coal, Coke	150 tons/hr	10-A-295-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-295-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. No more than 1600 tons of material shall be loaded into trucks in this operation each working day.
- 3. One of either Loader EP 208 or EP 209 is authorized to be operated at the far west barge unloading location, whereas both can be operated at the east barge area.
- 4. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.
- 5. At the end of each day, record the amount (in tons) of material loaded into trucks in this operation during that working day.

Authority for Requirement: DNR Construction Permit 10-A-295-S1

Monitoring Requirements	
The owner/operator of this equipment shall comply with the monitoring	g 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: 209**

## **Associated Equipment**

Emission			Rated	Construction
Unit Description		Material	Capacity	Permit
209	Salt Loader to Trucks	Salt	150 tons/hr	10-A-296-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-296-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. No more than 1600 tons of material shall be loaded into trucks in this operation each working day.
- 3. One of either Loader EP 208 or EP 209 is authorized to be operated at the far west barge unloading location, whereas both can be operated at the east barge area.
- 4. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.
- 5. At the end of each day, record the amount (in tons) of material loaded into trucks in this operation during that working day.

Authority for Requirement: DNR Construction Permit 10-A-296-S1

Monitoring Requirements  The owner/operator of this equipment shall comply with the monitoring re	equirements 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**

## **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
210	East Haul Road Traffic	Truck Traffic	64 trucks/day	10-A-298-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-298-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. The unpaved portion of this haul road shall have a maximum silt content of 6%.
- 3. The paved surface of this haul road shall have a maximum silt loading of 1.06%.
- 4. The maximum number of truck round trips on this road shall not exceed 64 per day.
- 5. The owner/operator shall add dust suppressant to the unpaved portion of this haul road to reduce fugitive dust by 80%.
- 6. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.

- 7. The owner/operator of this road shall take samples monthly of the silt content of the unpaved portion of this road. If after twelve (12) months, all samples have shown compliance with the appropriate standard, sampling may be reduced to quarterly. If at any time, a quarterly sample exceeds the appropriate limit, sampling shall return to monthly until twelve (12) consecutive samples show compliance. The sampling shall be performed in accordance to the methodology outlined in USEPA's AP-42 Appendix C.1 and analysis performed in accordance with Appendix C.2 of the same document.
- 8. The owner/operator of this road shall take samples monthly of the silt loading of the paved portion of this road. If after twelve (12) months, all samples have shown compliance with the appropriate standard, sampling may be reduced to quarterly. If at any time, a quarterly sample exceeds the appropriate limit, sampling shall return to monthly until twelve (12) consecutive samples show compliance. The sampling shall be performed in accordance to the methodology outlined in USEPA's AP-42 Appendix C.1 and analysis performed in accordance with Appendix C.2 of the same document.
- 9. At the end of each day, record the number of truck round trips that were taken on this road during that day.
- 10. Record the date, type and amount of dust suppressant added to the unpaved portions of this haul road.

Authority for Requirement: DNR Construction Permit 10-A-298-S1

#### **Monitoring Requirements**

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

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

## **Emission Point ID Number: 211**

#### **Associated Equipment**

<b>Emission Emission</b> Unit		Raw	Rated	Construction	
Unit Description		Material	Capacity	Permit	
211	West Haul Road Traffic	Truck Traffic	64 trucks/day	10-A-299-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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permit 10-A-299-S1

567 IAC 23.3(2)"c"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The operation of this unit shall be limited to the time period between 6:00 AM and 10:00 PM each operating day.
- 2. The unpaved portion of this haul road shall have a maximum silt content of 6%.
- 3. The paved surface of this haul road shall have a maximum silt loading of 1.06%.
- 4. The maximum number of truck round trips on this road shall not exceed 64 per day.
- 5. The owner/operator shall add dust suppressant to the unpaved portion of this haul road to reduce fugitive dust by 80%.
- 6. For each operating day, record the time the equipment at the Roquette America Railroad facility started operating and ends operating that particular day. If none of the equipment is used during a calendar day, the operating log shall note that the facility did not operate that day.
- 7. The owner/operator of this road shall take samples monthly of the silt content of the unpaved portion of this road. If after twelve (12) months, all samples have shown compliance with the appropriate standard, sampling may be reduced to quarterly. If at any time, a quarterly sample exceeds the appropriate limit, sampling shall return to monthly until twelve (12) consecutive samples show compliance. The sampling shall be performed in accordance to the methodology outlined in USEPA's AP-42 Appendix C.1 and analysis performed in accordance with Appendix C.2 of the same document.

- 8. The owner/operator of this road shall take samples monthly of the silt loading of the paved portion of this road. If after twelve (12) months, all samples have shown compliance with the appropriate standard, sampling may be reduced to quarterly. If at any time, a quarterly sample exceeds the appropriate limit, sampling shall return to monthly until twelve (12) consecutive samples show compliance. The sampling shall be performed in accordance to the methodology outlined in USEPA's AP-42 Appendix C.1 and analysis performed in accordance with Appendix C.2 of the same document.
- 9. At the end of each day, record the number of truck round trips that were taken on this road during that day.
- 10. Record the date, type and amount of dust suppressant added to the unpaved portions of this haul road.

Authority for Requirement: DNR Construction Permit 10-A-299-S1

<b>Monitoring Requirements</b>
--------------------------------

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: 213, 214, 215

**Associated Equipment** 

Emission	Emission	<b>Emission Unit</b>	Raw	Rated	Construction
Point	Unit	Description	Material	Capacity	Permit
213	213	Coal/Coke Pile	Coal, Coke	4.59 Acres	10-A-293
214	214	Salt Pile	Salt	2.30 Acres	10-A-294
215	215	Coal/Coke Pile	Coal, Coke	22,000 ft <sup>2</sup>	11-A-452

## **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: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

Authority for Requirement: DNR Construction Permits 10-A-293, 10-A-294, 11-A-452, 567 IAC 23.3(2)"c"

#### **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 🖂
A-41	

# Refineries A & B Equipment List

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
7-21	AB-2	Carbon Receiver Tank	96-A-1038-S4
16-26	AB-19	Sodium Bisulfate Tank	97-A-665
16-31	AB-3	Syrup Spray Dryer	75-A-179-S1
16-34	AB-21	DE Bulk Bag System	01-A-024-S1
19-1	AB-22	Bag Packager	02-A-158-S2
	AB-24	Bagger	02-A-138-82
19-2	19-2	Bag Handling System	10-A-478
64-A	AB-4A	B Syrup Spray Dryer	73-A-208-S3
	AB-4B	B Syrup Spray Dryer Burner	/3-A-208-83

#### **Emission Point ID Number: 7-21**

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
AB-2	Carbon Receiver Tank	CE 7-21: Wet Scrubber	Carbon	2.5 tons/hr	96-A-1038-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 96-A-1038-S4

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.30 lb/hr

Authority for Requirement: DNR Construction Permit 96-A-1038-S4

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

Authority for Requirement: DNR Construction Permit 96-A-1038-S4

567 IAC 23.3(2)"a"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The yearly carbon transfer rate shall not exceed 1,648 tons per rolling twelve (12) month total.
- 2. The date, railcar identification number, the hours of carbon transfer, and the total weight of carbon in the railcar. In addition, the carbon transfer rate (in lbs/hr) shall be calculated for each railcar.
- 3. Determine the cumulative amount of carbon transferred (in tons/yr) on a rolling twelve (12) month basis for each month of operation.

Authority for Requirement: DNR Construction Permit 96-A-1038-S4

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

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 56.5

Stack Opening, (inches, dia.): 10 Exhaust Flow Rate (scfm): 850 Exhaust Temperature (°F): 100

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 96-A-1038-S4

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

#### **Monitoring Requirements**

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

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

142

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: 16-26**

## **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
AB-19	Sodium Bisulfate Tank	Sodium Bisulfate	1.5 tons/hr	97-A-665

## **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 97-A-665

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.70 lb/hr

Authority for Requirement: DNR Construction Permit 97-A-665

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

Authority for Requirement: DNR Construction Permit 97-A-665

567 IAC 23.3(2)"a"

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

Authority for Requirement: DNR Construction Permit 97-A-665

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): 78

Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (acfm): 1,300
Exhaust Temperature (°F): 75

Discharge Style: NA<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 97-A-665

<sup>(1)</sup>The facility states that the discharge for this stack is vertical.

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

#### **Monitoring Requirements**

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

#### Opacity

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 (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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 readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

Authority for Requirement: 567 IAC 22.108(14)	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

JWJ 144 08-TV-006R2, 3/25/2022

#### **Emission Point ID Number: 16-31**

#### **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
AB-3	Syrup Spray Dryer	CE AB-3: Wet Scrubber	Carbon	5,000 lb/hr	75-A-179-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 75-A-179-S1

567 IAC 23.3(2)"d"

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

Authority for Requirement: DNR Construction Permit 75-A-179-S1

567 IAC 23.3(2)"d"

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 81 Stack Opening, (inches, dia.): 24 Exhaust Flow Rate (scfm): 31,500 Exhaust Temperature (°F): 190 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 75-A-179-S1

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

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

	/	• 4	•	D	•	4
	/ 1	nita	rinσ	Ren	uirem	ente
Τ.Δ	1	,,,,,,,,,,	<u> </u>	1100	uncin	

The owner/operator	of this	equipment	shall	comply	with t	the m	onitoring	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: 16-34**

## Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
AB-21	DE Bulk Bag System	CE AB-21a: Baghouse CE AB-21b: Baghouse	Diatomaceous Earth	600 lb/hr	01-A-024-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 01-A-024-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.02 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-024-S1

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

Authority for Requirement: DNR Construction Permit 01-A-024-S1

567 IAC 23.3(2)"a"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The yearly DE usage for this emission unit shall not exceed 360 tons/yr.
- 2. Determine the cumulative amount of DE used (in tons/yr.) on a rolling-12-month basis for each month of operation.

Authority for Requirement: DNR Construction Permit 01-A-024-S1

<sup>(1)</sup> If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard. This standard is in lieu of an initial compliance test for PM10.

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

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

Stack Opening, (inches, dia.): 4 Exhaust Flow Rate (scfm): 200 Exhaust Temperature (°F): 150

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 01-A-024-S1

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

#### **Monitoring Requirements**

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

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

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: 19-1**

# **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
AB-22	Bag Packager	CE AB-22: Baghouse	Sweeteners	5,420 lb/hr	02 4 150 62
AB-24	Bagger	CE AB-23: Baghouse	Sweeteners	1,875 lb/hr	02-A-158-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 02-A-158-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.34 lb/hr

Authority for Requirement: DNR Construction Permit 02-A-158-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.34 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 02-A-158-S2

567 IAC 23.4(7)

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

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

Stack Height, (ft., from the ground): 77.4

Stack Opening, (inches, dia.): 14 Exhaust Flow Rate (scfm): 2,000 Exhaust Temperature (°F): 95

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-158-S2

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

#### **Monitoring Requirements**

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

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

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.

150

#### **Emission Point ID Number: 19-2**

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
19-2	Bag Handling System	19-2: Baghouse	Solulys, CSS	3.65 tons/hr	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 10-A-478

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.17 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-478

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

Authority for Requirement: DNR Construction Permit 10-A-478

567 IAC 23.4(7)

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The facility shall operate the baghouse (CE 19-2) according to manufacturer specifications and maintenance schedule.
- 2. The facility shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the baghouse (CE 19-2).

Authority for Requirement: DNR Construction Permit 10-A-478

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

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

Stack Height, (ft., from the ground): 29

Stack Opening, (inches, dia.): 14 Exhaust Flow Rate (scfm): 2,000 Exhaust Temperature (°F): 95

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 10-A-478

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 64-A**

# **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
AB-4A	Natural Gas Fired Dryer	AB-4: Venturi Scrubber with Wet Cyclonic Collector	Corn Syrup, Steep Water	2.47 tons/hr corn syrup solids (operational), or 3,300 lb/hr (Solulys), dry	73-A-208-S3
AB-4B			Natural Gas	15 MMBtu/hr	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 73-A-208-S3

567 IAC 23.3(2)"d"

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

Emission Limit(s): 6.94 lb/hr

Authority for Requirement: DNR Construction Permit 73-A-208-S3

Pollutant: Particulate Matter

Emission Limit(s): 6.94 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 73-A-208-S3

567 IAC 23.4(7)

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

Emission Limit(s): 0.70 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 73-A-208-S3

567 IAC 23.3(3)"e"

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

# Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This emission unit is limited to firing on natural gas only.
- 2. The scrubber (CE-AB-4) shall be inspected and maintained according to manufacturer's specifications.
- 3. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the control equipment (CE-AB-4), which shall include:
  - a. the date and time of any inspections/maintenance.
  - b. Any issue identified during the inspection/maintenance and date the issue was resolved.
- 4. The scrubber (CE-AB-4) shall maintain a pressure drop across the scrubber that is between 2.5 and 3.5 inches water column.
  - a. The owner or operator shall record the pressure drop in inches water column at least once per day.
  - b. If the pressure drop varies outside the range established, the owner or operator shall record the time, date, and actions taken to correct the situation and when the pressure drop is back within the required range.
- 5. The scrubber (CE-AB-4) shall maintain a total liquid flow rate that is above 160 gallons per minute.
  - a. The owner or operator shall record the liquid flow rate at least once per day.
  - b. If the flow rate is below the minimum, the owner or operator shall record the time, date, and actions taken to correct the situation and when the flow rate is above the required rate.
- 6. The throughput of these emission units shall not exceed 2.47 tons per hour of corn syrup solids (CSS), averaged over a calendar day.
  - a. For each calendar day, the owner or operator shall record the amount, in tons, of CSS processed by this equipment. This determination shall be completed by the end of the next calendar day.
  - b. For of each calendar day, the owner or operator shall record the number of hours this equipment operated. This determination shall be completed by the end of the next calendar day.
  - c. For each calendar day, the owner or operator shall calculate the daily average hourly production rate by dividing the amount of material processed on that calendar day by the number of hours this equipment operated on that calendar day. This calculation shall be performed no later than 7 days after the end of the month.
- 7. The owner or operator shall record monthly the total amount of corn syrup solids (CSS) produced by the emission units venting through emission point 64-A, on both a monthly and 12-month rolling basis.

- 8. The maximum amount of Solulys produced by the emission units venting through emission point EP 64-A shall not exceed 6500 metric tons per 12-month rolling period.
- 9. The owner or operator shall record monthly the total amount of Solulys produced by the emission units venting through emission point 64-A, on both a monthly and 12-month rolling basis.
- 10. The maximum amount of corn syrup solids (CSS) produced by the emission units venting through emission point EP 64-A shall not exceed [19,868 1.9 x Solulys<sub>prod</sub>] metric tons per 12-month rolling period. Where, Solulys<sub>prod</sub> equals the amount of Solulys produced per 12-month rolling period, in metric tons. This amount of CSS shall be calculated monthly.
  - a. Based upon the above equation the maximum amount of CSS produced annually is 19,868 metric tons, should no Solulys be produced; and 7583 metric tons should the maximum amount of Solulys be produced.

Authority for Requirement: DNR Construction Permit 73-A-208-S3

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 81 Stack Opening, (inches, dia.): 36 Exhaust Flow Rate (scfm): 45,340 Exhaust Temperature (°F): 110

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 73-A-208-S3

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?  Operating Requirements and Monitoring satisfy CAM requirements, additional CAM Plan not required.	Yes 🛛 No 🗌
Authority for Requirement: 567 IAC 22.108(3)	

# **Refinery C Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
66-18	RC-2	Carbon Regeneration Furnace #1	77-A-149-S6
66-21	RC-5	Soda Ash Storage	97-A-599
66-27	RC-3	Filter Aid Storage	77-A-331
66-37	RC-16	Carbon Regeneration Furnace #2	01-A-086-S1

#### **Emission Point ID Number: 66-18**

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
RC-2	Carbon Regeneration Furnace #1	RC-2: Venturi Scrubber	Carbon/ Natural Gas	0.625 tons/hr/ 5 MMBtu/hr	77-A-149-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 77-A-149-S6

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.47 lb/hr

Authority for Requirement: DNR Construction Permit 77-A-149-S6

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

Authority for Requirement: DNR Construction Permit 77-A-149-S6

567 IAC 23.3(2)"a"

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

Emission Limit(s): 3.8 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 77-A-149-S6

567 IAC 23.3(3)"e"

<sup>(1)</sup> An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput shall not exceed 15 tons/day.
- 2. The fuel used shall be either natural gas or LP gas.
- 3. The combined throughput of Carbon Regeneration Furnace #1 and Carbon Regeneration Furnace #2 shall not exceed 37.5 tons/day.
- 4. The daily throughput, in tons/day, of Carbon Regeneration Furnace #1.
- 5. The combined daily throughput, in tons/day, of Carbon Regeneration Furnace #1 and Carbon Regeneration Furnace #2.

Authority for Requirement: DNR Construction Permit 77-A-149-S6

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 151

Stack Opening, (inches, dia.): 20 Exhaust Flow Rate (scfm): 2,240 Exhaust Temperature (°F): 165

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 77-A-149-S6

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

Monitoring	Requireme	nts

The owner/operator of this equipment shall comply with the monitoring re	quirements listed below.
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🛛 No 🗌

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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

Yes No No

#### **Emission Point ID Number: 66-21**

#### **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
RC-5	Soda Ash Storage	RC-5: Scrubber	Soda Ash	15 tons/hr	97-A-599

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 97-A-599

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.37 lb/hr

Authority for Requirement: DNR Construction Permit 97-A-599

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

Authority for Requirement: DNR Construction Permit 97-A-599

567 IAC 23.3(2)"a"

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 102

Stack Opening, (feet, dia.): 0.833 Exhaust Flow Rate (scfm): 435 Exhaust Temperature (°F): 115

Discharge Style: NA

Authority for Requirement: DNR Construction Permit 97-A-599

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

#### **Monitoring Requirements**

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

## Opacity

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 (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from observation of the violation.

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

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

Authority for Requirement: 567 IAC 22.108(14)	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

**Emission Point ID Number: 66-27** 

## Associated Equipment

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
RC-3	Filter Aid Storage	RC-3: Baghouse	Diatomaceous Earth	10 tons/hr	77-A-331

# **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): 19.2 lb/hr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 77-A-331

567 IAC 23.3(2)"a"

#### **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.

<sup>(1)</sup> based on a process weight rate of 10 tons/hr

#### **Emission Point ID Number: 66-37**

# Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
RC-16	Carbon Regeneration Furnace #2	RC-16: Scrubber	Carbon/ Natural Gas	1.08 tons/hr, 13.15 MMBtu/hr	01-A-086-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 01-A-086-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 1.02 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-086-S1

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

Authority for Requirement: DNR Construction Permit 01-A-086-S1

567 IAC 23.3(2)"a"

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

Emission Limit(s): 4.56 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 01-A-086-S1

567 IAC 23.3(3)"e"

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 22.7 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-086-S1

<sup>(1)</sup> An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput shall not exceed 26 tons/day.
- 2. The fuel used shall be either natural gas or LP gas.
- 3. The combined throughput of Carbon Regeneration Furnace #1 and Carbon Regeneration Furnace #2 shall not exceed 37.5 tons/day.
- 4. The daily throughput, in tons/day, of Carbon Regeneration Furnace #1.
- 5. The combined daily throughput, in tons/day, of Carbon Regeneration Furnace #1 and Carbon Regeneration Furnace #2.

Authority for Requirement: DNR Construction Permit 01-A-086-S1

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 151

Stack Opening, (inches, dia.): 28 Exhaust Flow Rate (scfm): 6,980 Exhaust Temperature (°F): 280

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 01-A-086-S1

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

Monitoring	Requireme	nts

The owner/operator of this equipment shall comply with the monitoring re	quirements listed below.
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance 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.

Yes No No

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

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

Authority for Requirement: 567 IAC 22.108(3)

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

# **Refinery D Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
84-D	RD-1	Refinery D House Vacuum System	94-A-602
	RD-2	Drying	
84-10	RD-3	Dedusting	94-A-603-S1
	RD-4	Reclaim Tank	

#### **Emission Point ID Number: 84-D**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
RD-1	Refinery D House Vacuum System	RD-1: Baghouse	Dextrose	0.5 tons/hr	94-A-602

# **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): 0.013 gr/dscf, 0.0655 lb/hr, 0.29 ton/yr Authority for Requirement: DNR Construction Permit 94-A-602

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner shall follow the specific startup and shutdown procedures provided by the baghouse vendor and shall maintain a record of periods of startup, shutdown or malfunction.
- 2. The owner shall perform routine monitoring and routine maintenance according to Vendor's specifications. A log of actual inspections observations and maintenance shall be made available to the IDNR personnel upon request.
- 3. Dust collected in the baghouse shall be discharge only into closed containers without creating additional air emissions.
- 4. Record the date and time of each inspection of the baghouse associated with this emission point.
- 5. Record the date, time, and description each maintenance is performed on the baghouse associated with this emission point.

Authority for Requirement: DNR Construction Permit 94-A-602, 567 IAC 22.108(3)"b"

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

Stack Height, (ft., from the ground): 51

Stack Opening, (feet, dia.): 0.5 Exhaust Flow Rate (acfm): 600 Exhaust Temperature (°F): 68

Discharge Style: NA

Authority for Requirement: DNR Construction Permit 94-A-602

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

#### **Monitoring Requirements**

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

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

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: 84-10**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
RD-2	Drying	DD 2	Dextrose	7 tons/hr	
RD-3	Dedusting	RD-2: Scrubber	Dextrose	7 tons/hr	94-A-603-S1
RD-4	Reclaim Tank	Scrubber	Dextrose	7 tons/hr	

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 40%

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

Pollutant: Particulate Matter

Emission Limit(s): 2.1 lbs/hr, 0.01 gr/dscf

Authority for Requirement: DNR Construction Permit 94-A-603-S1

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 155

Stack Opening, (feet, dia.): 3.0 Exhaust Flow Rate (scfm): 24,500 Exhaust Temperature (°F): 90

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 94-A-603-S1

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

	/	• 4	•	D	•	4
	/ 1	nita	rinσ	Ren	uirem	ente
Τ.Δ	1	,,,,,,,,,,	<u> </u>	1100	uncin	

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.

# Refinery E Equipment List

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
82-1	RE-1	DE Unloading	02-A-561-S1
82-2	RE-2	DE Silo Fluidizer	02-A-562-S1
82-3	RE-3	DE Transfer System	02-A-563

#### **Emission Point ID Number: 82-1**

#### **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
RE-1	DE Unloading	CE 82-1: Baghouse	Diatomaceous Earth	15,000 lb/hr	02-A-561-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 02-A-561-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.05 lb/hr

Authority for Requirement: DNR Construction Permit 02-A-561-S1

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

Authority for Requirement: DNR Construction Permit 02-A-561-S1

567 IAC 23.3(2)"a"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. For each shipment of diatomaceous earth (DE) to this emission unit the owner or operator shall track the date received and the quantity of the material unloaded.
- 2. The date of each DE shipment to this emission unit and the amount of DE received on that date.

Authority for Requirement: DNR Construction Permit 02-A-561-S1

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

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

Stack Height, (ft., from the ground): 10

Stack Opening, (inches, dia.): 5 Exhaust Flow Rate (scfm): 565 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-561-S1

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

#### **Monitoring Requirements**

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

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

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: 82-2**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
RE-2	DE Silo Fluidizer	CE RE-2: Baghouse	Diatomaceous Earth	3,000 lb/hr	02-A-562-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 02-A-562-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.02 lb/hr

Authority for Requirement: DNR Construction Permit 02-A-562-S1

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

Authority for Requirement: DNR Construction Permit 02-A-562-S1

567 IAC 23.3(2)"a"

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

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

Stack Height, (ft., from the ground): 52.63

Stack Opening, (inches, dia.): 5 Exhaust Flow Rate (scfm): 240 Exhaust Temperature (°F): 70

Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 02-A-562-S1

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

#### **Monitoring Requirements**

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

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

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: 82-3**

## **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
RE-3	DE Transfer	CE 82-3: Baghouse	Diatomaceous Earth	3,000 lb/hr	02-A-563

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 02-A-563

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.03 lb/hr

Authority for Requirement: DNR Construction Permit 02-A-563

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

Authority for Requirement: DNR Construction Permit 02-A-563

567 IAC 23.3(2)"a"

## Operating Requirements with Associated Monitoring and Recordkeeping

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

1. Maintain records of maintenance done to EU RE-3 on a monthly basis to ensure proper operation.

Authority for Requirement: DNR Construction Permit 02-A-563

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

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

Stack Height, (ft., from the ground): 90

Stack Opening, (inches, dia.): 4 Exhaust Flow Rate (scfm): 395 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-563

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

#### **Monitoring Requirements**

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

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

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.

# Refinery F Equipment List

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID	
103-1	RF-17	DE Unloading and Storage	10-A-232	
103-2	RF-18	DE Transfer	10-A-233	
	RF-4	Tank		
	RF-4B	Tank		
107-1	RF-5	Tank	99-A-083-S7	
	RF-6	Dryer		
	RF-7	Cooler		
	RF-8	Grinder		
107.2	RF-9 a-1	12 Dedusting Pickup Points	00 4 004 00	
107-2	RF-10	House Vacuum w/ 20 Pickup Points	99-A-084-S6	
	RF-14	Powder Blending		
107-3	RF-15	Carbohydrate Transfer System	10-A-235-S1	
	RF-20A	Tank		
	RF-20B	Tank		
107-4	RF-20C	Tank	10-A-236-S1	
	RF-21	Tank		
	RF-22	Dryer		
107-5	RF-23	Carbohydrate Cooler	10-A-237	
107-6	RF-25	Carbohydrate Dryer	10-A-238	
107-7	RF-26	Carbohydrate Cooler	10-A-239	
107-8	RF-27	Carbohydrate Grinder	10-A-240	
107-9	RF-28	Dedusting	10-A-241	
	RF-30	Packaging	10-A-241	
107-10	RF-29	House Vacuum	10-A-242	
107-B	RF-24	Carbohydrate Remelt Tank	10-A-243-S1	
107-C	RF-31	Carbohydrate Remelt Tank	10-A-244	
108-1	RF-3	Ethanol Storage Tank	99-A-082	
108-2	RF-3B	Ethanol Storage Tank	10-A-245	
109-1	RF-11	Manual Additive Hopper/Feeder		
	RF-13	Dedusting System 2	01-A-880-S2	
	RF-16	House Vacuum		

#### **Emission Point ID Number: 103-1**

#### **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
RF-17	DE Unloading and Storage	RF-17: Baghouse	Diatomaceous Earth	27,000 lb/hr	10-A-232

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 10-A-232

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.01 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-232

Pollutant: Particulate Matter

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

Authority for Requirement: DNR Construction Permit 10-A-232

567 IAC 23.3(2)"a"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the baghouse according to the manufacturer's recommendation.
- 2. The owner or operator shall maintain a log of all maintenance and inspection activities. This log shall include, but may not be limited to, the date and time of each inspection of the baghouse occurs, any items identified during the inspection that need to be addressed, the date and time each maintenance activity is started, and a description of the corrective actions taken during the maintenance of the baghouse.

Authority for Requirement: DNR Construction Permit 10-A-232

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

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 68

Stack Opening, (inches): 6 Exhaust Flow Rate (scfm): 600 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 10-A-232

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

#### **Monitoring Requirements**

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

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

**Emission Point ID Number: 103-2** 

#### **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
RF-18	DE Transfer	RF-18: Baghouse	Diatomaceous Earth	1,600 lb/hr	10-A-233

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 10-A-233

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.004 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-233

Pollutant: Particulate Matter

Emission Limit(s): 0.004 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 10-A-233

567 IAC 23.3(2)"a"

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the baghouse according to the manufacturer's recommendation.
- 2. The owner or operator shall maintain a log of all maintenance and inspection activities. This log shall include, but may not be limited to, the date and time of each inspection of the baghouse occurs, any items identified during the inspection that need to be addressed, the date and time each maintenance activity is started, and a description of the corrective actions taken during the maintenance of the baghouse.

181

Authority for Requirement: DNR Construction Permit 10-A-233

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

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

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

Stack Opening, (inches): 18 x 24 Exhaust Flow Rate (scfm): 22 Exhaust Temperature (°F): Ambient

Discharge Style: Indoors

Authority for Requirement: DNR Construction Permit 10-A-233

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 107-1**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
RF-4	Tank		Carbohydrate	874 gallons	
RF-4B	Tank		Carbohydrate	597 gallons	
RF-5	Tank	CE 107-1:	Centrate	290 gallons	99-A-083-S7
RF-6	Dryer	Scrubber	Carbohydrate Crystals	5,939 lb/hr	77-A-003-37
RF-7	Cooler		Dried Carbohydrate	5,939 lb/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 99-A-083-S7

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.48 lb/hr

Authority for Requirement: DNR Construction Permit 99-A-083-S7

Pollutant: Particulate Matter

Emission Limit(s): 0.48 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 99-A-083-S7

567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC) Emission Limit(s): 10.37 lb/hr, 38.4 tons/yr

Authority for Requirement: DNR Construction Permit 99-A-083-S7

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The emission units in this permit shall not exceed an annual production rate of 19,931 metric tons of carbohydrate per rolling twelve (12) months.
- 2. Record the monthly amount of production of carbohydrate from the emission units in this permit. Calculate and record 12-month rolling total production of carbohydrate.
- 3. The liquid feed rate to the scrubber shall be a minimum of 5.0 cubic meters/hr (1,320.9 gallons/hr).
- 4. Install and continually operate a strip chart recorder or other recording device to continually record the scrubber liquid feed rate.
- 5. The inlet water temperature to the scrubber shall not exceed 15 °C.
- 6. Install and continually operate a strip chart recorder or other recording device to continually record the inlet water temperature to the scrubber.
- 7. Any additive added to the scrubber liquid during the compliance testing to enhance the removal efficiency of the scrubber shall be added at the same rate that it was added for the most recent accepted compliance test which demonstrated compliance with all applicable emission limitations.
- 8. If an additive to the scrubber liquid is used and it is continually added to the scrubber liquid, install and continually operate a strip chart recorder or other recording device to continually record the additive feed rate. If an additive to the scrubber liquid is used and it is mixed with the scrubber liquid in a batch operation, record the time each batch is mixed as well as the amount of additive added to the scrubber liquid.

Authority for Requirement: DNR Construction Permit 99-A-083-S7

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 74

Stack Opening, (inches, dia.): 18 Exhaust Flow Rate (scfm): 4,405 Exhaust Temperature (°F): 120

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 99-A-083-S7

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

Monitoring Requirements  The owner/operator of this equipment shall comply with the monitoring r	equirements listed below
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?  Operating Requirements and Monitoring satisfy CAM requirements, additional CAM Plan not required.	Yes No

Authority for Requirement: 567 IAC 22.108(3)

185

#### **Emission Point ID Number: 107-2**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
RF-8	Grinder	RF-8a: Cyclone RF-8: Baghouse	Corn Byproducts	3.86 tons/hr	
RF-9	12 Dedusting Pickup Points	RF-9: Baghouse	Corn Byproducts	3.86 tons/hr (each)	
RF-10	House Vacuum w/ 20 Pickup Points	RF-10: Baghouse	Corn Byproducts	3.86 tons/hr	99-A-084-S6
RF-14	Powder Blending	RF-14: Baghouse	Corn Byproducts	0.89 tons/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 99-A-084-S6

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.3 lb/hr

Authority for Requirement: DNR Construction Permit 99-A-084-S6

Pollutant: Particulate Matter

Emission Limit(s): 0.3 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 99-A-084-S6

567 IAC 23.4(7)

186

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

*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): 7,500 Exhaust Temperature (°F): 120

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 99-A-084-S6

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

#### **Monitoring Requirements**

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

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

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: 107-3** 

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
RF-15	Carbohydrate Transfer System	RF-15: Baghouse	Carbohydrates	2.97 tons/hr	10-A-235-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 10-A-235-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.58 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-235-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.58 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 10-A-235-S1

567 IAC 23.4(7)

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the baghouse according to the manufacturer's recommendation.
- 2. The owner or operator shall maintain a log of all maintenance and inspection activities. This log shall include, but may not be limited to, the date and time of each inspection of the baghouse occurs, any items identified during the inspection that need to be addressed, the date and time each maintenance activity is started, and a description of the corrective actions taken during the maintenance of the baghouse.

Authority for Requirement: DNR Construction Permit 10-A-235-S1

188

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

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

Stack Height, (ft., from the ground): 142

Stack Opening, (inches, dia.): 17 Exhaust Flow Rate (scfm): 3,000 Exhaust Temperature (°F): 100 Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 10-A-235-S1

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

#### **Monitoring Requirements**

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

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

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: 107-4**

### **Associated Equipment**

Emission Unit	Emission Unit Description	Control Raw Equipment Material		Rated Capacity	Construction Permit
RF-20A	Tank		Carbohydrate	994 gallons	
RF-20B	Tank	CE DE 20	Carbohydrate	994 gallons	
RF-20C	Tank	CE RF-20: Scrubber	Carbohydrate	994 gallons	10-A-236-S1
RF-21	Tank	Schubber	Centrate	1,321 gallons	
RF-22	Dryer		Carbohydrate	8,815 lbs/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 10-A-236-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.58 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-236-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.58 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 10-A-236-S1

567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 4.68 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-236-S1

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The liquid feed rate to the scrubber shall be a minimum of 8.0 cubic meters/hr. (2,113.4 gallons/hr.).
- 2. The inlet water temperature to the scrubber shall not exceed 10 °C.
- 3. Any additive added to the scrubber liquid during the compliance testing to enhance the removal efficiency of the scrubber shall be added at the same rate that it was added for the most recent accepted compliance test which demonstrated compliance with all applicable emission limitations.
- 4. Record the monthly amount of production of carbohydrate from the emission units in this permit. Calculate and record 12-month rolling total production of carbohydrate.
- 5. Install and continually operate a strip chart recorder or other devise to continually record the scrubber liquid feed rate.
- 6. Install and continually operate a strip chart recorder or other devise to continually record the inlet water temperature to the scrubber.
- 7. If an additive to the scrubber liquid is used and it is continually added to the scrubber liquid, install and continually operate a strip chart recorder or other devise to continually record the additive feed rate. If an additive to the scrubber liquid is used and it is mixed with the scrubber liquid in a batch operation, record the time each batch is mixed as well as the amount of additive added to the scrubber liquid.

Authority for Requirement: DNR Construction Permit 10-A-236-S1

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 92 Stack Opening, (inches, dia.): 29.5 Exhaust Flow Rate (scfm): 7,300 Exhaust Temperature (°F): 155 Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 10-A-236-S1

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

Monitoring Requirements  The owner/operator of this equipment shall comply with the monitoring re	quirements listed below
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?  Operating Requirements and Monitoring satisfy CAM requirements, additional CAM Plan not required.	Yes 🖂 No 🗌

**Emission Point ID Number: 107-5, 107-6, 107-7** 

## **Associated Equipment**

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
107-5	RF-23	Carbohydrate	CE RF-23:	Cambalayduata	4.41	10-A-237
107-3	KF-23	Cooler	Baghouse	Carbohydrate	tons/hr	10-A-23/
107-6	RF-25	Carbohydrate	CE RF-25:	Cambalayduata	1.57	10-A-238
107-6	KF-23	Dryer	Baghouse	Carbohydrate	tons/hr	10-A-238
107-7	RF-26	Carbohydrate	CE RF-26:	Carbohydrate	1.57	10-A-239
10/-/	KF-20	Cooler	Baghouse	Carbonydrate	tons/hr	10-A-239

## **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.

Emission Point	Opacity	Particulate Matter (PM <sub>10</sub> )	Particulate Matter	Volatile Organic Compounds (VOC)	Authority for Requirement
107-5	40%(1)	0.36 lb/hr	0.36 lb/hr, 0.1 gr/dscf	0.74 lb/hr	10-A-237, 567 IAC 23.3(2)"d", 567 IAC 23.4(7)
107-6	40%(1)	0.17 lb/hr	0.17 lb/hr, 0.1 gr/dscf	NA	10-A-238, 567 IAC 23.3(2)"d", 567 IAC 23.4(7)
107-7	40%(1)	0.17 lb/hr	0.17 lb/hr, 0.1 gr/dscf	NA	10-A-239, 567 IAC 23.3(2)"d", 567 IAC 23.4(7)

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the baghouse according to the manufacturer's recommendation.
- 2. The owner or operator shall maintain a log of all maintenance and inspection activities. This log shall include, but may not be limited to, the date and time of each inspection of the baghouse occurs, any items identified during the inspection that need to be addressed, the date and time each maintenance activity is started, and a description of the corrective actions taken during the maintenance of the baghouse.

Authority for Requirement: DNR Construction Permit 10-A-237, 10-A-238, 10-A-239

#### **Emission Point Characteristics**

The emission points shall conform to the specifications listed below.

Emission Point	107-5	107-6	107-7
Stack Height, (ft., from the ground)	92	104	142
Stack Opening, (inches, dia.)	32	32	17
Exhaust Flow Rate (scfm)	8,300	6,470	6,470
Exhaust Temperature (°F)	86	176	100
Discharge Style	Vertical Unobstructed	Vertical Obstructed	Vertical Obstructed
Authority for Requirement	10-A-237	10-A-238	10-A-239

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

	/	• 4	•	D	•	4
	/ 1	nita	rinσ	Ren	uirem	ente
Τ.Δ	1	,,,,,,,,,,	<u> </u>	1100	uncin	

The owner/operator of this equipment shall comply with the monitoring	requirements tisted below.
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🔀
Facility Maintained Operation & Maintenance Plan Required?	Yes 🛛 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 107-8, 107-9, 107-10

## **Associated Equipment**

Emission	Emission	<b>Emission Unit</b>	Control	Raw	Rated	Construction	
Point	Unit	Description	Equipment	Material	Capacity	Permit	
107-8	RF-27	Carbohydrate	CE RF-27:	Carbohydrate	1.57	10-A-240	
107-8	Kr-2/	Grinder	Baghouse	Carbonydrate	tons/hr	10-A-240	
	RF-28	Dedusting		Carbohydrate	1.57		
107-9	KF-28	Dedusting	CE RF-28:	Carbonydrate	tons/hr	10-A-241	
107-9	RF-30	Packaging	Baghouse	Carbohydrate	1.57	10-A-241	
	KF-30	Packaging		Carbonyurate	tons/hr		
107-10	RF-29	House Vacuum	CE RF-29:	Process	1.57	10-A-242	
107-10	KF-29	House vacuum	Baghouse	Material	tons/hr	10-A-242	

## **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.

Emission Point	Opacity	Particulate Matter (PM <sub>10</sub> )	Particulate Matter	Authority for Requirement
107-8	40%(1)	0.09 lb/hr	0.09 lb/hr, 0.1 gr/dscf	10-A-240, 567 IAC 23.3(2)"d", 567 IAC 23.4(7)
107-9	40%(1)	0.12 lb/hr	0.12 lb/hr, 0.1 gr/dscf	10-A-241, 567 IAC 23.3(2)"d", 567 IAC 23.4(7)
107-10	40%(1)	0.04 lb/hr	0.04 lb/hr, 0.1 gr/dscf	10-A-242, 567 IAC 23.3(2)"d", 567 IAC 23.4(7)

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the baghouse according to the manufacturer's recommendation.
- 2. The owner or operator shall maintain a log of all maintenance and inspection activities. This log shall include, but may not be limited to, the date and time of each inspection of the baghouse occurs, any items identified during the inspection that need to be addressed, the date and time each maintenance activity is started, and a description of the corrective actions taken during the maintenance of the baghouse.

Authority for Requirement: DNR Construction Permit 10-A-240, 10-A-241, 10-A-242

#### **Emission Point Characteristics**

The emission points shall conform to the specifications listed below.

Emission Point	107-8	107-9	107-10
Stack Height, (ft., from the ground)	142	142	148
Stack Opening, (inches, dia.)	18	20	12
Exhaust Flow Rate (scfm)	3,380	4,500	1,500
Exhaust Temperature (°F)	85	Ambient	Ambient
Discharge Style	Vertical Obstructed	Vertical Obstructed	Vertical Obstructed
Authority for Requirement	10-A-240	10-A-241	10-A-242

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

<b>Monitoring Requirements</b>	
The owner/operator of this equipment shall comply with the monitoring	g 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: 107-B**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
RF-24	Carbohydrate Remelt Tank	Carbohydrate	4.41 tons/hr	10-A-243-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 10-A-243-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.34 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-243-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.34 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 10-A-243-S1

567 IAC 23.4(7)

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

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 142

Stack Opening, (inches, dia.): 16 Exhaust Flow Rate (scfm): 800 Exhaust Temperature (°F): 149 Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 10-A-243-S1

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 107-C**

#### **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
RF-31	Carbohydrate Remelt Tank	Carbohydrate	1.57 tons/hr	10-A-244

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 10-A-244

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.07 lb/hr

Authority for Requirement: DNR Construction Permit 10-A-244

Pollutant: Particulate Matter

Emission Limit(s): 0.07 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 10-A-244

567 IAC 23.4(7)

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

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

Stack Height, (ft., from the ground): 92

Stack Opening, (inches, dia.): 16 Exhaust Flow Rate (scfm): 800 Exhaust Temperature (°F): 140

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 10-A-244

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

#### **Monitoring Requirements**

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

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

### **Emission Point ID Number: 108-1**

#### **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
RF-3	Ethanol Storage Tank	Ethanol	5,900 gallons	99-A-082

## **Applicable Requirements**

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

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

There are no applicable emission limits for this emission unit at this time.

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The tank's capacity shall be less than 40 m<sup>3</sup>.
- 2. The owner/operator shall keep records showing the maximum capacity of the storage tank.

Authority for Requirement: DNR Construction Permit 99-A-082, 567 IAC 22.108(3)

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 16

Stack Opening, (inches, dia.): 12

Exhaust Flow Rate (scfm): Natural Vent Exhaust Temperature (°F): Ambient

Discharge Style: NA

Authority for Requirement: DNR Construction Permit 99-A-082

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

<b>Monitoring Requirements</b>	
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: 108-2**

#### **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction Permit
Unit	Description	Material	Capacity	
RF-3B	Ethanol Storage Tank	Ethanol	12,950 gallons	10-A-245

## **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.

See "Plant-Wide Conditions" for plant-wide emission limits.

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The throughput of this unit shall not exceed a maximum of 2,985,000 kilograms (kg) per twelve (12) month period, rolled monthly.
- 2. At the end of each month, record the throughput, in kilograms (kg), of material through this unit over the previous month.
- 3. At the end of each month, record the throughput, in kilograms (kg), of material through this unit over the previous twelve (12) months.

Authority for Requirement: DNR Construction Permit 10-A-245

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

Stack Height, (ft., from the ground): 16

Stack Opening, (inches, dia.): 12

Exhaust Flow Rate (scfm): Displacement Exhaust Temperature (°F): Ambient Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 10-A-245

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

#### **Monitoring Requirements**

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

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

#### **Emission Point ID Number: 109-1**

#### **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
RF-11	Manual Additive Hopper/Feeder	CF 100 1	Additive	110 lb/hr	
RF-13	Dedusting System 2	CE 109-1: Baghouse	Additive	5,400 lb/hr	01-A-880-S2
RF-16	#2 House Vacuum w/ 12 pickup points	Dagnouse	Additive	5,400 lb/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 01-A-880-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.28 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-880-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.28 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 01-A-880-S2

567 IAC 23.4(7)

<sup>(1)</sup> An exceedance of the indicator opacity of "no visible emission" 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).

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

Stack Height, (ft., from the ground): 39

Stack Opening, (inches, dia.): 16 Exhaust Flow Rate (scfm): 4,700 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 01-A-880-S2

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

#### **Monitoring Requirements**

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

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

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.

## **Roads Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
P-F-1	PLN-1	Plant Roads and Parking Lots	NA

### **Emission Point ID Number: P-F-1**

## Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
PLN-1	Plant Roads and Parking Lots	Vehicle Traffic	58,484 VMT/yr	NA

## **Applicable Requirements**

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

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

Pollutant: Fugitive Dust

Emission Limit: 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, without taking reasonable precautions to prevent a nuisance. All persons 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.

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

#### **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 🖂

## **Starch Equipment List**

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
20-A-3-1	ST-20	Pneu-Vac Blower System	09-A-710-S1
20-A-5	ST-03	#3 Bin Storage	NA
20-A-7	ST-04	#4 Bin Storage	NA
20-A-9	ST-05	#5 Bin Storage	NA
20-A-11	ST-06	#6 Bin Storage	NA
20-A-13	ST-07	#7 Bin Storage	13-A-073
20-A-15	ST-08	#8 Bin Storage	98-A-376-S2
20-A-17	ST-09	#9 Bin Storage	98-A-377-S2
61-1	ST-17	#2 P&M Starch Dryer	01-A-1031-S1
61-4	ST-18	Corn Starch Flash Dryer #1	09-A-633
61-3 61-5	ST-24	Building #61 Exhaust Vents	NA
63-1	ST-23	Palletizer	NA
63-2	ST-19	House Vacuum	NA
63-4	ST-10	Bulk Starch Loadout	82-A-075
63-5	ST-11	#1 Packing Room (Bagging)	NA
63-6	ST-12	#1 Starch Storage/Packing Bin	NA
63-7	ST-13	#2 Starch Storage Bin	78-A-179
63-8	ST-14	Bagging Room	85-A-093
63-10	ST-15	#12 Starch Bin	81-A-152-S1
63-12	ST-16	Reclaim Starch System	89-A-071
	ST-25	Bulk Bag Unloader	
63-13	ST-26	Repackaging Screener	19-A-068
	ST-27	Bag Sewer/Sealer	

# Emission Point ID Numbers: 20-A-5, 20-A-7, 20-A-9, 20-A-11, 20-A-13, 61-3, 61-5, 63-1, 63-2, 63-5

## Associated Equipment

Emission	Emission	<b>Emission Unit</b>	Control	Raw	Rated	Construction
Point	Unit	Description	Equipment	Material	Capacity	Permit
20-A-5	ST-03	#3 Bin Storage	ST-03: Baghouse	Corn Starch	7 tons/hr	NA
20-A-7	ST-04	#4 Bin Storage	ST-04: Baghouse	Corn Starch	7 tons/hr	NA
20-A-9	ST-05	#5 Bin Storage	ST-05: Baghouse	Corn Starch	7 tons/hr	NA
20-A-11	ST-06	#6 Bin Storage	ST-06: Baghouse	Corn Starch	7 tons/hr	NA
61-3	ST-24	Davildin a #61	NA	Starch	15 + 2 = 2 /12 =	NA
61-5	S1-24	Building #61	NA		15 tons/hr	NA
63-1	ST-23	Palletizer	NA	Starch	15 tons/hr	NA
63-2	ST-19	House Vacuum	ST-19: Baghouse	Corn Starch	0.5 tons/hr	NA
63-5	ST-11	#1 Packing Room (Bagging)	ST-11: Baghouse	Corn Starch	0.5 tons/hr	NA

## **Applicable Requirements**

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

The emissions from this emission each 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

	/	• 4	•	D	•	4
	/ 1	nita	rinσ	Ren	uirem	ente
Τ.Δ	1	,,,,,,,,,,	<u> </u>	1100	uncin	

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? (Required for ST-03, ST-04, ST-05, ST-06, ST-19, ST-11,)	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: 20-A-3-1**

### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-20	Pneu-Vac Blower System	ST-20: Baghouse	Corn Starch	20 tons/hr	09-A-710-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 09-A-710-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.11 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-710-S1

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

Authority for Requirement: DNR Construction Permit 09-A-710-S1

567 IAC 23.4(7)

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

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

Stack Height, (ft., from the ground): 30 Stack Opening, (inches, dia.): 8.25 Exhaust Flow Rate (scfm): 2,000 Exhaust Temperature (°F): 100 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 09-A-710-S1

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes No 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: 20-A-13**

## **Associated Equipment**

<b>Emission Point</b>	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
			CE ST-07:	Corn	•	
20-A-13	ST-07	#7 Bin Storage	Cartridge Filter	Starch	7 tons/hr	13-A-073
20 4 15	CT 00	#0 Din Changes	CT 00. De alegana	Corn	7 tons/hr	98-A-376-S2
20-A-15	ST-08	#8 Bin Storage	ST-08: Baghouse	Starch	/ tons/nr	98-A-3/0-S2
20 A 17	ST-09	#0 Din Stance	ST-09: Baghouse	Corn	7 tons/hr	98-A-377-S2
20-A-17	31-09	#9 Bin Storage	31-09. Dagnouse	Starch	/ tons/fif	90-A-3//-32

## **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.

Emission Point	Opacity	Particulate Matter (PM <sub>10</sub> )	Particulate Matter	Authority for Requirement
20 4 12	No	0.052.11./1	0.1 /1 0	13-A-073,
20-A-13	Visible	0.052 lb/hr	0.1 gr/dscf	567 IAC 23.3(2)"d",
	Emissions			567 IAC 23.4(7)
	No			98-A-376-S2,
20-A-15	Visible	0.052 lb/hr	0.1 gr/dscf	567 IAC 23.3(2)"d",
	Emissions			567 IAC 23.4(7)
	No			98-A-377-S2,
20-A-17	Visible	0.052 lb/hr	0.1 gr/dscf	567 IAC 23.3(2)"d",
	Emissions		_	567 IAC 23.4(7)

#### **Emission Point Characteristics**

The emission points shall conform to the specifications listed below.

Emission Point	20-A-13	20-A-15	20-A-17
Stack Height, (ft., from the ground)	85.5	85.9	85.9
Stack Opening, (inches, dia.)	8 x 8	8 x 8	8 x 8
Exhaust Flow Rate (scfm)	2,000	2,000	2,000
Exhaust Temperature (°F)	80	80	80
Discharge Style	Horizontal	Horizontal	Horizontal
Authority for Requirement	13-A-073	98-A-376-S2	98-A-377-S2

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

#### **Monitoring Requirements**

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

## Opacity

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible 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 visible emissions 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.

J 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🛛 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-17	#2 P&M Starch Dryer	ST-17: Scrubber	Corn Starch	11,000 lb/hr	01-A-1031-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 01-A-1031-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 2.57 lb/hr

Authority for Requirement: DNR Construction Permit 01-A-1031-S1

Pollutant: Particulate Matter

Emission Limit(s): 22.75 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 01-A-1031-S1

567 IAC 23.4(7)

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

Emission Limit(s): 9.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 01-A-1031-S1

567 IAC 23.3(3)"e"

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 2. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 01-A-1031-S1

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 119

Stack Opening, (inches, dia.): 42 Exhaust Flow Rate (scfm): 31,600 Exhaust Temperature (°F): 110

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 01-A-1031-S1

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

#### **Monitoring Requirements**

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

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

# Compliance Assurance Monitoring Plan CAM Plan for EP 61-1; Scrubber (ST-17)

## I. Background

A. Emissions Units

Description: #2 P&M Starch Dryer

Identification: ST-17

Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: DNR Construction Permit 01-A-1031

Particulate emission limit: PM: 22.75 lb/hr.

PM10: 2.57 lb/hr

Opacity emission limit: 40%

Current Monitoring requirements: Daily visible emission (NVE) observations

C. Control Technology: Scrubber

# II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

**Table 1. Monitoring Approach** 

General Criteria	
I. Indicator	Differential pressure across the control device
Measurement Approach	Differential pressure measured across the control device by a differential pressure gauge.
II. Indicator Range	Pressure drop will be checked daily when operating to ensure that the pressure drop is in the range of 0.5 to 1.5 Bar during operation of the unit, except during periods of startup, shutdown, or cleaning of control equipment.

III. Performance Criteria	
A. Data Representativeness	Pressure drop less than 0.5 Bar or greater than 1.5 Bar would indicate a decrease in the performance the scrubber and potentially indicate an increase of particulate emissions.
B. Verification of Operational Status	Records of pressure drop readings will be maintained for five years.
C. QA/QC Practices and Criteria	Pressure gauges will be maintained using procedures that take into account manufacturer's specifications. Scrubber will be maintained as specified in the Title V permit.
D. Monitoring Frequency	The pressure drop readings shall be conducted daily during a period when the emission unit on this emission point is in operation.
	If pressure drop falls out of the range specified above, corrective action shall be taken as soon as possible, but no later than eight hours from observation.
E. Data Collection Procedures	Electronic or hard copy of daily differential pressure readings will be available upon request.
	Corrective actions resulting from excursions will be recorded.
IV. Justification	Pressure differential was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal particulate control performance.
QIP Threshold	The QIP threshold is six excursions in a six month period.

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-18	Corn Starch Flash Dryer #1	ST-18: Cyclones (2 in parallel)	Starch	5.43 tons/hr	09-A-633

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 09-A-633

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 22.22 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-633

Pollutant: Particulate Matter

Emission Limit(s): 22.22 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-633

567 IAC 23.4(7)

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

Emission Limit(s): 2.0 lb/hr, 500 ppmv

Authority for Requirement: DNR Construction Permit 09-A-633

567 IAC 23.3(3)"e"

<sup>(1)</sup> An exceedance of the indicator opacity of 20% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The maximum amount of starch processed by this emission unit shall not exceed 10,850 pounds per hour.
- 2. The facility shall calculate and record the average hourly production rate (lbs/hr) for this emission unit on a daily basis.

Authority for Requirement: DNR Construction Permit 09-A-633

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 72 Stack Opening, (inches, dia.): 36 Exhaust Flow Rate (scfm): 34,275 Exhaust Temperature (°F): 140-164 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-633

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

#### **Monitoring Requirements**

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

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
<b>Compliance Assurance Monitoring (CAM) Plan Required?</b> (Required for PM <sub>10</sub> and Particulate Matter)	Yes 🛛 No 🗌
Authority for Requirement: 567 IAC 22.108(3)	

# Compliance Assurance Monitoring Plan CAM Plan for EP 61-4; Cyclones (ST-18)

## I. Background

A. Emissions Units

Description: #1 P&M Starch Dryer

Identification: ST-18

Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: DNR Construction Permit 09-A-633

Particulate emission limit: PM: 22.22 lb/hr

0.1 gr/dscf PM10: 22.22 lb/hr

Opacity emission limit: 40%

Current Monitoring requirements: Daily visible emission checks; calculate and record

average hourly production rate (lb/hr) for this emission

unit on a daily basis

C. Control Technology: Cyclones

#### II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

225

**Table 1. Monitoring Approach** 

General Criteria	
I. Indicator	Visible emissions
Measurement Approach	Visible emissions from the control device exhaust while the emission unit is operating.
II. Indicator Range	No visible emissions shall be observed, except during startup, shutdown, or cleaning of the control equipment. Visible emissions require corrective action and recordkeeping requirements.
QIP Threshold	The QIP threshold is six excursions in a six month period.
III. Performance Criteria	
A. Data Representativeness	Visible emissions are a key indicator that a cyclone is operating properly. Visible emissions occur when material can be seen exiting a cyclone's waste stream.
B. Verification of Operational Status	Records of visible emission checks will be maintained for five years.
C. QA/QC Practices and Criteria	The observer will be trained to detect visible emissions, but will not necessarily be Method 9 certified. Cyclones will be maintained as outlined in the Title V permit.
D. Monitoring Frequency	Visible emission readings shall be conducted daily during a period when the emission unit on this emission point is in operation.
	If visible emissions are detected, corrective action shall be taken as soon as possible, but no later than eight hours from observation. If corrective action does not return observation to no visible emissions, then a Method 9 observation will be required.
	If weather conditions prevent the observer from conducting a visible emission observation, the observer shall note such conditions on observation sheet. At least three attempts shall be made to retake readings at approximately two hour intervals throughout the day. If weather prohibits all three attempts, an observation shall be made on the next operating day that weather permits.
E. Data Collection Procedures	Electronic or hard copy of daily visible emission readings will be available upon request.
	Corrective actions resulting from excursions will be recorded.
IV. Justification	Visible emission detection was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal PM control performance.

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-10	Bulk Starch Loadout	ST-10: Baghouse	Corn Starch	36 tons/hr	82-A-075

# **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): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.4(7)

Pollutant: Particulate Matter Emission Limit(s): 41.57 lb/hr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 82-A-075

567 IAC 23.3(2)"a"

#### **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 🖂

<sup>(1)</sup>Based on a process weight of 36 tons/hr

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-12	#1 Starch Packing Bin	Cartridge Filters (CE ST-12)	Starch	15 tons/hr	85-A-092-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 85-A-092-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.2 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 85-A-092-S2

567 IAC 23.4(7)

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the control equipment according to the facility's (Plant No. 56-01-009) operation and maintenance plan.
  - a. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include:
    - i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
    - ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved; and,
    - iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved.

Authority for Requirement: DNR Construction Permit 85-A-092-S2

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 11 Exhaust Flow Rate (scfm): 2,200 Exhaust Temperature (°F): 80 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 85-A-092-S2

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

#### **Monitoring Requirements**

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

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

JWJ 229 08-TV-006R2, 3/25/2022

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-13	#2 Starch Storage Bin	ST-13: Baghouse	Corn Starch	24 tons/hr	78-A-179

# **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): 0.1 gr./dscf

Authority for Requirement: 567 IAC 23.4(7)

#### **Monitoring Requirements**

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

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

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.

# Associated Equipment

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-14	Bagging Room	ST-14: Baghouse	Corn Starch	0.50 tons/hr	85-A-093

# **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): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.4(7)

Pollutant: Particulate Matter Emission Limit(s): 2.58 lbs/hr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 85-A-093,

567 IAC 23.3(2)"a"

<sup>(1)</sup> based on a process weight rate of 0.5 tons/hr.

	/	• 4	•	D	•	4
N	/10	nita	ring	Kea	uirem	ients
Τ,		11100		1100		CILUD

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.

#### **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-15	#12 Starch Bin	ST-15: Baghouse	Corn Starch	7 tons/hr	81-A-152-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): No Visible Emissions<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 81-A-152-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.13 lb/hr

Authority for Requirement: DNR Construction Permit 81-A-152-S1

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

Authority for Requirement: DNR Construction Permit 81-A-152-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): 54.6

Stack Opening, (inches, dia.): 7.9 Exhaust Flow Rate (scfm): 1,500 Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 81-A-152-S1

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

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

### **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 none occur when the emission unit on this emission point is at or near full capacity. If visible 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 visible emissions 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(3)

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

**Associated Equipment** 

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
ST-16	Reclaim Starch System	ST-16: Baghouse	Corn Starch	3 tons/hr	89-A-071

# **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): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.4(7)

#### **Monitoring Requirements**

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

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

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.

# **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
ST-25	Bulk Bag Unloader	CE CE 25		4 tons/hr	
ST-26	Repackaging Screener	CE ST-25:	Corn Starch	4 tons/hr	19-A-068
ST-27	Bag Sewer/Sealer	Baghouse	Starch	4 tons/hr	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 19-A-068,

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): 0.6 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 19-A-068,

567 IAC 23.4(7)

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall maintain the Baghouse (CE ST-25) according to the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the Baghouse (CE ST-25). This log shall include, but is not necessarily limited to:
  - a. The date and time any inspection and/or maintenance was performed on the Baghouse (CE ST-25);
  - 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.

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 10 Stack Opening, (inches, dia.): 16 x 16 Exhaust Flow Rate (scfm): 7,000 Exhaust Temperature (°F): 80 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 19-A-068

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

### **Monitoring Requirements**

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

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

# Steam & Co-Gen Equipment List

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID	
112	112	Waste Heat Boiler	08-A-280-S3	
121	121	CFB Boiler	06-A-518-P2	
	122	Crusher #1		
122	122a	Receiving Hopper #1	06 4 510 92	
122	122b	Receiving Conveyor #1	06-A-519-S2	
	122c	Receiving Bucket Elevator #1	7	
	123	Crusher #2		
122	123a	Receiving Hopper #2	06 4 520 62	
123	123b	Receiving Conveyor #2	06-A-520-S2	
	123c	Receiving Bucket Elevator #2		
125	125	Limestone Storage Silo #1	06-A-522-S2	
125B	125B	Limestone Storage Silo #2	07-A-1560-S1	
126	126	Ash Silo Conveying System	06-A-523-S2	
126B	126B	Ash Silo Conveying System	07-A-1561-S1	
126C	126C	Ash Silo Conveying System	07-A-1562-S1	
126D	126D	Ash Silo Conveying System	07-A-1563-S1	
127	127	Ash Silo Bin Vent	06-A-524-S1	
129	129	Belt Conveyor	06-A-526-S2	
131	131	Bunker #1	06-A-528-S2	
132	132	Bunker #2	06-A-529-S2	
133	133	Bunker #3	06-A-530-S2	
135	135	Drag Feed Conveyor	06 4 522 52	
133	135B	Limestone Conveyor Receiving	06-A-532-S2	
200-1	CG-3	Dew Point Heater	02-A-694-P1	
201-1	CG-4	Diesel Starting Engine	02-A-695-P3	
201-2	CG-2	Combustion Turbine, Simple Cycle	02-A-693-P1	
201-5	201-5	Package Boiler	12-A-200-S2	
201-6	201-6	Package Boiler	12-A-201-S2	
201-8	201-8	Package Boiler	12-A-202-S2	
202-1	CG-1	Combustion Turbine/Duct Burner, Combined Cycle	02-A-692-P2	

#### **Associated Equipment**

Emission	<b>Emission Unit</b>	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
112	Waste Heat Boiler	Natural Gas	21.3 MMBtu/hr	08-A-280-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: Opacity

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

Authority for Requirement: DNR Construction Permit 08-A-280-S3

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.43 lb/hr

Authority for Requirement: DNR Construction Permit 08-A-280-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.43 lb/hr, 0.6 lb/MMBtu

Authority for Requirement: DNR Construction Permit 08-A-280-S3

567 IAC 23.3(2)"b"

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

Authority for Requirement: DNR Construction Permit 08-A-280-S3

567 IAC 23.3(3)"e"

#### New Source Performance Standards (NSPS) Applicability:

The waste Heat Boiler is subject to Subparts A (General Provision; 40 CFR §60.1 – 40 CFR §60.19) and Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generation Units; 40 CFR §60.40c – 40 CFR §60.48c) of the New Source Performance Standards (NSPS).

Authority for Requirement: 40 CFR 60 Subpart Dc

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

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The Waste Heat Boiler is limited to firing on natural gas and the waste heat from the reactor.
- 2. All applicable operating limits set forth in NSPS Subparts A (40 CFR §60.1 40 CFR §60.19) and Dc (40 CFR §60.40c 40 CFR §60.48c).
- 3. All applicable recordkeeping set forth in NSPS Subparts A (40 CFR 60.1 40 CFR 60.19) and Dc (40 CFR 60.40c 40 CFR 60.48c).
  - a. 60.48c(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
  - b. 60.48c(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
- 4. The number of times emissions are vented through EP 113 and the amount of emissions vented through EP 113 on a rolling twelve (12) month basis.

Authority for Requirement: DNR Construction Permit 08-A-280-S3

40 CFR 60 Subparts A & Dc

567 IAC 23.1(2)"111"

#### **Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 18 Exhaust Flow Rate (scfm): 4,000 Exhaust Temperature (°F): 375

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 08-A-280-S3

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

#### **Monitoring Requirements**

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

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

## **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity	Construction Permit
121	CFB Boiler	121A: Baghouse 121B: Dry Scrubber 121C: Lime Injection 121D: SNCR	121A: CO 121B: SO <sub>2</sub> 121D: Opacity	See Operating Limits	996 MMBtu/hr	06-A-518-P2

# **Applicable Requirements**

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

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

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 29.88 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Particulate Matter (State) Emission Limit(s): 29.88 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 149.40 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 149.40 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 9.00 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 153.38 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Lead (Pb)

Emission Limit(s): 0.124 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Total Reduced Sulfur (TRS)

Emission Limit(s): 2.15 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

Emission Limit(s): 4.90 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Flourides (F) Emission Limit(s): 0.69 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-518-P2

#### Best Available Control Technology (BACT) Emission Limits:

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

Emission Limit(s): 392.6 tons/yr<sup>(1)</sup>, 0.09 lb/MMBtu<sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 06-A-518-P2

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 671.8 tons/yr<sup>(1)</sup>, 0.154 lb/MMBtu<sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 06-A-518-P2

(1) This standard is a 12-month rolling total.

(2) This standard is a 30-day rolling average not including periods of startup, shutdown, and malfunction.

(3) This standard is a one (1) calendar day average.

#### New Source Performance Standards (NSPS) Emission Limits:

Pollutant: Opacity

Emission Limit(s): 20% (6 minute average)<sup>(4)</sup>

Authority for Requirement: DNR Construction Permit 06-A-518-P2

567 IAC 23.1(2)"ccc"

Pollutant: Particulate Matter (Federal)

Emission Limit(s): Per 40 CFR §60.43b(h)(1) and 40 CFR §60.43b(h)(2), no owner or operator shall

discharge PM emissions to the atmosphere greater than either:

1. 13 ng/J (0.030 lb/MMBTU) heat input or

2. 22 ng/J (0.051 lb/MMBTU) heat input and 0.2 percent of the combustion

concentration (99.8% reduction).

Authority for Requirement: DNR Construction Permit 06-A-518-P2

567 IAC 23.1(2)"ccc"

<sup>(4)</sup> Except for one 6-minute period per hour of not more than 27% opacity.

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

Emission Limit(s): Per 40 CFR §60.42b(k)(1), no owner or operator shall discharge SO<sub>2</sub> emissions to the

atmosphere greater than 87 ng/J (0.20 lb./MMBTU) heat input or eight percent (8%) of the potential SO<sub>2</sub> emission rate (92% reduction) and 520 ng/J (1.2 lb/MMBTU)

heat input.

Authority for Requirement: DNR Construction Permit 06-A-518-P2

567 IAC 23.1(2)"ccc"

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

Emission Limit(s): 0.60 lb/MMBtu heat input<sup>(5)</sup>

Authority for Requirement: DNR Construction Permit 06-A-518-P2

567 IAC 23.1(2)"ccc"

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

# New Source Performance Standards (NSPS) Applicability:

The Circulating Fluidized Bed (CFB) Boiler (EU-121) is subject to Title 40 of the Code of Federal Regulations (CFR) Part 60, Subpart Db – *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* [567 IAC 23.1(2)"*ccc*"]. In addition, The Circulating Fluidized Bed (CFB) Boiler (EU-121) is subject to 40 CFR Part 60, Subpart – *General Provisions* [§60.1 - §60.19].

Authority for Requirement: 40 CFR 60 Subpart Db

#### National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The Circulating Fluidized Bed (CFB) Boiler (EU-121) is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters [567 IAC 23.1(4)"dd", 40 CFR Part 63, Subpart DDDDD].

### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The Circulating Fluidized Bed (CFB) Boiler (EU-121) is limited to firing on natural gas, coal, petroleum coke, agricultural by-products (i.e., those by-products associated with corn processing, soybean processing, etc.), biomass (e.g., switch grass, sugar cane, cornstalks, etc.), untreated waste timber products (e.g., bark, sawdust, chunks of wood, etc.), waste paper products from the facility, and tire-derived fuel (TDF).
- 2. The sulfur content of the fuel combusted shall not exceed 6.0 percent by weight.
- 3. The owner or operator shall comply with the applicable operating limits set forth in 40 CFR Part 60, Subpart A General Provisions [§60.1 §60.19] and in 40 CFR Part 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [§60.40b §60.49b], including those not specifically mentioned in this permit.
- 4. The owner or operator shall inspect and maintain the control equipment (CE-121a CE-121d) according to the facility's operation and maintenance plan.
- 5. As indicated in 40 CFR §60.49b(d)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each day and shall calculate the annual capacity factor for each fuel combusted during the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- 6. As indicated in 40 CFR §60.49b(f), the owner or operator shall maintain records of opacity.
- 7. The owner or operator shall maintain records of the following information for each steam generating unit operating day:
  - a. The calendar date:
  - b. The fuel(s) combusted that day;
  - c. The total amount of each fuel combusted; and
  - d. An analysis showing the sulfur content representative of the fuel combusted for that day.
- 8. As indicated in 40 CFR §60.49b(h), the owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. Excess emission reports shall be submitted following the procedures in 567 IAC Chapter 24.
- 9. The owner or operator shall comply with applicable reporting and recordkeeping set forth in 40 CFR Part 60, Subpart A *General Provisions* [§60.1 §60.19] and in 40 CFR Part 60, Subpart Db *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* [§60.40b §60.49b], including those not specifically mentioned in this permit.
- 10. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but it is not limited to:
  - a. The date and time any inspection and/or maintenance was performed on the control equipment;
  - b. Any issues identified during inspection;
  - c. Any issues addressed during the maintenance activities; and

245

d. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 06-A-518-P2 567 IAC 23.1(2)"ccc"

#### **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 350

Stack Opening, (inches, dia.): 120 Exhaust Flow Rate (scfm): 200,138 Exhaust Temperature (°F): 185

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-A-518-P2

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

#### **Monitoring Requirements**

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

#### **Continuous Emissions Monitoring:**

- 1. NSPS SO<sub>2</sub>, Opacity, and NO<sub>x</sub> Emission Standards Monitoring Requirements:
  - a. The owner or operator shall continuously monitor emissions of sulfur dioxide (SO<sub>2</sub>) discharged to the atmosphere through EP-121. Therefore, in accordance with 40 CFR §60.47b(a), the owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) for measuring SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations and shall record the output of the CEMS. For units complying with the percent reduction standard, the SO<sub>2</sub> and either O<sub>2</sub> or CO<sub>2</sub> concentrations shall be monitored at the inlet and outlet of the SO<sub>2</sub> control device.
  - b. The owner or operator shall continuously monitor the opacity of emissions discharged to the atmosphere through EP-121. Therefore, in accordance with 40 CFR §60.48b(a), the owner or operator shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of emissions and shall record the output of the COMS
  - c. The owner or operator shall continuously monitor emissions of nitrogen oxides (NO<sub>x</sub>) discharged to the atmosphere through EP-121. Therefore, in accordance with 40 CFR §60.48b(b)(1), the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring NO<sub>x</sub> concentrations and shall record the output of the CEMS.
  - d. Per 40 CFR §60.47b and §60.48b, the owner or operator may use SO<sub>2</sub>, NO<sub>x</sub>, O<sub>2</sub>, and CO<sub>2</sub> CEMS installed and certified for 40 CFR Part 75 *Continuous Emission Monitoring* [§75.1 §75.75] to meet the requirements of NSPS Subpart Db provided the conditions in 40 CFR §60.47b, §60.48b, and §60.49b are met.

- 2. Non-NSPS SO<sub>2</sub>, NO<sub>x</sub>, and CO Emission Standards Monitoring Requirements:
  - a. The owner or operator shall demonstrate compliance with the non-NSPS SO<sub>2</sub>, and NO<sub>x</sub> emission standards in this permit through the use of CEMS as required by NSPS Subpart Db.
  - b. The owner or operator shall continuously monitor emissions of carbon monoxide (CO) discharged to the atmosphere through EP-121. Therefore, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring CO concentrations and shall record the output of the CEMS.
- 3. Requirements for the Continuous Emission Monitoring Systems (CEMS) and the Continuous Opacity Monitoring System (COMS) in this Permit:
  - a. The CEMS required by this permit to monitor emissions of SO<sub>2</sub> and NO<sub>x</sub> discharged to the atmosphere through EP-121 shall be designed to meet the requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2) Specifications and Test Procedures for SO<sub>2</sub> and NO<sub>x</sub> Continuous Emission Monitoring Systems in Stationary Sources and Performance Specification 6 (PS6) Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources.
  - b. The CEMS required by this permit to monitor emissions of CO discharged to the atmosphere through EP-121 shall be designed to meet the requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 (PS4) Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources and Performance Specification 6 (PS6) Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources.
  - c. All CEMS required by this permit shall comply with the applicable requirements in Appendix F to 40 CFR Part 60 *Quality Assurance Procedures*, including, but not limited to the following requirements:
    - i. The owner or operator shall develop and implement a quality control (QC) program. As a minimum, each QC program shall include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:
      - Calibration of the CEMS;
      - Calibration drift determination and adjustment of the CEMS;
      - Preventive maintenance of the CEMS (including spare parts inventory);
      - Data recording, calculations, and reporting;
      - Accuracy audit procedures including sampling and analysis methods; and
      - Program of corrective action for malfunctioning CEMS.

247

- ii. Whenever excessive inaccuracies occur for two consecutive quarters, the owner or operator shall revise the current written procedures or shall modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.
- iii. The owner or operator shall keep on-site a copy of these written procedures and shall make them available for inspection by the Department.
- iv. The owner or operator shall conduct a Relative Accuracy Test Audit (RATA) at least once every four calendar quarters and shall submit RATA reports to the Department as indicated in this permit (see Permit Condition 8 *Notification, Reporting, and Recordkeeping*).
- d. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

- e. If requested by the Department, the owner or 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.
- f. The COMS required by this permit to monitor the opacity of emissions discharged to the atmosphere through EP-121 shall be designed to meet the requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 (PS1) Specifications and Test Procedures for Continuous Opacity Monitoring Systems in Stationary Sources. When operating the COMS, the following must be considered:
  - i. If opacity interference due to water droplets exists in the stack, the opacity is monitored upstream of the interference.
  - ii. If opacity interference is experienced at all locations, alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Administrator).
- 4. Operation and Data Handling Requirements for the CEMS in this Permit:
  - a. All CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission unit associated with EP-121, except for CEMS breakdowns and repairs. Data is recorded during calibration checks and zero span adjustments.
    - i. The 1-hour average SO<sub>2</sub>, NO<sub>x</sub>, and CO emission rates measured by the CEMS required by this permit shall be used to demonstrate compliance with the emission standards in this permit. At least two data points must be used to calculate each 1-hour average.
    - ii. For each hour of missing emission data for SO<sub>2</sub>, NO<sub>x</sub>, and CO, the owner or operator shall substitute data as follows:
      - If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall substitute data by means of the automated data acquisition and handling system for each hour of missing data period according to the following procedures:
        - For a missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by the CEMS for the hour before and the hour after the missing data period.
        - o For a missing data period greater than 24 hours, substitute the greater of:
          - The 90<sup>th</sup> percentile hourly pollutant concentration recorded by the CEMS during the previous 720 quality-assured monitor operating hours; or
          - The average of the hourly pollutant concentrations recorded by the CEMS for the hour before and the hour after the missing data period.

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

Authority for Requirement: DNR Construction Permit 06-A-518-P2 567 IAC 23.1(2)"ccc"

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

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

# **Emission Point ID Numbers: 122, 123**

# **Associated Equipment**

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
122	122	Crusher #1	CE 122: Bag Filter  CE 123: Bag Filter	Pet Coke, Ag By-Products, Biomass, Untreated Waste Lumber, Waste Paper Products, Tire Derived Fuel,	150 tons/hr	06-A-519-S2
	122a	Receiving Hopper #1			150 tons/hr	
	122b	Receiving Conveyor #1			150 tons/hr	
	122c	Receiving Bucket Conveyor #1			150 tons/hr	
123	123	Crusher #2			150 tons/hr	
	123a	Receiving Hopper #2			150 tons/hr	06 4 520 62
	123b	Receiving Conveyor #2			150 tons/hr	06-A-520-S2
	123c	Receiving Bucket Conveyor #2			150 tons/hr	

# **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): 20%

Authority for Requirement: DNR Construction Permits 06-A-519-S2, 06-A-520-S2

567 IAC 23.1(2)"v" 40 CFR 60 Subpart Y

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 1.29 lb/hr

Authority for Requirement: DNR Construction Permits 06-A-519-S2, 06-A-520-S2

Pollutant: Particulate Matter

Emission Limit(s): 1.29 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 06-A-519-S2, 06-A-520-S2

567 IAC 23.3(2)"a"

### New Source Performance Standards (NSPS) Applicability:

These emission units are subject to Subparts A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19) and Y (Standards of Performance for Coal Preparation Plants, 40 CFR §60.250 – 40 CFR §60.254) of the New Source Performance Standards (NSPS).

Authority for Requirement: DNR Construction Permits 06-A-519-S2, 06-A-520-S2

567 IAC 23.1(2)"v"

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 20

Stack Opening, (inches, dia.): 36 Exhaust Flow Rate (scfm): 30,000 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 06-A-519-S2, 06-A-520-S2

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

#### **Monitoring Requirements**

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

## **Opacity**

Visible emissions shall be observed on a weekly basis to ensure there are none when the emission units on each emission point are at or near full capacity. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from 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 🖂

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Numbers: 125 & 125B**

## **Associated Equipment**

<b>Emission Point</b>	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
125	125	Limestone Storage Silo #1	CE 125: Bag Filter	Limestone	150 tons/hr (mechanical transfer) 16.67 tons/hr (pneumatic transfer)	06-A-522-S2
125B	125B	Limestone Storage Silo #2	CE 125B: Bag Filter	Limestone	150 tons/hr (mechanical transfer) 16.67 tons/hr (pneumatic transfer)	07-A-1560-S1

# **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: DNR Construction Permits 06-A-522-S2 & 07-A-1560-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.17 lb/hr

Authority for Requirement: DNR Construction Permits 06-A-522-S2 & 07-A-1560-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.17 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 06-A-522-S2 & 07-A-1560-S1

567 IAC 23.3(2)"a"

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 90

Stack Opening, (inches): 10 x 8 Exhaust Flow Rate (scfm): 3,500 Exhaust Temperature (°F): 70 Discharge Style: Downward

Authority for Requirement: DNR Construction Permits 06-A-522-S2 & 07-A-1560-S1

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

#### **Monitoring Requirements**

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

#### **Opacity**

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible 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 visible emissions 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?  Required for 125 & 125B)	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 Numbers: 126, 126B, 126C, 126D**

## **Associated Equipment**

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
126	126	Ash Silo Conveying System	CE 126: Bag Filter	Coal Ash	50 tons/hr	06-A-523-S2
126B	126B	Ash Silo Conveying System	CE 126B: Bag Filter	Coal Ash	50 tons/hr	07-A-1561-S1
126C	126C	Ash Silo Conveying System	CE 126C: Bag Filter	Coal Ash	50 tons/hr	07-A-1562-S1
126D	126D	Ash Silo Conveying System	CE 126D: Bag Filter	Coal Ash	50 tons/hr	07-A-1563-S1

## **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: DNR Construction Permits 06-A-523-S2, 07-A-1561-S1,

07-A-1562-S1, 07-A-1563-S1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.15 lb/hr

Authority for Requirement: DNR Construction Permits 06-A-523-S2, 07-A-1561-S1,

07-A-1562-S1, 07-A-1563-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.15 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 06-A-523-S2, 07-A-1561-S1,

07-A-1562-S1, 07-A-1563-S1

567 IAC 23.3(2)"a"

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 13

Stack Opening, (inches, dia.): 10 Exhaust Flow Rate (scfm): 1,600 Exhaust Temperature (°F): 165 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permits 06-A-523-S2, 07-A-1561-S1,

07-A-1562-S1, 07-A-1563-S1

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

## **Monitoring Requirements**

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

## Opacity

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible 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 visible emissions 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?  Required for 126, 126B, 126C, & 126D)	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: 127**

## **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
127	Ash Silo Bin Vent	CE 127: Bag Filter	Coal Ash	50 tons/hr	06-A-524-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): No Visible Emissions

Authority for Requirement: DNR Construction Permit 06-A-524-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.14 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-524-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.14 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-524-S1

567 IAC 23.3(2)"a"

## **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 149

Stack Opening, (inches): 8 x 14 Exhaust Flow Rate (scfm): 1,700 Exhaust Temperature (°F): 70 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 06-A-524-S1

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

## **Monitoring Requirements**

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

## Opacity

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible 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 visible emissions 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(3)	
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: 129**

## **Associated Equipment**

Emission	Emission Unit Description	Control	Raw	Rated	Construction
Unit		Equipment	Material	Capacity	Permit
129	Belt Conveyor	CE 129: Bag Filter	Coal, Pet Coke, Ag By-Products, Biomass, Untreated Waste Lumber, Waste Paper Products, Tire Derived Fuel, Limestone	150 tons/hr	06-A-526-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): 20%

Authority for Requirement: DNR Construction Permit 06-A-526-S2

567 IAC 23.1(2)"v" 40 CFR 60 Subpart Y

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.52 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-526-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.52 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-526-S2

567 IAC 23.3(2)"a"

## New Source Performance Standards (NSPS) Applicability:

These emission units are subject to Subparts A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19) and Y (Standards of Performance for Coal Preparation Plants, 40 CFR §60.250 – 40 CFR §60.254) of the New Source Performance Standards (NSPS).

Authority for Requirement: DNR Construction Permit 06-A-526-S2

567 IAC 23.1(2)"v"

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 18 Exhaust Flow Rate (scfm): 3,100 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 06-526-S2

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

## **Monitoring Requirements**

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

## 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 (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from 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 🖂

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: 131, 132, 133

## Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
131	131	Bunker #1	131: Bag Filter	Coal, Pet Coke, Ag By-Products,	150 tons/hr	06-A-528-S2
132	132	Bunker #2	132: Bag Filter	Biomass, Untreated Waste Lumber, Waste	150 tons/hr	06-A-529-S2
133	133	Bunker #3	133: Bag Filter	Paper Products, Tire Derived Fuel, Limestone	150 tons/hr	06-A-530-S2

## **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): 20%

Authority for Requirement: DNR Construction Permits 06-A-528-S2, 06-A-529-S2, 06-A-530-S2

567 IAC 23.1(2)"v" 40 CFR 60 Subpart Y

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.03 lb/hr

Authority for Requirement: DNR Construction Permits 06-A-528-S2, 06-A-529-S2, 06-A-530-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.03 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 06-A-528-S2, 06-A-529-S2, 06-A-530-S2

567 IAC 23.3(2)"a"

## New Source Performance Standards (NSPS) Applicability:

These emission units are subject to Subparts A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19) and Y (Standards of Performance for Coal Preparation Plants, 40 CFR §60.250 – 40 CFR §60.254) of the New Source Performance Standards (NSPS).

Authority for Requirement: DNR Construction Permits 06-A-528-S2, 06-A-529-S2, 06-A-530-S2

567 IAC 23.1(2)"v"

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 145

Stack Opening, (inches, dia.): 4 Exhaust Flow Rate (scfm): 70 Exhaust Temperature (°F): 300 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permits 06-A-528-S2, 06-A-529-S2, 06-A-530-S2

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

## **Monitoring Requirements**

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

## 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 (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from 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 🖂

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 135** 

## **Associated Equipment**

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
135	Drag Feed Conveyor	135: Bag Filter	Coal, Pet Coke, Ag By-Products, Biomass, Untreated Waste Lumber, Waste Paper Products, Tire Derived Fuel, Limestone	150 tons/hr	06-A-532-S2
135B	Limestone Conveyor Receiving		Limestone	150 tons/hr	

## **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 06-A-532-S2

567 IAC 23.1(2)"v" 40 CFR 60 Subpart Y

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.17 lb/hr

Authority for Requirement: DNR Construction Permit 06-A-532-S2

Pollutant: Particulate Matter

Emission Limit(s): 0.17 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-532-S2

567 IAC 23.3(2)"a"

#### New Source Performance Standards (NSPS) Applicability:

These emission units are subject to Subparts A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19) and Y (Standards of Performance for Coal Preparation Plants, 40 CFR §60.250 – 40 CFR §60.254) of the New Source Performance Standards (NSPS).

Authority for Requirement: DNR Construction Permit 06-A-532-S2

567 IAC 23.1(2)"v"

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 170

Stack Opening, (inches.): 15 x 18 Exhaust Flow Rate (scfm): 2,000 Exhaust Temperature (°F): 70 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 06-A-532-S2

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

## **Monitoring Requirements**

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

## **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 (>20 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from 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 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: 200-1**

## Associated Equipment

Emission	Emission Unit	Raw Rated		Construction
Unit	Description	Material Capacity		Permit
CG-3	Dew Point Heater	Natural Gas	1.57 MMBtu/hr	02-A-694-P1

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 02-A-694-P1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 0.012 lb/hr, 0.052 tons/yr, 0.008 lb./MMBtu Authority for Requirement: DNR Construction Permit 02-A-694-P1

Pollutant: Particulate Matter

Emission Limit(s): 0.012 lb/hr, 0.052 tons/yr, 0.008 lb./MMBtu Authority for Requirement: DNR Construction Permit 02-A-694-P1

567 IAC 23.3(2)"a"

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

Authority for Requirement: DNR Construction Permit 02-A-694-P1

567 IAC 23.3(3)"e"

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

Emission Limit(s): 0.24 lb/hr, 1.1 tons/yr, 0.15 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-694-P1

## National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The Dew Point Heater is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters [567 IAC 23.1(4)"dd", 40 CFR Part 63, Subpart DDDDD].

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

## Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This heater shall be fired by natural gas only.
- 2. Record the amount of natural gas used in the heater on an annual basis.

Authority for Requirement: DNR Construction Permit 02-A-694-P1

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 40.75

Stack Opening, (inches, dia.): 13.5 Exhaust Flow Rate (acfm): 893 Exhaust Temperature (°F): 798

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-694-P1

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

#### **Monitoring Requirements**

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

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

## **Emission Point ID Number: 201-1**

## **Associated Equipment**

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
CG-4	Diesel Starting Engine	Diesel Fuel	38.4 gal/hr, 710 bhp	02-A-695-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.

# BACT Limits:

Pollutant: Opacity

Emission Limit(s): 5%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 02-A-695-P3

(1) Standard is expressed as a six (6) minute average and applies only during normal operation. A standard of 20% opacity applies during times of startup, shutdown, and malfunction (SSM).

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

Emission Limit(s): 0.11 tons/yr, 0.069 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-695-P3

Pollutant: Particulate Matter

Emission Limit(s): 0.011 tons/yr, 0.069 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-695-P3

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

Emission Limit(s): 0.49 tons/yr, 3.1 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-695-P3

#### Other Limits:

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.37 lb/hr

Authority for Requirement: DNR Construction Permit 02-A-695-P3

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-695-P3

567 IAC 23.3(3)"d"

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

Emission Limit(s): 16.5 lb/hr, 0.49 tons/yr, 3.1 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-695-P3

## Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This engine shall be operated no more than fifty-nine (59) hours per twelve (12) month rolling period. This engine shall be operated no more than fifty (50) hours per twelve (12) month rolling period until the exhaust stack has been raised to fifty (50) feet and made an unobstructed vertical discharge.
- 2. This engine shall be operated no more than three (3) hours per day. This engine shall be operated no more than one (1) hour per day until the exhaust stack has been raised to fifty (50) feet high and made an unobstructed vertical discharge.
- 3. This engine shall be fired on either #1 or #2 fuel oil.
- 4. The sulfur (S) content of any fuel used this engine shall not exceed 0.5% by weight.
- 5. This engine shall be operated according to the manufacturer's specifications in order to minimize emissions.
- 6. Record the number of hours the engine is operated. Calculate and record the monthly and the twelve (12) month rolling totals.
- 7. Record the times during the day that the engine is operated.
- 8. Record the sulfur (S) content of any fuel used in the engine, in weight percent.
- 9. Submit the notification required per 40 CFR §63.6645(b).

Authority for Requirement: DNR Construction Permit 02-A-695-P3

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

Stack Height, (ft., from the ground): 50

Stack Opening, (inches, dia.): 8 Exhaust Flow Rate (scfm): 4,880 Exhaust Temperature (°F): 830

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-695-P3

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

#### **Monitoring Requirements**

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

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: 201-2**

# Associated Equipment

Emission	Emission Unit Description	Control	Monitoring	Raw	Rated	Construction
Unit		Equipment	Equipment	Material	Capacity	Permit
CG-2	Combustion Turbine - Simple Cycle	DLN Burner	ME CG-2: NO <sub>x</sub>	Natural Gas	587 MMBtu/hr 41.5 MW	02-A-693-P1

# **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 02-A-693-P1

567 IAC 23.3(2)"d"

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

Emission Limit(s): 11.7 lb/hr, 4.8 tons/yr, 0.02 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-693-P1

Pollutant: Particulate Matter

Emission Limit(s): 11.7 lb/hr, 4.8 tons/yr, 0.02 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-693-P1

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

Emission Limit(s): 3.5 lb/hr, 1.53 tons/yr, 0.015% by volume<sup>(2)</sup> Authority for Requirement: DNR Construction Permit 02-A-693-P1

567 IAC 23.1(2)"aa" 40 CFR 60 Subpart GG

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

Emission Limit(s): 34.6 lb/hr, 14.4 tons/yr, 0.06 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-693-P1

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

Emission Limit(s): 0.0075% by volume<sup>(2)</sup>

Authority for Requirement: 40 CFR 60 Subpart GG

567 IAC 23.1(2)"aa"

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 33.3 lb/hr, 14.6 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-693-P1

(2) at 15% oxygen on a dry basis (NSPS GG)

## New Source Performance Standards (NSPS) Applicability:

This emission unit is subject to Subpart GG - Standards of Performance for Stationary Gas Turbines of the New Source Performance Standards (NSPS).

Authority for Requirement: DNR Construction Permit 02-A-693-P1

567 IAC 23.1(2)"aa", 40 CFR 60 Subpart GG

## National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability:

This emission unit is subject to Subpart YYYY - National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.

Authority for Requirement: DNR Construction Permit 02-A-693-P1

40 CFR 63 Subpart YYYY

#### Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This turbine shall be operated on simple cycle mode for a maximum of 876 hours per 12-month rolling period.
- 2. This turbine shall be fired by natural gas only.
- 3. The sulfur content of any fuel used in this turbine shall not exceed 0.8% by weight as required by NSPS subpart GG.
- 4. See NSPS section below.
- 5. Record the amount of natural gas used in this turbine on an annual basis.
- 6. Record the number of hours this turbine is operated in simple cycle mode. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 02-A-693-P1

567 IAC 23.1(2)"aa", 40 CFR 60 Subpart GG

## 40 CFR 60.334(h)<sup>(1)</sup>

- 1. Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (*i.e.*, if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in § 60.335(b)(9) or an approved alternative. (2)
- 2. Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in § 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
  - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
  - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.
- (1) The following language was taken from construction permit 02-A-693-P1 "The sulfur and nitrogen content of the fuel used in this unit shall be determined and recorded daily or on any other schedule approved by USEPA prior to the use of that schedule. (This requirement comes from 40 CFR 60.334"b"(2))." This requirement was based on the previous version of the 40 CFR 60 Subpart GG. This section states the current requirements from this subpart.

Authority for Requirement: 567 IAC 23.1(2)"aa", 40 CFR 60 Subpart GG

## **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 120

Stack Opening, (inches, dia.): 108 Exhaust Flow Rate (acfm): 787,308 Exhaust Temperature (°F): 1,015 Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-693-P1

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

<sup>(2)</sup> The facility does not claim an allowance for fuel bound nitrogen, so no monitoring is required.

## **Monitoring Requirements**

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

## **Continuous Emission Monitoring**

Compliance with the nitrogen oxide emission limit of this permit shall be continuously demonstrated by the owner/operator through the use of a CEMS. Therefore, a CEMS shall be installed, calibrated, maintained, and operated for measuring nitrogen oxides emissions in units of the standards discharged to the atmosphere from this unit and the output of the system shall be recorded. The system shall be designed to meet the 40 CFR 75, Appendix A, and Appendix C requirements. The specifications of 40 CFR 75 Appendix B (Quality Assurance/Quality Control) shall apply. 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.

Missing data for nitrogen oxides shall be treated according to 40 CFR 75 Appendix C (2).

Authority for Requirement: DNR Construction Permit 02-A-693-P1

## 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 🖂
Authority for Requirement: 567 IAC 22.108(3)	

# **Emission Point ID Numbers: 201-5, 201-6, 201-8**

## **Associated Equipment**

Emission	Emission	<b>Emission Unit</b>	Control	Raw	Rated	Construction	
Point	Unit	Description	Equipment	Material	Capacity	Permit	
201-5	201-5	Package Boiler	201-5:	Natural	96.66 MMBtu/hr	12-A-200-S2	
201-3	201-3	rackage Bollel	Low NO <sub>x</sub> Burner	Gas	90.00 IVIIVIDIU/III	12-A-200-32	
201-6	201-6	Doolson Doilor	201-6:	Natural	96.66 MMBtu/hr	12-A-201-S2	
201-0	201-0	Package Boiler	Low NO <sub>x</sub> Burner	Gas	90.00 MINIBUAL	12-A-201-S2	
201-8	201-8	Doolson Doilor	201-8:	Natural	96.66 MMBtu/hr	12-A-202-S2	
201-8	201-8	Package Boiler	Low NO <sub>x</sub> Burner	Gas	90.00 1/11/11/11/11/	12-A-202-32	

# **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permits 12-A-200-S2, 12-A-201-S2, 12-A-202-S2

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.50 lb/hr, 0.6 lb/MMBtu

Authority for Requirement: DNR Construction Permits 12-A-200-S2, 12-A-201-S2, 12-A-202-S2

567 IAC 23.3(2)"b"

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

Authority for Requirement: DNR Construction Permits 12-A-200-S2, 12-A-201-S2, 12-A-202-S2

567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 14.65 lb/hr

Authority for Requirement: DNR Construction Permits 12-A-200-S2, 12-A-201-S2, 12-A-202-S2

<sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions (No VE)" 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: Carbon Monoxide (CO) Emission Limit(s): 7.25 lb/hr.

Authority for Requirement: DNR Construction Permits 12-A-200-S2, 12-A-201-S2, 12-A-202-S2

## National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The Boilers are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters [567 IAC 23.1(4)"dd", 40 CFR Part 63, Subpart DDDDD].

## Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. Natural Gas Boilers (EU 201-5, 201-6, 201-7) shall only use natural gas as fuel.
- 2. The owner or operator shall comply with the applicable requirements in 40 CFR Part 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [§60.40c §60.48c].
- 3. The owner or operator shall comply with the reporting and recordkeeping requirements as outlined in 40 CFR §60.48c, including, but not limited to the following:
  - a. Per 40 CFR §60.48c(g)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each operating day; or
  - b. Per 40 CFR §60.48c(g)(2), record and maintain records of the amount of each fuel combusted during each calendar month; or
  - c. Per 40 CFR §60.48c(g)(3), record and maintain records of the total amount of each steam generating unit fuel delivered to the property during each calendar month.

Authority for Requirement: DNR Construction Permits 12-A-200-S2, 12-A-201-S2, 12-A-202-S2

567 IAC 23.1(2)"lll" 40 CFR 60 Subpart Dc

280

These emission points shall conform to the specifications listed below.

Emission Point	201-5	201-6	201-8	
Stack Height, (ft., from the ground)	34.33	34.33	34.33	
Stack Opening, (inches, dia.)	48 (dia.)	49.5 (dia.)	48	
Exhaust Flow Rate (scfm)	25,280	26,912	26,653	
Exhaust Temperature (°F)	510	510	510	
Discharge Style	Vertical Unobstructed	Vertical Unobstructed	Vertical Unobstructed	
Authority for Requirement	12-A-200-S2	12-A-201-S2	12-A-202-S2	

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

#### **Monitoring Requirements**

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

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

## **Emission Point ID Number: 202-1**

# **Associated Equipment**

Emissi	on Emission Unit	Control	Monitoring	Raw	Rated	Construction
Unit	Description	Equipment	Equipment	Material	Capacity	Permit
202-1	Combustion Turbine/Duct Burner, Combined Cycle	CG-1A: SCR CG-1B: Oxidation Catalyst	MECG-1: NO <sub>x</sub>	Natural Gas	166 MMBtu/hr 41.5 MW	02-A-692-P2

# **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 02-A-692-P2

567 IAC 23.3(2)"d"

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

Emission Limit(s): 15.0 lb/hr, 54.0 tons/yr, 0.02 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-692-P2

Pollutant: Particulate Matter

Emission Limit(s): 15.0 lb/hr, 54.0 tons/yr, 0.02 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-692-P2

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

Emission Limit(s): 4.52 lb/hr, 17.5 tons/yr, 0.015% by volume<sup>(2)</sup> Authority for Requirement: DNR Construction Permit 02-A-692-P2

567 IAC 23.1(2)"aa" 40 CFR 60 Subpart GG

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

Emission Limit(s): 9.12 lb/hr, 32.4 tons/yr, 0.013 lb/MMBtu

Authority for Requirement: DNR Construction Permit 02-A-692-P2

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

Emission Limit(s): 0.0075% by volume<sup>(2)</sup>

Authority for Requirement: 40 CFR 60 Subpart GG

567 IAC 23.1(2)"aa"

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 5.0 lb/hr, 21.9 tons/yr

Authority for Requirement: DNR Construction Permit 02-A-692-P2

(2) at 15% oxygen on a dry basis (NSPS GG)

## New Source Performance Standards (NSPS) Applicability:

The following subparts apply to the emission unit(s) in this permit:

Emission Unit ID	Subpart	Title	Туре	State Reference (567 IAC)	Federal Reference (40 CFR)
	A	General Provisions	NA	23.1(2)	§60.1 – §60.19
CG-1	Db	Industrial-Commercial- Institutional Steam Generating Units	Duct Burner	23.1(2)"ccc" <sup>(1)</sup>	§60.40b – §60.49b
	GG	Stationary Gas Turbines	Combined Cycle	23.1(2)"aa"	§60.330 – §60.335

<sup>(1)</sup> As amended through January 20, 2011

# National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

The following subparts apply to this gas turbine:

Emission Unit ID	Subpart	Title	Туре	State Reference (567 IAC)	Federal Reference (40 CFR)
	A	General Provisions	NA	23.1(4)	§63.1 – §63.15
CG-1	YYYY	Stationary Combustion Turbines	Existing	23.1(4)"cy"	§63.6080 – §63.6175

## Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. This turbine shall be fired by natural gas only.
- 2. Record the amount of natural gas used in this turbine on an annual basis.
- 3. The sulfur content of any fuel used in this turbine shall not exceed 0.8% by weight as required by NSPS subpart GG.
- 4. The sulfur and nitrogen content of the fuel used in this unit shall be determined and recorded daily or on any other schedule approved by USEPA prior to the use of that schedule. (This requirement comes from 40 CFR 60.334"b"(2)).
- 5. The emissions from this turbine shall be controlled by the SCR and oxidative catalyst whenever this turbine is operated in combined cycle mode.

Authority for Requirement: DNR Construction Permit 02-A-692-P2

## 40 CFR 60.334(h)<sup>(1)</sup>

- 1. Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (*i.e.*, if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in § 60.335(b)(9) or an approved alternative. (2)
- 2. Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in § 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
  - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
  - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

(1) The following language was taken from construction permit 02-A-692-P2 "The sulfur and nitrogen content of the fuel used in this unit shall be determined and recorded daily or on any other schedule approved by USEPA prior to the use of that schedule. (This requirement comes from 40 CFR 60.334"b"(2))." This requirement was based on the previous version of the 40 CFR 60 Subpart GG. This section states the current requirements from this subpart.

(2) The facility does not claim an allowance for fuel bound nitrogen, so no monitoring is required.

Authority for Requirement: 567 IAC 23.1(2)"aa"

40 CFR 60 Subpart GG

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

Stack Height, (ft., from the ground): 170

Stack Opening, (inches, dia.): 144 Exhaust Flow Rate (scfm): 253,190 Exhaust Temperature (°F): 275

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 02-A-692-P2

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

#### **Monitoring Requirements**

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

#### **Continuous Emission Monitoring**

Compliance with the nitrogen oxide emission limit of this permit shall be continuously demonstrated by the owner/operator through the use of a CEMS. Therefore, a CEMS shall be installed, calibrated, maintained, and operated for measuring nitrogen oxides emissions in units of the standards discharged to the atmosphere from this unit and the output of the system shall be recorded. The system shall be designed to meet the 40 CFR 75, Appendix A, and Appendix C requirements. The specifications of 40 CFR 75 Appendix B (Quality Assurance/Quality Control) shall apply. 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.

Missing data for nitrogen oxides shall be treated according to 40 CFR 75 Appendix C (2).

Authority for Requirement: DNR Construction Permit 02-A-693-P1

## 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? (Required for CO)	Yes 🛛 No 🗌

# Compliance Assurance Monitoring Plan CAM Plan for CG-1B Oxidation Catalyst

## I. Background

#### A. Emissions Units

Description: Combustion Turbine with Duct Burner – Combined Cycle

Identification: CG-1

Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.:

DNR Construction Permit 02-A-692-P2

Carbon Monoxide emission limit: 5.0 lb/hr, 21.9 tpy

Current Monitoring requirements: Recordkeeping of fuel usage

C. Control Technology Oxidation Catalyst

## II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1. The selected performance indicator is control device operating temperature.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

**Table 1. Monitoring Approach** 

General Criteria	
I. Indicator	Catalyst inlet gas stream temperature. (Current DCS Indicator TTHB85)
Measurement Approach	Inlet gas temperature is measured by securing inlet probe prior to the air stream entering the catalytic bed. Analytical devices required are thermocouples as appropriate for specific gas stream.

II. Indicator Range	Catalyst inlet gas temperature will be checked daily when operating to ensure that the temperature is in the range of 500°F to 1050°F during operation of the unit, except during periods of startup, shutdown, or cleaning of control equipment.
QIP Threshold	The QIP threshold is six excursions in a six-month period.
III. Performance Criteria	
A. Data Representativeness	The oxidizer is designed to operate at maximum control efficiency above a specific inlet gas temperature. If the temperature drifts below the optimal efficiency range, this is an indication of the potential for increased CO emissions
B. Verification of Operational Status	Collected temperature readings will be maintained on site and available for inspection for a period of five years.
C. QA/QC Practices and Criteria	Recording devices will be calibrated and maintained using procedures that take into account manufacturer's specifications. Oxidizer will be maintained as outlined in the facility's operation and maintenance plan.
D. Monitoring Frequency	Recorded continuously on strip chart or data acquisition system. Monitored daily for temperatures below indicator range.
	If temperature falls below indicator range specified above, corrective action shall be taken as soon as possible, but no later than eight hours from observation.
E. Data Collection Procedures	Electronic or hard copy of daily temperature readings will be available upon request.
	Corrective actions resulting from excursions will be recorded.
IV. Justification	Temperature was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal CO control performance.

# WMD Equipment List

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
11-1/3/12	WMD-09	WMD Exhaust Vents	NA
11-13	WMD-05	Reclaim Starch	98-A-374

**Emission Point ID Number: 11-1/3/12** 

## Associated Equipment

Emission	Emission Unit Description	Raw	Rated	Construction
Unit		Material	Capacity	Permit
WMD-09	WMD Exhaust Vents	Starch	8 tons/hr	NA

## **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 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 23.4(7)

## **Monitoring Requirements**

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

 Agency Approved Operation & Maintenance Plan Required?
 Yes □ No ⋈

 Facility Maintained Operation & Maintenance Plan Required?
 Yes □ No ⋈

 Compliance Assurance Monitoring (CAM) Plan Required?
 Yes □ No ⋈

Authority for Requirement: 567 IAC 22.108(3)

## **Emission Point ID Number: 11-13**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
WMD-05	Reclaim Starch	WMD-05: Baghouse	Starch Dust	3 tons/hr	98-A-374

## **Applicable Requirements**

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

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

Pollutant: Opacity

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

Authority for Requirement: DNR Construction Permit 98-A-374

567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.66 lb/hr

Authority for Requirement: DNR Construction Permit 98-A-374

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

Authority for Requirement: DNR Construction Permit 98-A-374

567 IAC 23.4(7)

#### **Emission Point Characteristics**

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

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

Stack Opening, (feet, dia.): 2.17 Exhaust Flow Rate (scfm): 7,700 Exhaust Temperature (°F): 170

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 98-A-374

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

TA //	• , •	D	•	
VION	itaring	3 KeC	quirem	ents
111011		1100	un cin	CIIUS

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

# Wastewater Equipment List

Emission Point ID	Emission Unit ID	Emission Unit Description	DNR Construction Permit ID
71-2	WW-01	Lime Storage Silo #1	89-A-053-S1
71-8	WW-04	#1 Aeration	NA
71-9	WW-05	#2 Aeration	NA
71-10	WW-07	Lime Storage Silo #2	09-A-282
71-11	WW-06	#3 Surge & Equalization	NA

## **Emission Point ID Number: 71-2**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
WW-01	Lime Storage Silo #1	WW-01: Baghouse	Lime	24 tons/hr	89-A-053-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%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 89-A-053-S1

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.53 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 89-A-053-S1

567 IAC 23.3(2)"a"

## Operating Requirements with Associated Monitoring and Recordkeeping

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

- 1. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.
- 2. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 89-A-053-S1

<sup>(1)</sup> An exceedence 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 exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

## **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 1.5

Stack Opening, (inches, dia.): 11 Exhaust Flow Rate (scfm): NA Exhaust Temperature (°F): 70 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 89-A-053-S1

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

#### **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# Compliance Assurance Monitoring Plan CAM Plan for EP 71-2; Baghouse (WW-1)

## I. Background

A. Emissions Units

Description: Lime Silo Identification: WW-1

Facility: Roquette America, Inc.

1417 Exchange Street Keokuk, IA 52632

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: 89-A-053-S1, 567 IAC 23.3(2)d and 567 IAC 23.2(a)

Particulate emission limit: PM: 0.53 lb/hr

Opacity emission limit: 40% Current Monitoring requirements: None

C. Control Technology: Baghouse

## II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1.

Note: An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.

**Table 1. Monitoring Approach** 

General Criteria	
I. Indicator	Visible emissions
Measurement Approach	Visible emissions from the control device exhaust while the emission unit is operating.
II. Indicator Range	No visible emissions shall be observed, except during startup, shutdown, or cleaning of the control equipment. Visible emissions require corrective action and recordkeeping
QIP Threshold	The QIP threshold is six excursions in a six month period.

III. Performance Criteria	
A. Data Representativeness	Visible emissions are a key indicator that a baghouse is operating properly. Visible emissions occur when material can be seen exiting a baghouse's waste stream.
B. Verification of Operational Status	Records of visible emission checks will be maintained for five years.
C. QA/QC Practices and Criteria	The observer will be trained to detect visible emissions, but will not necessarily be Method 9 certified. Baghouse will be maintained as outlined in the facility's operation and maintenance plan.
D. Monitoring Frequency	Visible emission readings shall be conducted daily during a period when the emission unit on this emission point is in operation.
	If visible emissions are detected, corrective action shall be taken as soon as possible, but no later than eight hours from observation. If corrective action does not return observation to no visible emissions, then a Method 9 observation will be required.
	If weather conditions prevent the observer from conducting a visible emission observation, the observer shall note such conditions on observation sheet. At least three attempts shall be made to retake readings at approximately two hour intervals throughout the day. If weather prohibits all three attempts, an observation shall be made on the next operating day that weather permits.
E. Data Collection Procedures	Electronic or hard copy of daily visible emission readings will be available upon request.
	Corrective actions resulting from excursions will be recorded.
IV. Justification	Visible emission detection was selected as the performance indicator because it demonstrates the proper operating conditions of this control device and therefore the optimal PM control performance.

**Emission Point ID Numbers: 71-8, 71-9, 71-11** 

**Associated Equipment** 

Emission	Emission	<b>Emission Unit</b>	Raw	Rated	Construction
Point	Unit	Description	Material	Capacity	Permit
71-8	WW-04	#1 Aeration	Wastewater	175 mgal/hr	NA
71-9	WW-05	#2 Aeration	Wastewater	175 mgal/hr	NA
71-11	WW-06	#3 Surge & Equalization	Wastewater	175 mgal/hr	NA

## **Applicable Requirements**

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

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

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

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: 71-10**

## **Associated Equipment**

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
WW-07	Lime Storage Silo #2	CE WW-7: Baghouse	Lime	0.67 tons/hr	09-A-282

## **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: DNR Construction Permit 09-A-282

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM<sub>10</sub>) Emission Limit(s): 0.30 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-282

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

Authority for Requirement: DNR Construction Permit 09-A-282

567 IAC 23.3(2)"a"

## **Emission Point Characteristics**

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

Stack Height, (ft., from the ground): 66

Stack Opening, (dia.): 18 x 6 Exhaust Flow Rate (scfm): 3,300 Exhaust Temperature (°F): 70 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 09-A-282

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

## **Monitoring Requirements**

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

## Opacity

Visible emissions shall be observed on a weekly basis to ensure none occur when the emission unit on this emission point is at or near full capacity. If visible 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 visible emissions 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.

J 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🛛 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ☐ No ⊠

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

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

## **G1.** Duty to Comply

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

## **G2.** Permit Expiration

- 1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). 567 IAC 22.116(2)
- 2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air 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

1. 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

1. 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**

1. 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

- 1. 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:
  - a. 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;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - d. 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

1. 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

- 1. The owner or operator of any air emission source or control equipment shall:
  - a. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
  - b. Remedy any cause of excess emissions in an expeditious manner.
  - c. 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.
  - d. 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.

- 1. 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.
  - a. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
    - i. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
    - ii. Compliance test methods specified in 567 Chapter 25; or
    - iii. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
  - b. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
    - i. Any monitoring or testing methods provided in these rules; or
    - ii. 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

1. 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

1. The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). 567 IAC Chapter 131-State Only

## G14. Excess Emissions and Excess Emissions Reporting Requirements

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

incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

- a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:
  - i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
  - ii. The estimated quantity of the excess emission.
  - iii. The time and expected duration of the excess emission.
  - iv. The cause of the excess emission.
  - v. The steps being taken to remedy the excess emission.
  - vi. The steps being taken to limit the excess emission in the interim period.
- b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:
  - i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
  - ii. The estimated quantity of the excess emission.
  - iii. The time and duration of the excess emission.
  - iv. The cause of the excess emission.
  - v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
  - vi. The steps that were taken to limit the excess emission.

- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)
- 3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The facility at the time was being properly operated;
  - c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
  - d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 4. 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**

1. 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

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

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

- 1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 22.144(455B));.
  - e. The changes comply with all applicable requirements.
  - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
    - i. A brief description of the change within the permitted facility,
    - ii. The date on which the change will occur,
    - iii. Any change in emission as a result of that change,
    - iv. The pollutants emitted subject to the emissions trade
    - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
    - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
    - vii. Any permit term or condition no longer applicable as a result of the change. 567 IAC 22.110(1)
- 2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. 567 IAC 22.110(2)
- 3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). 567 IAC 22.110(3)
- 4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. 567 IAC 22.110(4)
- 5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. 567 IAC 22.108(11)

## G18. Duty to Modify a Title V Permit

- 1. Administrative Amendment.
  - a. An administrative permit amendment is a permit revision that does any of the following:
    - i. Correct typographical errors
    - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
    - iii. Require more frequent monitoring or reporting by the permittee; or
    - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
  - b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
  - c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.
- 2. Minor Title V Permit Modification.
  - a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
    - i. Do not violate any applicable requirement;
    - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
    - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
    - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
    - v. Are not modifications under any provision of Title I of the Act; and
    - vi. Are not required to be processed as significant modification under rule 567 22.113(455B).
  - b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
    - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
    - ii. The permittee's suggested draft permit;
    - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
    - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

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

## 3. Significant Title V Permit Modification.

- a. 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.
- b. 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**

1. 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

1. 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

1. 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

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

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

- 1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
- 3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed

- refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
- 5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. 40 CFR part 82

## **G24. Permit Reopenings**

- 1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. 567 IAC 22.108(9)"c"
- 2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
  - a. Reopening and revision on this ground is <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

1. 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

1. The permit does not convey any property rights of any sort, or any exclusive privilege. 567 IAC 22.108 (9)"d"

## **G28.** Transferability

1. 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

1. 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

- 1. 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.
- 2. Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator Iowa DNR, Air Quality Bureau Wallace State Office Building 502 E 9<sup>th</sup> St.
Des Moines, IA 50319-0034 (515) 725-9545

3. 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

1. 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

1. 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

2. 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

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

#### Field Office 1

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

#### Field Office 3

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

#### Field Office 5

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

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

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

#### Field Office 2

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

#### Field Office 4

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

#### Field Office 6

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

## **Linn County Public Health**

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

314

## V. Appendix

NSPS Subpart DD - Standards of Performance for Grain Elevators <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-DD">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-DD</a>

NSPS Subpart GG - Standards of Performance for Stationary Gas Turbines <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-GG">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-GG</a>

NSPS Subpart Y - Standards of Performance for Coal Preparation and Processing Plants <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Y">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Y</a>

NSPS 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

NSPS Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Dc

NESHAP Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ

NESHAP Subpart YYYY - National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-YYYY