Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Grain Processing Corporation
Facility Location: 1600 Oregon Street
Muscatine, Iowa 52761
Air Quality Operating Permit Number: 03-TV-029R1
Expiration Date: March 12, 2022
Permit Renewal Application Deadline: September 12, 2021

EIQ Number: 92-2259
Facility File Number: 70-01-004

<u>Responsible Official</u>
Name: Mr. Ron Zitzow
Title: Senior Vice President
Mailing Address: 1600 Oregon St.
Muscatine, IA 52761
Phone No. : (563) 264-4700

<u>Permit Contact Person for the Facility</u>
Name: Mick Durham
Title: Environmental Manager
Mailing Address: 1600 Oregon St.
Muscatine, IA 52761
Phone #: (563) 264-4569

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

For the Director of the Department of Natural Resources

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Lori Hanson, Supervisor of Air Operating Permits Section Date

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Abbreviations

acfm.....actual cubic ft, from the ground per minute
CFR.....Code of Federal Regulation
CE .....control equipment
CEM.....continuous emission monitor
DNR……Iowa Department of Natural Resources
^{o}F .....degrees Fahrenheit
EIQ.....emissions inventory questionnaire
EP.....emission point
EU .....emission unit
gal/hr…….. gallons per hour
gr./dscf .....grains per dry standard cubic foot
IAC.....Iowa Administrative Code
IDNR.....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS.....new source performance standard
ppmv .....parts per million by volume
lb./hr.....pounds per hour
lb./MMBtu .....pounds per million British thermal units
SCC.....Source Classification Codes
scfm.....standard cubic ft per minute
SIC……Standard Industrial Classification
TPH……tons per hour
TPY.....tons per year
USEPA.....United States Environmental Protection Agency

Pollutants
PM.....particulate matter
PM_{10}.....particulate matter ten microns or less in diameter
$PM_{2.5}$.....particulate matter 2.5 microns or less in diameter
SO_2.....sulfur dioxide
NO_x .....nitrogen oxides
VOC……...volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Grain Processing Corporation
Permit Number: 03-TV-029R1

Facility Description: Wet Corn Milling (SIC 2046)

Equipment List

Truck, Rail Unloading, Corn Storage, Corn Cleaning

490.0	6001.1 – 6001.9	North Grain Unloading	02-A-687-S2
	6002.1 – 6002.9		
	6007.1 – 6007.4		
181.2	6006.0	Corn (Grain) Unloading to Storage	76-A-268
147.0	2808.0	Wet Mill: No. 1-Corn Cleaner	85-A-043-S1
	2808.1	Wet Mill: No. 2-Corn Cleaner	
	2808.2	Wet Mill: No. 3-Corn Cleaner	
	2808.3	Wet Mill: No. 4-Corn Cleaner	

Corn Steeping, Separation

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
200N	2810.0 - 2839.0, 2898.1	Corn Wet Mill Steep Tanks Nos. 1-24	15-A-200
		Corn Wet Mill Steep Tanks Nos. 25-30	
		North Corn Wet Drag	
200S	2840.0 - 2871.0, 2898.2	Corn Wet Mill Steep Tanks Nos. 31-42 and 51-58	15-A-201
		Corn Wet Mill Steep Tanks Nos. 43-50 and 59-62	
		South Corn Wet Drag	
264.0	2896.0	Corn Wet Mill Steep Water Tank	15-A-202
282.0	2898.3	Wet Corn Drag Vent	N/A
278.0	2433.0	Starch Building	15-A-208
279.0	2895.1 – 2895.6	Wet Mill Bins Nos. 1 – 6	15-A-209

Germ Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
14.0	2801.0	#1 Wet Germ Cyclone	15-A-078
96.0	2803.0	#2 Wet Germ Cyclone	74-A-014-S1
15.0	2802.0	#1 North Top Rotary Germ Dryer	79-A-194-S2
	2802.1	#2 North Top Rotary Germ Dryer	
97.0	2804.0	#3 South Top Rotary Germ Dryer	74-A-015-S2
126.0	2807.0	#4 South Bottom Rotary Germ Dryer	79-A-195-S2
178.0	2874.0	No. 5 Germ Dryer	91-A-176
194.0	2894.0	# 3 Wet Germ Pneumatic Transfer System	02-A-783-S1
98.0	2805.0	Whole Germ Receiving Expeller	74-A-016-S2
545.0	2876.0	No. 1 Expeller	06-A-1261-S1
	2877.0	No. 2 Expeller	
	2878.0	No. 3 Expeller	
	2879.0	No. 4 Expeller	
	2880.0	No. 5 Expeller	
	2881.0	No. 6 Expeller	
	2888.0	No. 13 Expeller	
	2890.0	No. 15 Expeller	
	2882.0	No. 7 Expeller	
	2883.0	No. 8 Expeller	
	2884.0	No. 9 Expeller	
	2885.0	No. 10 Expeller	
	2886.0	No. 11 Expeller	
	2887.0	No. 12 Expeller	
	2889.0	No. 14 Expeller	
	2892.0	No. 16 Expeller	
	2893.0	No. 17 Expeller	

Gluten Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
38.0	1213	Gluten Day Bin	71-A-067-S4
268.0	1250.0	GP1: Gluten Filter No. 1	15-A-203
269.0	1251.0	GP1: Gluten Filter No. 2	15-A-204
270.0	1252.0	GP1: Gluten Filter No. 3	15-A-205
271.0	1253.0	GP1: Gluten Filter No. 4	15-A-206
272.0	1254.0	GP1: Gluten Filter No. 5	15-A-207
283.0	1255.6	GP1: Gluten Filter No. 6	15-A-480
284.0	1255.7	GP1: Gluten Filter No. 7	15-A-481
285.0	1255.8	GP1: Gluten Filter No. 8	15-A-482
286.0	1255.9	GP1: Gluten Filter No. 9	15-A-483

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
43.1	1217.0	# 1 Gluten Flash Dryer	75-A-087-S2
	1217.1	# 1 Gluten Flash Dryer Direct Fired Burner	
	1217.2	# 2 Gluten Flash Dryer	
	1217.3	# 2 Gluten Flash Dryer Direct Fired Burner	
312.0	1281.1, 1281.4	GP2: Gluten Filter No. 1, Gluten Filter No. 4	15-A-484
313.0	1281.2, 1281.3	GP2: Gluten Filter No. 2, Gluten Filter No. 3	15-A-485
314.0	1281.5, 1281.6, 1281.7	GP2: Gluten Filter No. 5, Gluten Filter No. 6, Gluten Filter No. 7	15-A-486
173.0	1244.0	# 4 Gluten Flash Dryer	91-A-067-S2
	1244.1	Gas-Fired Heater	
174.0	1245.0	GP2 - # 4 Gluten Pre-Mill Cooling System	91-A-068-S2
	1246.0	Gluten Mill	
531.0	1260.0	Gluten Plant 1 Pneumatic Transport System	03-A-471-S2

Starch Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
143.0	2431.0	No. 1 Starch Flash Dryer	85-A-039-S1
158.0	2424.0	No. 2 Starch Flash Dryer	90-A-258-S1
149.0	2419.0	Starch Silo No. 1 (N)	85-A-081-S1
150.0	2420.0	Starch Silo No. 2 (E)	85-A-082-S1
151.0	2421.0	Starch Silo No. 3 (S)	85-A-083-S1
152.0	2422.0	Starch Silo No. 4 (W)	85-A-084-S1
159.0	2425.0	Starch Silo No. 5 (N)	90-A-259-S1
160.0	2426.0	Starch Silo No. 6 (E)	90-A-260-S1
161.0	2427.0	Starch Silo No. 7 (S)	90-A-261-S1
162.0	2428.0	Starch Silo No. 8 (W)	90-A-262-S1
171.0	2429.0	Starch Silo No. 9 (NE)	90-A-359-S1
172.0	2430.0	Starch Silo No. 10 (NW)	90-A-360-S1
155.0	2423.0	Starch Sacker	85-A-085
144.0	2436.0	Starch Warehouse Food-Grade Bagger-Bagging & Super Sacking	90-A-307-S2
122.0	2435.0	Pearl Starch Storage Bin	76-A-262-S1
130.0	2434.0	Industrial Starch Bagger	02-A-760-S1
471.0	2437.0	Industrial Modified Starch Bin & Transfer System	03-A-079
95.0	2416.0	Starch South Bulk Loading: Railcar	75-A-246-S2
60.0	2415.0	Starch Quonset Bulk Loadout - Track ¾ N: Loading Conveyor and Railcar Loading	02-A-952-S1
163.0	2432.0	Starch Track 3A Bulk Loading	90-A-263-S1

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
537.0	2440.0	Pneumatic Transfer System Airlock Vent	03-A-1370
188.0	2501.0	Ingredient Bin #1 and #2; Super Sack Bag Dump Stations #1 and #2	96-A-1028-S2
	2502.0	Ingredient Bin #3 and #4; Super Sack Bag Dump Stations #1 and #2	
	2503.0	Food Product Bin #1; Product Bin #2	
	2504.0	Product Bin #2; Industrial Product Bin #3	
	2505.0	Steam Heated Indirect Dryer and Cooler, and various pickup points-Product Bin Area, Ingredient Bin Area, Super Sack Dump and Ingredient Blender Area, Grinder and Screener Areas	
	2506.0	Ingredient Blender, Screener #1, Extruder, Grinder Feed Bin, Grinder, and various pick up points-Packaging & Bulk Loadout Areas-Railcar and Truck	

Alcohol Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
472.0	1068.0	Alcohol Prefermenters	03-A-342-S2
501.0-504.0	1082.0-1085.0	Nos. 1-4 Beer Column Vents	N/A
505.0-508.0	1082.0-1085.0	Nos. 1-4 Beer Column Degasifier Vents	N/A
509.0	1083.0	No. 2 Beer Column Reflux Vent	N/A
510.0	1086.0	No. 1 Alcohol Column Reflux Tank Vent	N/A
511.0	1086.0	No. 1 Alcohol Column Reflux Vent	N/A
512.0-515.0	1086.0-1089.0	Nos. 1-4 Alcohol Column Vents	N/A
517.0-518.0	1091.0-1092.0	Nos. 3-4 Extractive Distillation Column Vents	N/A
519.0	1093.0	Stripper Column Vent	N/A
480.0-482.0	1072.0-1074.0	Beer Well Tanks Nos. 1 through 3	N/A
475.0	1066.0	Demethylization Feed Tank	02-A-792
484.0	1076.0	Demethylization System Vent Condenser No. 1	02-A-793
486.0	1078.0	Anhydrous Product Vent Condenser No. 2	02-A-795
487.0	1079.0	Anhydrous Vacuum Receiver Tank No. 2	02-A-796
544.0	6301.0-6329.0	Mash Fermenters 1-29	05-A-926-S4 05-A-926-S5
408.0	1012.0	Mole Sieve #1 Feed Tank	07-A-1168
309.0	1065.0	Fuel Ethanol Production – Fugitive Acetaldehyde Emissions (Equipment Leaks of VOC)	N/A

Alcohol Storage

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
400.0	1005.0	Storage of Anhydrous Alcohol; Ethanol Tank 1	N/A
401.0	1006.0	Storage of Anhydrous Alcohol; Ethanol Tank 2	N/A
402.0	1007.0	Storage of Anhydrous Alcohol; Ethanol Tank 3	N/A
403.0	1008.0	Storage of Anhydrous Alcohol; Ethanol Tank 4	N/A
404.0	1009.0	Storage of Anhydrous Alcohol; Ethanol Tank 5	N/A
405.0	1010.0	Storage of Anhydrous Alcohol; Ethanol Tank 6	N/A
406.0	1011.0	Storage of Reject Anhydrous Alcohol, Ethanol – Dump Tank	N/A
409.0	1014.0	Storage of Anhydrous Alcohol; Ethanol – "A" Scale Tank	N/A
410.0	1015.0	Storage of Anhydrous Alcohol; Ethanol – "B" Scale Tank	N/A
411.0	1016.0	Storage of Anhydrous Alcohol; Ethanol – "C" Scale Tank	N/A
413.0	1018.0	Storage of Toluene	N/A
445.0	1050.0	Storage of Anhydrous Alcohol; Ethanol Tank 3H	N/A
446.0	1051.0	Storage of Anhydrous Alcohol; Ethanol Tank 4H	N/A
447.0	1052.0	Storage of Anhydrous Alcohol; Ethanol Tank 5H	N/A
448.0	1053.0	Storage of Anhydrous Alcohol; Ethanol Tank 6H	N/A
449.0	1054.0	Storage of Anhydrous Alcohol; Ethanol Tank 7H	N/A
450.0	1055.0	Storage of Anhydrous Alcohol; Ethanol Tank 8H	N/A
451.0	1056.0	Storage of Ethanol Tank 1C	N/A
452.0	1057.0	Storage of Ethanol Tank 2C	N/A
453.0	1058.0	Storage of Ethanol Tank 3C	N/A
459.0	1064.0	Storage of Ethanol – 160 Proof Tank	N/A
407.0	1013.0	RD2 Feed Tank	07-A-432
549.0	1067.0	Ethanol Storage – AA Tank #7	12-A-255
	1080.0	Ethanol Storage – AA Tank RJ2	
550.0	1059.0	Ethanol Storage Tank 4C	14-A-604
	1060.0	Ethanol Storage Tank 5C	
491.0	1098.0	190 Day Lot Tank #1190 Day Lot Tank #1	07-A-433
	1099.0	190 Day Lot Tank #2	
	1100.0	190 Day Lot Tank #3	
	1101.0	190 Day Lot Tank #4	
492.0	1102.0	Low Proof Feed Tank	07-A-434
493.0	1103.0	High Proof Feed Tank	07-A-435
494.0	1104.0	High Wines Tank	07-A-436
495.0	1105.0	Low Proof Surge Tank #1	07-A-437
	1106.0	Low Proof Surge Tank #2	
	1107.0	High Proof Surge Tank	
532.0	1048.0 & 1049.0	“B” Tank Farm Fuel Ethanol Storage Tanks 1H & 2H	03-A-343-S4

Alcohol Loadout

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
302.0	1002.0	Alcohol Loading: Methanol Tank	N/A
456.0	1061.0	Storage of Ethanol – Isopropyl Tank	N/A
457.0	1062.0	Storage of Ethanol – TBA Bulk Tank	N/A
458.0	1063.0	Storage of Ethanol – Denatured Tank #13	N/A
476.0	1069.0	Ethanol Denaturant Storage Tank – Tank #1	N/A
477.0	1070.0	Ethanol Denaturant Storage Tank – Tank #2	N/A
478.0	1071.0	Ethanol Denaturant Storage Tank – Unleaded Gasoline	N/A
539.0	1097.0	Denaturant for Fuel Ethanol - #2 Unleaded Gasoline	N/A
483.0	1075.0	Alcohol Tank Truck Load Out	N/A
520.0-526.0	1094.1-1094.7	Alcohol Track 4A Rail Loadout Spouts Nos. 1-7	N/A
533.0-535.0	1094.8-1094.10	Alcohol Track 4B Loadout Spouts Nos. 8-10	N/A
527.0	1095.1	Alcohol Beverage Truck Loadout Spout (East)	N/A
528.0	1095.2	Alcohol Anhydrous 200 Truck Loadout Spout	N/A
529.0	1095.3	Alcohol 190 Proof (Heads) Truck Loadout Spout	N/A
301.0	1116.0	Alcohol Barge Loading	15-A-498

Maltodextrin Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
182.0	3115.0	Maltrin® Filter Aid Bulk Storage Bin No. 1	93-A-032
183.0	3112.0	Maltrin® Filter Aid Bulk Storage Bin No. 2	93-A-033
184.0	3113.0	Maltrin® Filter Aid Bulk Storage Bin No. 3	93-A-034
185.0	3114.0	Maltrin® Bulk Carbon Storage Bin No. 1	93-A-035
66.0	3101.0	Maltrin # 1 Spray Dryer	72-A-199-S2
	3101.1	Maltrin # 1 Spray Dryer Direct-Fired Burner	
538.0	3120.0	Maltrin No. 1 Spray Dryer System Cooler	03-A-1371-S1
132.1	3111.0	Maltrin # 3 Spray Dryer	80-A-149-S6
132.2	3111.1	Maltrin # 3 Spray Dryer Direct-Fired Burner	80-A-150-S6
135.0	3110.0	Maltrin # 4 Spray Dryer	85-A-031-S4
136.0	3110.1	Maltrin # 4 Spray Dryer Direct-Fired Burner	85-A-032-S4
310.0	3107.0	Maltrin No. 5 Spray Dryer	90-A-309-S2
	3107.1	Maltrin No. 5 Spray Dryer Direct-Fired Burner	
186.0	3116.0	Maltrin # 6 Spray Dryer	94-A-055-S2
187.0	3116.1	Maltrin # 6 Spray Dryer Direct-Fired Burner	94-A-061-S2
MALT14	3117.1 – 3117.4	Maltrin Storage Bins 1-4	16-A-032
MALT58	3117.5 – 3117.8	Maltrin Storage Bins 5 – 8	16-A-033

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
175.0	3108.0	Maltrin® Product Silo Receiver	91-A-069-S2
157.0	3107A	Maltodextrin Bagger	89-A-162
176.0	3109.0	Maltrin® Nuisance Dust Collector	91-A-070

Fiber Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
195.0	1262.0	Dryer House 4-Spent Germ Receiving	09-A-482-S2
546.0	1264.0	#1 Alpha Laval Centrifuge in Dryer House 4	11-A-338-S1
551.0	1264.8	Dewatering of Feed, West Thin Stillage Tank and West C-400 Thrus Tank	15-A-354-S1
	1264.9		
	1265.5		
	1265.6		
	1265.7		
	1265.8		
196.0	1263.0	DH4 and DH5 Rotary Dryers Product Receiver Cyclone	10-A-563-S1
311.0	1236.0	Dryer House 4, Rotary Dryer # 5	15-A-213
	1238.0	Dryer House 4, Rotary Dryer # 6	
	1241.0	Dryer House 4, Rotary Dryer # 7	
601.0	1267.0	Spent Germ Pneumatic Transport	11-A-340
603.0	1269.0	Mill Feed Receiving	11-A-342
605.0	1278.0	DH5 Dewatering Building	14-A-552
	1279.0		
	1280.0		
	1281.0		
600.0	1266.0	Dryer House 5 (DH5) Swiss Combi Dryer	11-A-339
199.0	1273.1	DH4/DH5 Milling and Transport	14-A-502
	1273.2		
	1273.3		
119.0	1234.0	Dryer House Warehouse # 1 Crown Feed Cooler	75-A-353-S2
167.0	1242.0	Dryer House Warehouse # 2 Crown Feed Cooler	90-A-111-S1

Germ Gluten, Fiber Loadout

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
190A	1256.0	Gluten Load Out Transfer	02-A-781-S2
190B	1257.0	Gluten Truck Load Out Bin	02-A-782-S2
179.0	1258.0	No. 1 Feed Truck Loadout	92-A-383-S3
180.0	1259.0	No. 2 Feed Truck Loadout	92-A-385-S2

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
WETFEED	1276.0	Wet Feed	15-A-199
RAILCR1	1274.0	Rail Car Loading of Feed	16-A-036
RAILCR2	1275.0	Rail Loadout of Gluten	16-A-037
FEEDBRG	1277.0	Loading of Feed into Barge	N/A

Specialty Products Production

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
E 1	U-1	Grain & Ingredient Unloading	N/A
E 7A	6335.0	SBM Bin	N/A
E 7B	6335.1	SBM Bin	N/A
E 9A	6337.1	Loadout Bin # 2	N/A
E 9B	6337.2	Loadout Bin	N/A
E 10	U-10	Cat Litter Pellet Cooler	03-A-1415-S4
FlatStor	6334.0	Flat Storage	N/A

Power House Boilers

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
1.0	5201.0	Power House - No.1 Boiler (120 MMBtu/hr)	95-A-374-S4
	5202.0	Power House - No.2 Boiler (120 MMBtu/hr)	
	5203.0	Power House - No.3 Boiler (105 MMBtu/hr)	
	5204.0	Power House - No.4 Boiler (105 MMBtu/hr)	
	5206.0	Power House - No.6 Boiler (230 MMBtu/hr)	
	5207.0	Power House - No.7 Boiler (230 MMBtu/hr)	
142.0	5210.0	Boiler No. 10 (162 MMBtu/hr)	85-A-038-P1
153.0	5211.0	Boiler No. 11 (162 MMBtu/hr)	85-A-135-P1
177.0	5212.0	Power House Boiler No. 12 (359.6 MMBtu/hr)	93-A-110-P1
189.0	5215.0	Lime Silo System	02-A-759
191.0	5220.0	Bulk Salt Silo	02-A-787

Anaerobic Wastewater Treatment

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
548.0	6210.0	WWTP Anaerobic Digester No. 1	11-A-661-S2
	6211.0	WWTP Anaerobic Digester No. 2	
	6212.0	WWTP Anaerobic Digester No. 3	

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
	6214.0	WWTP Anaerobic Digester No. 4	
548.1	6213.0	Biogas Desulfurization	11-A-662

Miscellaneous

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
470.0	4901.0	Diesel Firewater Pump (302 BHP)	N/A

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
4903.0	Gasoline Refueling Tank (15,000 gallons)
4904.0	Diesel Refueling Tank (2,000 gallons)
4905.0	Small Gasoline Tank (130 gallons)
4906.0	Kerosene Tank (300 gallons)
5002.0	Maintenance Welding
5338.1	Cat Litter Vacuum
2893.0	Wet Germ Receiving Bin
3122.0	Maltrin HCl Tank (10,500 gallons)
2441.0	Starch N HCl Tank (9,450 gallons)
2442.0	Starch S HCl Tank 1 (7,050 gallons)
2443.0	Starch S HCl Tank 2 (7,050 gallons)
2444.0	Starch S HCl Tank 3 (9,450 gallons)
1271.1	GP1 VF Pump Discharge 1
1271.2	GP1 VF Pump Discharge 2
2872.0	Sodium Bisulfite Tank (25,400 gallons)
2873.0	Y&E Hulls Tank (20,000 gallons)
1098.0	TBA Batch Tank (1,845 gallons)
1108.0	DCI Corrosion Inhibitor Tank (7,650 gallons)
1109.0	MIBK Tote S 1
1110.0	MIBK Tote S 2
1111.0	MIBK Tote Day Tank (334 gallons)
2875.0	Germ Storage Bin

II. Plant-Wide Conditions

Facility Name: Grain Processing Corporation
Permit Number: 03-TV-029R1

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.
Commencing on: March 13, 2017
Ending on: March 12, 2022

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_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter:
No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.
For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be

used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

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

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

NSPS and NESHAP Requirements

40 CFR 60 Subpart A Requirements

This facility is an affected source and these *General Provisions* apply to the facility. The affected units are listed below under each applicable subpart.

See Appendix for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart A
567 IAC 23.1(2)

40 CFR 60 Subpart Db Requirements

This facility is subject to Standards of Performance for *Industrial Commercial Institutional Steam Generating Units*. The affected unit is Power House Boiler No. 12 (EU5212.0).

See Appendix for a link to the Standard.

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

40 CFR 60 Subpart Dc Requirements
This facility is subject to Standards of Performance for *Industrial-Commercial-Institutional Steam Generating Units*. The affected unit is Dyer House 5 Swiss Combi Dryer (EU1266.0).
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart Dc
567 IAC 23.1(2) "lll"

40 CFR 60 Subpart Kb Requirements
This facility is subject to Standards of Performance for *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)* for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. The affected units are Ethanol Denaturant Storage Tank - #2 Unleaded Gasoline (EU 1097.0), Tank #7 Anhydrous Alcohol (EU 1067.0), Tank RJ2 Anhydrous Alcohol (EU 1080.0), Tank 5C (EU 1060.0), and "B" Tank Farm Ethanol Storage Tanks 1H and 2H (EU 1048.0 and 1049.0).
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart Kb
567 IAC 23.1(2) "ddd"

40 CFR Subpart DD Requirements
The facility is subject to Standards of Performance for *Grain Elevators*. The affected units are North Grain Unloading (EU 6001.0-6001.9, 6002.1-6001-9, 6007.1-6007.4)
See Appendix A for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart DD
567 IAC 23.1(2) "ooo"

40 CFR 60 Subpart VV Requirements
The facility is subject to Standards of Performance for *Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* for Which Construction, Reconstruction or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 (40 CFR 60.480 through 40 CFR 60.489). The affected units are equipment in VOC service and any applicable devices and systems (as defined in 40 CFR 60.481) in the entire facility. The owner or operator shall comply with the applicable requirements in 40 CFR 60.480 through 60.489, including recordkeeping requirements in 40 CFR 60.486 and reporting requirements in 40 CFR 60.487.
See Appendix A for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart VV
567 IAC 23.1(2) "nn"

40 CFR 63 Subpart A
This facility is an affected source and these *General Provisions* apply to the facility. The affected units are listed below under each applicable subpart.
See Appendix A for a link to the Standard.
Authority for Requirements: 40 CFR 63 Subpart A
567 IAC 23.1(4)

40 CFR 63 Subpart FFFF Requirements
This facility is subject to National Emission Standards for Hazardous Air Pollutants for *Miscellaneous Organic Chemical Manufacturing*.
See Appendix A for a link to the Standard.
Authority for Requirements: 40 CFR 63 Subpart FFFF
567 IAC 23.1(4) "cf"

40 CFR 63 Subpart ZZZZ Requirements
This facility is subject to National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines* (RICE NESHAP). The affected unit is Diesel Firewater Pump (EU4901.0).
See Appendix A for a link to the Standard.
Authority for Requirements: 40 CFR 63 Subpart ZZZZ
567 IAC 23.1(4) "cz"

40 CFR 63 Subpart DDDDD Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial, and Institutional Boilers and Process Heaters*. The affected units are Power House Boilers #1 - #7 (EU 5201.0 – 5207.0), Boiler #10 (EU 5210.0), Boiler #11 (EU 5211.0), Power House Boiler No. 12 (EU 5212.0), and Dryer House 5, Swiss Combi Dryer (EU1266.0).
See Appendix A for a link to the Standard.
Authority for Requirements: 40 CFR 63 Subpart DDDDD

III. Emission Point-Specific Conditions

Facility Name: Grain Processing Corporation
Permit Number: **03-TV-029R1**

Emission Point ID Number: 490.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: North Grain Unloading
Emissions Control Equipment ID Number: See Table: North Grain Unloading
Emissions Control Equipment Description: See Table: North Grain Unloading

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Table: North Grain Unloading

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity	Control Equipment Number	Control Equipment Description
490.0	6001.1	North Trunk Receiving Pit	Corn	14,000 bu	CE-6001-1	Baghouse "A"
	6001.2	North Trunk Receiving Screw Conveyor		30,000 bu/hr		
	6001.3	North Trunk Receiving Bucket Elevator		18,750 bu/hr		
	6001.4	North Bins Distribution Legs (6)		18,750 bu/hr		
	6001.5	North Bins: Bin #1		50,000 bu		
	6001.6	North Bins: Bin #2		50,000 bu		
	6001.7	North Bins: Bin #4		50,000 bu		
	6001.8	North Bins: Bin #5		50,000 bu		
	6001.9	North Bins: Bin #6		50,000 bu		
	6002.1	Levy Truck Receiving Pit		14,000 bu	CE-6002-1	Baghouse "B"
	6002.2	Levy Truck Receiving Screw Conveyor		30,000 bu/hr		
	6002.3	Levy Truck Receiving Bucket Elevator		18,750 bu/hr		
	6002.4	Levy Bins Distribution Legs (5)		18,750 bu/hr		
	6002.5	Levy Bins: Bin #1		100,000 bu		
	6002.6	Levy Bins: Bin #2		100,000 bu		
	6002.7	Levy Bins: Bin #3		100,000 bu		
	6002.8	Levy Bins: Bin #4		100,000 bu		
	6002.9	Levy Bins: Bin #5		100,000 bu		
	6007.1	North Bins: Bin #3		50,000 bu	CE-6007-1	Baghouse "C"
	6007.2	Conveyor From Corn Screenings		29 ton/hr		
	6007.3	Conveyor From Baghouse "A"		13,500 scfm		
	6007.4	Conveyor From Baghouse "B"		13,500 scfm		

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-687-S2
567 IAC 23.1(2)"ooo"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.52 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-687-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 5.57 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-687-S2
567 IAC 23.4(7)

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

NSPS and NESHAP Applicability

The elevators are subject to the New Source Performance Standard (NSPS) for *Grain Elevators* (40 CFR 60 Subpart DD; 567 IAC 23.1(2)"ooo"). Since the emissions from the elevators are combined with other units prior to being exhausted to the atmosphere and there is no way to demonstrate compliance with the standard from only the affected units, the NSPS standard is applied to the emission point.

Authority for Requirement: 40 CFR Part 60 Subpart DD
DNR Construction Permit 02-A-687-S2
567 IAC 23.1(2)"ooo"

Operating Limits

Control equipment parameters:

1. All baghouses associated with this emission point shall be operated and maintained according to the manufacturer's specifications.

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

1. The owner/operator shall maintain a copy of the manufacturer's specifications for the operation and maintenance of all baghouses associated with this emission point.
2. A maintenance and inspection log shall be maintained for each baghouse associated with this emission point. This log shall include, but not be limited to, the date and time of each inspection or maintenance activity on the baghouse, a description of the activity performed and the issues that were noted during the activity.

Authority for Requirement: DNR Construction Permit 02-A-687-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 179
Stack Diameter (inches, dia.): 42
Exhaust Flow Rate (scfm): 29,350
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 02-A-687-S2

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

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

Opacity Monitoring

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

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

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

Authority for Requirement: 567 IAC 22.108(14)

Stack Testing

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed by – March 12, 2019 [(1)]
Test Method – 40 CFR 51 Appendix M, 201A with 202 or approved alternative
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed by - March 12, 2019 [(1)]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – 567 IAC 22.108(3)

[(1)] Stack tests required only if this emission point is still in service 2 years from permit issuance.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan
CAM Plan for EP 490.0 Baghouses

I. Background

A. Emissions Unit
Description: North Grain Unloading
Identification: EU 6001.1-6001.9, EU 6002.1-6002.9, EU 6007.1-6007.4
Facility: Grain Processing Corporation
1600 Oregon Street
Muscatine, IA 52761

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.: DNR Construction Permit 02-A-687-S2
Particulate emission limit: PM: 5.57 lb/hr; 0.1 gr/dscf
PM_{10}: 2.52 lb/hr
Opacity emission limit: 0%
Current Monitoring requirements:
1. Stack testing
2. Daily pressure drop across baghouse
3. Weekly opacity (no visible emissions) readings

C. Control Technology
Reverse Air Baghouse operated under negative pressure

II. Monitoring Approach

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

Table A – Monitoring Approach

	Indicator #1	Indicator #2
I. Indicator	Differential pressure across baghouse	Visible Emissions
Measurement Approach	Differential pressure measured across the baghouse by a magnetic pressure gauge.	Visible emissions from baghouse exhaust while EU 6000.1-6001.9, EU 6002.1-6002.9, and EU 6007.1-6007.4 are operating.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is 0.5 – 5 inches water. Excursions	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection

	trigger an inspection, corrective action and a recordkeeping requirement. The inspection that is triggered is a 6 minute visible emissions observation.	that is triggered is a 6 minute visible emissions observation.
III. Performance Criteria		
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Grain Processing Corporation to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded. These forms will be kept a minimum of 5 years.	Records shall be maintained for a minimum of 5 years.

Authority for Requirements: 567 IAC 22.108(3)
40 CFR Part 64

Emission Point ID Number: 181.2

Associated Equipment

Associated Emission Unit ID Number: 6006.0
Emissions Control Equipment ID Number: 6006-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 6006.0
Emission Unit Description: Corn (Grain) Unloading to Storage
Raw Material/Fuel: Distillers Dried Grains and Glutens
Rated Capacity: 350 tons/hr

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.

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits 76-A-264, 76-A-268
567 IAC 23.4(7)

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 147.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Corn Cleaner
Emissions Control Equipment ID Number: 2808-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Table: Corn Cleaner

Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity
2808.0	Wet Mill: No. 1 Corn Cleaner	Corn	204 tons/hr
2808.1	Wet Mill: No. 2 Corn Cleaner		204 tons/hr
2808.2	Wet Mill: No. 3 Corn Cleaner		204 tons/hr
2808.3	Wet Mill: No. 4 Corn Cleaner		204 tons/hr
2809.0	Corn Day Bin		7,300 bushels

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 85-A-043-S1
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.12 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-043-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr/dscf [(2)] (LAER limit)
Authority for Requirement: DNR Construction Permit 85-A-043-S1
LAER (SIP)
[(2)]Limit established when the Muscatine Area was designated non-attainment for TSP (PM).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 85-A-043-S1
567 IAC 23.4(7)

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

Operating Limits

Control equipment parameters:

A. The owner or operator shall maintain the control equipment according to manufacturer's specifications and maintenance schedule.

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

A. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 85-A-043-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 16
Stack Opening (inches, dia.): 24 x 30
Exhaust Flowrate (scfm): 25,000
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 85-A-043-S1

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

submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing:

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed by – March 12, 2019
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement: 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed by - March 12, 2019
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement: 567 IAC 22.108(3)

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

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

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

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

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: 200N

Associated Equipment

Associated Emission Unit ID Number: See Table: EP 200N
Emissions Control Equipment ID Number: 2810-1
Emissions Control Equipment Description: Spray Chamber Scrubber

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Table: EP 200N *

Associated Emission Unit Numbers	Emission Unit Descriptions	Raw Material/Fuel	Rated Capacity
2810.0 - 2833.0	Corn Wet Mill Steep Tanks Nos. 1-24	Corn	3050 bushels each
2834.0 – 2839.0	Corn Wet Mill Steep Tanks Nos. 25-30	Corn	4550 bushels each
2898.1	North Corn Wet Drag	Steeped Corn	100,500 bu/day

*At the time of permit issuance, construction is not complete for this emission point. Until construction is complete, each emission unit in the table above is vented out its individual stack, is not permitted by a construction permit, and does not have any applicable requirements.

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.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.80 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-200
567 IAC 23.3(3)"e"

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

Operating Limits

A. The Spray Chamber Scrubber (CE2810-1) shall be installed by December 31, 2017 to control SO_2 emissions from Corn Steep Tanks 1-30 (EU2810.0 – EU2839.0) and the North Wet Corn Drag (EU2898.1).
B. No later than 60 days prior to initiating modification of the Corn Steep Tanks 1-30 (EU2810.0 – EU2839.0) and the North Wet Corn Drag (EU2898.1) by installing the Spray Chamber Scrubber (CE2810-1), the owner or operator shall apply to modify construction permit number 15-A-200. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the

scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

C. Sodium bisulfite ($NaHSO_3$) shall be used as a steeping additive for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0). Prior to using any other steeping additive as a substitute for sodium bisulfite in the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall apply for, and obtain, a modification to this construction permit.
D. The amount of sodium bisulfite added on a wet basis to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0) shall not exceed 0.40 pound per bushel of corn on a monthly basis.
E. The concentration of sodium bisulfite in the solution added to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0) shall not exceed 42% by weight.

Reporting & Record keeping

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

A. The owner or operator shall maintain a record of the completion date for the installation of the Spray Chamber Scrubber (CE2810-1).
B. The owner or operator shall develop for the Spray Chamber Scrubber (CE2810-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
C. The owner or operator shall maintain the following daily records for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0):
   i. The total amount of sodium bisulfite added on a wet basis to the tanks, in pounds; and
   ii. The total amount of corn loaded into the tanks, in bushels.
D. For Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall calculate for each calendar month the amount of sodium bisulfite added on a wet basis per bushel of corn (pounds $NaHSO_3$ / bushel).
E. The owner or operator shall maintain a record of a Safety Data Sheet or other supplier information that shows the weight percent of sodium bisulfite in the liquid solution added to the steeping tanks.

Authority for Requirement: DNR Construction Permit 15-A-200

<u>Emission Point Characteristics</u>

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 60
Stack Opening (inches, dia.): 48
Exhaust Flowrate (scfm): 22,500
Exhaust Temperature (^oF): 129
Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 15-A-200

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

Monitoring Requirements

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

Stack Testing

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 15-A-200

[(1)] After the initial performance test, performance testing for SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO_2 emission limit in condition 10, the owner or operator may request to modify the performance testing frequency for SO_2.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 200S

Associated Equipment

Associated Emission Unit ID Number: See Table: EP 200S
Emissions Control Equipment ID Number: 2810-2
Emissions Control Equipment Description: Spray Chamber Scrubber

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Table: EP 200S *

Associated Emission Unit Numbers	Emission Unit Descriptions	Raw Material/Fuel	Rated Capacity
2840.0 - 2851.0 2860.0 – 2867.0	Corn Wet Mill Steep Tanks Nos. 31-42 and 51-58	Corn	4550 bushels each
2852.0 – 2859.0 2868.0 – 2871.0	Corn Wet Mill Steep Tanks Nos. 43-50 and 59-62	Corn	6700 bushels each
2898.2	South Corn Wet Drag	Steeped Corn	179,600 bu/day

* At the time of permit issuance, construction is not complete for this emission point. Until construction is complete, each emission unit in the table above is vented out its individual stack, is not permitted by a construction permit, and does not have any applicable requirements.

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.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 3.17 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-201
567 IAC 23.3(3)"e"

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

Operating Limits

A. The Spray Chamber scrubber (CE2810-2) shall be installed by January 31, 2018 to control SO2 emissions from Corn Steep Tanks 31-62 (EU2840.0 – EU2871.0) and the South Wet Corn Drag (EU2898.2).
B. No later than 60 days prior to initiating modification of the Corn Steep Tanks 31-62 (EU2840.0 – EU2871.0) and the South Wet Corn Drag (EU2898.2) by installing the Spray Chamber Scrubber (CE2810-2), the owner or operator shall apply to modify construction permit number 15-A-201. In the application, the owner or operator shall include, at a

minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

C. Sodium bisulfite ($NaHSO_3$) shall be used as a steeping additive for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0). Prior to using any other steeping additive as a substitute for sodium bisulfite in the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall apply for, and obtain, a modification to DNR Construction Permit 15-A-201.
D. The amount of sodium bisulfite added on a wet basis to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0) shall not exceed 0.40 pound per bushel of corn on a monthly basis.
E. The concentration of sodium bisulfite in the solution added to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0-EU2871.0) shall not exceed 42% by weight.

Reporting & Record keeping

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

A. The owner or operator shall maintain a record of the completion date for the installation of the Spray Chamber Scrubber (CE2810-2).
B. The owner or operator shall develop for the Spray Chamber Scrubber (CE2810-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
C. The owner or operator shall maintain the following daily records for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0):
   i. The total amount of sodium bisulfite added on a wet basis to the tanks, in pounds; and
   ii. The total amount of corn loaded into the tanks, in bushels.
D. For Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall calculate for each calendar month the amount of sodium bisulfite added on a wet basis per bushel of corn (pounds $NaHSO_3$ / bushel).
E. The owner or operator shall maintain a record of a Safety Data Sheet or other supplier information that shows the weight percent of sodium bisulfite in the liquid solution added to the steeping tanks.

Authority for Requirement: DNR Construction Permit 15-A-201

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 60
Stack Opening (inches, dia.): 48
Exhaust Flowrate (scfm): 22,500
Exhaust Temperature (^oF): 129
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-201

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

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

Stack Testing

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 15-A-201

[(1)] After the initial performance test, performance testing for SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO_2 emission limit in condition 10, the owner or operator may request to modify the performance testing frequency for SO_2.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 264.0

Associated Equipment

Associated Emission Unit ID Numbers: 2896.0

Emission Unit vented through this Emission Point: 2896.0
Emission Unit Description: Corn Wet Mill Steep Water Tank
Raw Material/Fuel: Fresh Steep Water
Rated Capacity: 360,000 gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.001 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-202
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): 43
Stack Opening (inches, dia.): 12
Exhaust Flowrate (scfm): 90
Exhaust Temperature (^oF): 130
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 15-A-202

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 282.0

Associated Equipment

Associated Emission Unit ID Numbers: 2898.3

Emission Unit vented through this Emission Point: 2898.3
Emission Unit Description: Wet Corn Drag Vent
Raw Material/Fuel: Corn
Rated Capacity: 68 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: Sulfur Dioxide (SO_2)
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 periodic 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: 278.0

Associated Equipment

Associated Emission Unit ID Numbers: 2433.0

Emission Unit vented through this Emission Point: 2433.0
Emission Unit Description: Starch Building
Raw Material/Fuel: Steeped Corn
Rated Capacity: 100,000 scfm (total of five exhaust fans)

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_2)
Emission Limit(s): 0.10 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-208
567 IAC 23.3(2)"e"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): NA
Stack Opening (inches, dia.): NA
Exhaust Flowrate (scfm): 100,000
Exhaust Temperature (^oF): 68
Discharge Style: NA
Authority for Requirement: DNR Construction Permit 85-A-043-S1

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 279.0

Associated Equipment

Associated Emission Unit ID Numbers: 2895.1 – 2895.6
Emissions Control Equipment ID Number: 2895-1
Emissions Control Equipment Description: Spray Chamber Scrubber

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Emission Unit vented through this Emission Point: 2895.1 – 2895.6
Emission Unit Description: Wet Mill Bins Nos. 1 - 6
Raw Material/Fuel: Steeped Corn
Rated Capacity: 40 tons/hr (each bin)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.87 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-209
567 IAC 23.3(2)"e"

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

Operating Limits

A. The Spray Chamber Scrubber (CE2895-1) shall be installed by March 31, 2018 to control SO_2 emissions from Wet Milling Bins 1-6.
B. No later than 60 days prior to initiating modification of Wet Milling Bins 1-6 by installing the Spray Chamber Scrubber (CE2895-1), the owner or operator shall apply to modify construction permit number 15-A-209. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

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

A. The owner or operator shall maintain a record of the completion date for the installation of the Spray Chamber Scrubber (CE2895-1).
B. The owner or operator shall develop for the Spray Chamber Scrubber (CE2895-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.

Authority for Requirement: DNR Construction Permit 15-A-209

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 80
Stack Opening (inches, dia.): 36
Exhaust Flowrate (scfm): 20,018
Exhaust Temperature (^{o}F): 68
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-209

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

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

Stack Testing

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 15-A-209

[(1)] After the initial performance test, performance testing for SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO_2 emission limit the owner or operator may request to modify the performance testing frequency for SO_2.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 14.0 and 96.0

Associated Equipment

Associated Emission Unit ID Numbers: 2801.0; 2803.0
Emissions Control Equipment ID Number: 2801-1; 2803-1
Emissions Control Equipment Description: Cyclones

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (tons/hr)
14.0	2801.0	#1 Wet Germ Cyclone to #1 North Top Rotary Germ Drier	Wet Germ	6.65
96.0	2803.0	#2 Wet Germ Cyclone to #3 South Top Rotary Germ Drier		6.65

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the following specified levels.

Emission Point Number	Associated Emission Unit Number	PM2.5 Limit (lb/hr)	PM_{10} Limit (lb/hr)	PM Limit (lb/hr)	SO_2 Limit (lb/hr)	Construction Permit No.
14.0	2801.0	0.028	0.11	0.11	0.40 *	15-A-078
96.0	2803.0	0.013	0.044	0.044	0.20	74-A-014-S1

*RACT limit

Emission Limits for Both EP 14.0 and EP 96.0

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permits 15-A-078, 74-A-014-S1

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permits 15-A-078, 74-A-014-S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"
DNR Construction Permits 15-A-078, 74-A-014-S1

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

Operating Limits

A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2801-1, CE2803-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2801-1, CE2803-1).

Authority for Requirement: DNR Construction Permits 15-A-078, 74-A-014-S1

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The required stack testing at EP 96.0 could not be completed because a Method 2 could not be performed due to cyclonic interference.

Condition
The permittee has submitted an application to modify DNR Construction Permit 74-A-014-S1 (project number 17-028). Emission point 96.0 will be in compliance with the PM2.5, PM10, PM, Opacity, and SO2 limits when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point Number	Emission Unit Number	Construction Permit No.	Stack Height (ft, from the ground)	Stack Opening (inches, dia)	Exhaust Flowrate (scfm)	Exhaust Temp. (ºF)	Discharge Style
14.0	2802.0	15-A-078	56	8 x 13	890	Ambient	Vertical Unobstructed
96.0	2804.0	74-A-014-S1	53	10.75	514	120	Vertical Unobstructed

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

Monitoring Requirements

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

Stack Testing for EP 96.0 Only

Pollutant – Opacity
Stack Test to be Completed – Within 6 months after the issuance of DNR Construction Permit 74-A-014-S1
Test Method – 40 CFR 60 Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 74-A-014-S1

Pollutant – Particulate Matter ($PM_{2.5}$) (1)
Stack Test to be Completed - Within 6 months after the issuance of DNR Construction Permit 74-A-014-S1
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 74-A-014-S1

Pollutant – Particulate Matter (PM_{10}) (2)
Stack Test to be Completed - Within 6 months after the issuance of DNR Construction Permit 74-A-014-S1
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 74-A-014-S1

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - Within 6 months after the issuance of DNR Construction Permit 74-A-014-S1
. Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 74-A-014-S1

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed - Within 6 months after the issuance of DNR Construction Permit 74-A-014-S1
. Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 74-A-014-S1

(1) If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.
(2) It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: Germ Dryers

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Germ Dryers
Emissions Control Equipment ID Number: See Table: Germ Dryers
Emissions Control Equipment Description: See Table: Germ Dryers

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Table: Germ Dryers

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons/hr)
15.0	2802.0	#1 North Top Rotary Germ Dryer	2802-1	Cyclone	Dried Germ	6.65 each or 13.3 maximum
	2802.1	#2 North Bottom Rotary Germ Dryer	2802-2	Packed Bed Scrubber		
97.0	2804.0	# 3 South Top Rotary Germ Dryer	2804-1	Cyclone	Dried Germ	9.0 maximum; 6.65 process design
			2804-2	Packed Bed Scrubber		
126.0	2807.0	# 4 South Bottom Rotary Germ Dryer	2807-1	Cyclone	Dried Germ	13.3
			2807-2	Packed Bed Scrubber		

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the following specified levels.

Table: Germ Dryers-Emission Limits

Emission Point Number	Associated Emission Unit Number	$PM_{2.5}$ (lb/hr)	PM_{10} (lb/hr)	PM lb/hr	SO_2 (lb/hr)	Construction Permit No.
15.0	2802.0	0.239	0.84	0.84	1.50	79-A-194-S2
	2802.1					
97.0	2804.0	0.134	0.47	0.47	0.90	74-A-015-S2
126.0	2807.0	0.120	0.42	0.42	1.10	79-A-195-S2

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permits Specified in Table: Germ Dryers-Emission Limits
567C 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits Specified in Table: Germ Dryers-Emission Limits
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permits Specified in Table: Germ Dryers-Emission Limits
567 IAC 23.3(3)"e"

Operational Limits & Requirements

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

Operating Limits

A. The owner or operator shall develop an operating and maintenance plan for the cyclones (CE2802-1, CE2804-1, and CE2807-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routing and long-term maintenance.
B. By no later than August 30, 2017, the owner or operator shall install the Packed Bed Scrubber (CE2802-2, CE2804-2, and CE2807-2) to control SO_2 emissions from Germ Driers #1 and #2 (EU2802.0, EU2802.1), Germ Drier #3, and Germ Drier #4 (EU2807.0).
C. No later than 60 days prior to initiating modification of Germ Driers #1 and #2 (EU2802.0, EU2802.1), Germ Drier #3 (EU2804.0), and Germ Drier #4 (EU2807.0) by installing the Packed Bed Scrubbers (CE2802-2, CE2804-2, CE2807-2), the owner or operator shall apply to modify the corresponding construction permits. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

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

A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclones (CE2802-1, CE2804-1, and CE2807-1).
B. The owner or operator shall maintain a record of the completion date for the installation of the Packed Bed Scrubbers (CE2802-2, CE2804-2, and CE2807-2).
C. The owner or operator shall develop for the Packed Bed Scrubbers (CE2802-2, CE2804-2, and CE2807-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.

Authority for Requirement: DNR Construction Permits 79-A-194-S2, 74-A-015-S2, 79-A-195-S2

Emission Point Characteristics
These emission points shall conform to the conditions specified in Table: Germ Dryers-Emission Point Characteristics.

Table: Germ Dryers-Emission Point Characteristics

Emission Point Number	Emission Unit Number	Construction Permit No.	Stack Height (ft, from the ground)	Stack Opening (inches, dia.)	Exhaust Flowrate (scfm)	Exhaust Temp. (ºF)	Discharge Style
15.0	2802.0	79-A-194-S2	94	18.5 x 21.5	5,500	226	Vertical Unobstructed
	2802.1						
97.0	2804.0	74-A-015-S2	84	18	5,562	212	Vertical Unobstructed
126.0	2807.0	79-A-195-S2	75	18	3,480	210	Vertical Unobstructed

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

Authority for Requirement: DNR Construction Permits specified in Table: Germ Dryers-Emission Point Characteristics.

Monitoring Requirements

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

Stack Testing

Pollutant – Opacity
Stack Test to be Completed - Once Every 3 Calendar Years [(3) (4)]
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 79-A-195-S2, 74-A-015-S2, 79-A-195-S2

Pollutant – Particulate Matter ($PM_{2.5}$) [(1)]
Stack Test to be Completed – Once Every 3 Calendar Years [(3) (4)]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 79-A-195-S2, 74-A-015-S2, 79-A-195-S2

Pollutant – Particulate Matter (PM_{10}) [(2)]
Stack Test to be Completed - Once Every 3 Calendar Years [(3) (4)]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 79-A-195-S2, 74-A-015-S2, 79-A-195-S2

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - Once Every 3 Calendar Years [(3) (4)]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 79-A-195-S2, 74-A-015-S2, 79-A-195-S2

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed - Once Every 3 Calendar Years [(3) (4)]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 79-A-195-S2, 74-A-015-S2, 79-A-195-S2

[(1)] If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the $PM_{2.5}$ limit 10 by using methods specified in 40 CFR Part 60, Appendix A Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered $PM_{2.5}$.

[(2)] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

(3) The owner or the owner's authorized agent shall verify compliance with the emission limitations no later than one hundred and twenty days (120) days after the installation of the Packed Bed Scrubber (CE2802-2) is completed.
(4) After the initial performance test, performance testing for PM, PM_{10}, $PM_{2.5}$, opacity, and SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM_{10}, $PM_{2.5}$, opacity, and SO_2 emission limits in the Emission Limits section above, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$, opacity, and SO_2.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 178.0

Associated Equipment

Associated Emission Unit ID Numbers: 2874.0
Emissions Control Equipment ID Number: 2874-1
Emissions Control Equipment Description: Cyclone

Emission Unit vented through this Emission Point: 2874.0
Emission Unit Description: No. 5 Germ Dryer
Raw Material/Fuel: Wet Germ
Rated Capacity: 13.8 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: DNR Construction Permit 91-A-176
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit: 0.1 gr/scf; 4.19 lb/hr; 18.3 tons/yr
Authority for Requirement: DNR Construction Permit 91-A-176
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit: 500 ppmv
Authority for Requirement: DNR Construction Permit 91-A-176
567 IAC 23.3(3)"e"

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): N/A
Stack Diameter (inches): N/A
Stack Exhaust Flow Rate (scfm): 9,777
Stack Temperature (^oF): N/A
Discharge Style: N/A
Authority for Requirement: Iowa DNR Construction Permit 91-A-176

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may

vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – March 12, 2019
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement: 567 IAC 22.108(3)

(1) It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 194.0

Associated Equipment

Associated Emission Unit ID Numbers: 2894.0
Emissions Control Equipment ID Number: 2894-1
Emissions Control Equipment Description: Cyclone

Emission Unit vented through this Emission Point: 2894.0
Emission Unit Description: #3 Wet Germ Pneumatic Transfer System
Raw Material/Fuel: Wet Germ
Rated Capacity: 28 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 02-A-783-S1
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_{10})
Emission Limit(s): 0.07 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-783-S1

Pollutant: Particulate Matter
Emission Limit: 0.1 gr/scf
Authority for Requirement: DNR Construction Permit 02-A-783-S1
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 59
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (scfm): 2,500
Stack Temperature (^{o}F): 80
Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-783-S1

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

Monitoring Requirements

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

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

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

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

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

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan 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: 98.0

Associated Equipment

Associated Emission Unit ID Numbers: 2805.0
Emissions Control Equipment ID Number: 2805-2
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 2805.0
Emission Unit Description: Whole Germ Receiving Expeller
Raw Material/Fuel: Dry Corn Germ
Rated Capacity: 13.3 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% [(1)]
Authority for Requirement: DNR Construction Permit 74-A-016-S2
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_{10})
Emission Limit(s): 0.12 lb/hr
Authority for Requirement: DNR Construction Permit 74-A-016-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.12 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 74-A-016-S2
567 IAC 23.4(7)

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

Operating Limits

Control equipment parameters:

A. The baghouse, CE 2805-2, differential pressure drop shall be maintained between 1 and 6 inches water column while the Whole Germ Receiving Expeller is in use.
B. The owner or operator shall develop a operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
C. The owner or operator shall properly operate and maintain equipment to periodically monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

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

A. The owner or operator shall collect and record pressure drop across the baghouse, in inches of water, at least once per calendar day. This requirement shall not apply on the days that the Whole Germ Receiving Expeller is not in use.
B. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection/maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 74-A-016-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 98'8"
Stack Opening (inches, dia.): 14
Exhaust Flowrate (dscfm): 2,850
Exhaust Temperature (^{o}F): 130
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 74-A-016-S2

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

submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 545.0

Associated Equipment

Associated Emission Unit ID Number: See Table: Expellers
Emissions Control Equipment ID Numbers: See Table: Expellers
Emissions Control Equipment Description: See Table: Expellers

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Table: Expellers

Emission Unit Number	Emission Unit Description	Rated Capacity (tons/hr)	Raw Material/ Fuel	Control Equipment Number	Control Equipment Description
2876.0	# 1 Expeller	0.95	Corn	2876-1	West Baghouse
2877.0	# 2 Expeller	0.95			
2878.0	# 3 Expeller	0.95			
2879.0	# 4 Expeller	0.95			
2880.0	# 5 Expeller	0.95			
2881.0	# 6 Expeller	0.95			
2888.0	# 13 Expeller	0.95			
2890.0	# 15 Expeller	0.95			
2882.0	# 7 Expeller	0.978		2882-1	East Baghouse
2883.0	# 8 Expeller	0.978			
2884.0	# 9 Expeller	0.978			
2885.0	# 10 Expeller	0.978			
2886.0	# 11 Expeller	0.978			
2887.0	# 12 Expeller	0.978			
2889.0	# 14 Expeller	0.978			
2892.0	# 16 Expeller	0.978			
2893.0	# 17 Expeller	0.978			

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-1261-S1
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 ($PM_{2.5}$)
Emission Limit(s): 0.694 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-1261-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.50 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-1261-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.50 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-1261-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.50 lb/hr (RACT limit); 10.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 06-A-1261-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 18.7 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 06-A-1261-S1

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

LAER Emission Limit

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 0.078 gr/scf [(2)]
Authority for Requirement: DNR Construction Permit 06-A-1261-S1
567 IAC 31.20(1)"d"

[(2)] The emission units associated with the East Baghouse (CE 2882-1) are subject to a Lowest Achievable Emission Rate (LAER) limit of 0.078 gr/scf per permit 85-A-044-S1. As is listed in Permit Condition 11, those units are Expellers #7 – 12, 14, 16, and 17 (EUs 2882 – 2887, 2889, 2892 – 2893, respectively). Since the LAER emission limit cannot be removed, the PM emissions from the exit of the East Baghouse are limited to 0.078 gr/scf.

<u>Operational Limits & Requirements</u>
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Operating Limits

A. The differential pressure drop across the Baghouse (CE2876-1) shall be maintained between 0.1 and 4 inches water column.
B. The differential pressure drop across the Baghouse (CE2882-1) shall be maintained between 0.1 and 4 inches water column.

C. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE2876-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
D. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE2882-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
E. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE2876-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
F. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE2882-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE2876-1), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE2876-1) falls outside the range specified in Operating Limits Condition A above, the owner or operator shall investigate the Baghouse (CE2876-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE2876-1) is not in operation.
B. The owner or operator shall collect and record the pressure drop across the Baghouse (CE2882-1), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE2882-1) falls outside the range specified in Operating Limits Condition B. above, the owner or operator shall investigate the Baghouse (CE2882-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE2882-1) is not in operation.
C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE2876-1).
D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE2882-1).

Authority for Requirement: DNR Construction Permit 06-A-1261-S1

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted June 7th -16th, 2016 show an exceedance of the permitted PM2.5 limits.

Condition
The permittee has submitted an application to modify DNR Construction Permit 06-A-1261-S1 (project number 16-485). This emission point will be in compliance with the PM2.5 limit when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 95
Stack Opening (inches, dia.): 36
Exhaust Flowrate (scfm): 20,769
Exhaust Temperature (^{o}F): 115
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-1261-S1

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

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – One Time
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 06-A-1261-S1

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in

the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 38.0

Associated Equipment

Associated Emission Unit ID Numbers: 1213.0
Emissions Control Equipment ID Number: 1213-1
Emissions Control Equipment Description: Fabric Filter Baghouse

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Emission Unit vented through this Emission Point: 1213.0
Emission Unit Description: Gluten Day Bin
Raw Material/Fuel: Gluten Meal
Rated Capacity: 6.85 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% [(1)]
Authority for Requirement: DNR Construction Permit 71-A-067-S4
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 ($PM_{2.5}$)
Emission Limit(s): 0.027 lb/hr
Authority for Requirement: DNR Construction Permit 71-A-067-S4

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.14 lb/hr
Authority for Requirement: DNR Construction Permit 71-A-067-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.14 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 71-A-067-S4
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.16 lb/hr; 5.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 71-A-067-S4

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 5.00 $ppm_{v, d}$ [(2)]
Authority for Requirement: DNR Construction Permit 71-A-067-S4

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Operational Limits and Requirements

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

Operating Limits

1. The Baghouse's (CE1213-1) differential pressure drop shall be maintained between 0.1 and 4 inches water column.
2. The owner or operator shall properly operate and maintain equipment to periodically monitor the differential pressure drop across the Baghouse (CE1213-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
3. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1213-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1213-1), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE1213-1) falls outside the range specified in Condition A. above, the owner or operator shall investigate the Baghouse (CE1213-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE1213-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1213-1).

Authority for Requirement: DNR Construction Permit 71-A-067-S4

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted June 7th -16th, 2016 show an exceedance of the permitted PM2.5 limits.

Condition
The permittee has submitted an application to modify DNR Construction Permit 71-A-067-S4 (project number 16-485). This emission point will be in compliance with the PM2.5 limit when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 43
Stack Opening (inches, dia.): 12
Exhaust Flow Rate (scfm): 3,293
Exhaust Temperature (^{o}F): 77
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 71-A-067-S4

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

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$) [(1)]
Stack Test to be Completed – One Time
after the issuance of DNR Construction Permit 71-A-067-S4
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 71-A-067-S4

[(1)] If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table 1: GP1 Gluten Filters

Associated Equipment

Associated Emission Unit ID Numbers: See Table 1: GP1Gluten Filters I

Table 1: Gluten Filters

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Construction Permit Number
268.0	1250.0	GP1: Gluten Filter No. 1	Gluten	0.86	15-A-203
269.0	1251.0	GP1: Gluten Filter No. 2	Gluten	0.86	15-A-204
270.0	1252.0	GP1: Gluten Filter No. 3	Gluten	0.86	15-A-205
271.0	1253.0	GP1: Gluten Filter No. 4	Gluten	0.86	15-A-206
272.0	1254.0	GP1: Gluten Filter No. 5	Gluten	0.86	15-A-207
283.0	1255.6	GP1: Gluten Filter No. 6	Gluten	0.86	15-A-480
284.0	1255.7	GP1: Gluten Filter No. 7	Gluten	0.86	15-A-481
285.0	1255.8	GP1: Gluten Filter No. 8	Gluten	0.86	15-A-482
286.0	1255.9	GP1: Gluten Filter No. 9	Gluten	0.86	15-A-483

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: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.067 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permits specified in Table 1: GP1 Gluten Filters
567 IAC 23.3(3)"e"

Emission Point Characteristics
The emission points shall conform to the conditions listed in Table 2: GP1 Gluten Filters.

Table 2: GP1 Gluten Filters

Emission Point Number	Emission Unit Number	Stack Height (ft, from the ground)	Stack Opening (inches, dia.)	Exhaust Flowrate(scfm)	Exhaust Temperature (F)	Discharge Style
268.0	1250.0	30	10.5	4,170	73	Horizontal
269.0	1251.0	40	10.5	4,170	73	Horizontal
270.0	1252.0	30	10.5	4,170	73	Horizontal
271.0	1253.0	40	10.5	4,170	73	Horizontal
272.0	1254.0	39.5	10.5	4,170	73	Horizontal

Emission Point Number	Emission Unit Number	Stack Height (ft, from the ground)	Stack Opening (inches, dia.)	Exhaust Flowrate(scfm)	Exhaust Temperature (F)	Discharge Style
283.0	1255.6	65.5	10.5	4,170	73	Horizontal
284.0	1255.7	66	10.5	4,170	73	Horizontal
285.0	1255.8	66	10.5	4,170	73	Horizontal
286.0	1255.9	65.5	10.5	4,170	73	Horizontal

Authority for Requirement: DNR Construction Permits specified in Table 1: GP1 Gluten Filters

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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 Numbers: 43.1

Associated Equipment

Associated Emission Unit ID Number: See Table: Gluten Flash Dryers 1 and 2
Emissions Control Equipment ID Numbers: See Table: Gluten Flash Dryers 1 and 2
Emissions Control Equipment Description: See Table: Gluten Flash Dryers 1 and 2

Table: Gluten Flash Dryers 1 and 2

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity	Control Equipment Number	Control Equipment Description
43.1	1217.0	#1 Gluten Flash Dryer	Gluten Meal	1.35 tons/hr	1217-3	Product Recovery Cyclones, Turbotak Scrubber w/ Cyclonic Separator
	1217.1	#1 Gluten Flash Dryer Direct Fired Burner	Natural Gas	16 MMBtu/hr		
	1217.2	#2 Gluten Flash Dryer	Gluten Meal	1.35 tons/hr		
	1217.3	#2 Gluten Flash Dryer Direct Fired Burner	Natural Gas	16 MMBtu/hr		

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from the emission point shall not exceed the following specified levels.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 75-A-087-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 1.140 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-087-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 6.0 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-087-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 6.0 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 75-A-087-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.95 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 75-A-087-S2
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.7 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-087-S2

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 25.3 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-087-S2

Operating Limits and Requirements

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

Operating Limits

A. The Turbotak Scrubber (CE1217-3) shall be installed by August 1, 2016 to control emissions from #1 and #2 Gluten Dryers (EU1217.0, EU1217.2).
B. The Turbotak Scrubber's (CE1271-3) atomizing liquor flow rate shall be maintained at or above 80 gallons per minute.
C. The Turbotak Scrubber's (CE1271-3) wash liquor flow rate shall be maintained at or above 650 gallons per minute.
D. The pH range of the scrubbing liquor in the Turbotak Scrubber (CE1271-3) shall be maintained between 5 and 8.
E. The owner or operator shall properly operate and maintain equipment to monitor the atomizing liquor flow rate, the wash liquor flow rate, and pH of the liquor in the Turbotak Scrubber (CE1217-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
F. The owner or operator shall develop an operating and maintenance plan for the Turbotak Scrubber (CE1217-3) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
G. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
H. The owner or operator shall increase the stack height of EP43.1 from 96 feet to 140 feet above ground by August 1, 2016.

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

A. The owner or operator shall collect and record the atomizing liquor flow rate to the Turbotak Scrubber (CE1217-3), in gallons per minute on a continuous basis. If the atomizing liquor flow rate to the Turbotak Scrubber (CE1217-3) falls below the value specified in Operating Limits Condition B, the owner or operator shall investigate the Turbotak Scrubber (CE1217-3) and make corrections to the Turbotak Scrubber (CE1217-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Turbotak Scrubber (CE1217-3) is not in operation.
B. The owner or operator shall collect and record the wash liquor flow rate to the Turbotak Scrubber (CE1217-3), in gallons per minute on a continuous basis. If the wash liquor flow rate to the Turbotak Scrubber (CE1217-3) falls below the value specified in Operating Limits Condition C, the owner or operator shall investigate the Turbotak Scrubber (CE1217-3) and make corrections to the Turbotak Scrubber (CE1217-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Turbotak Scrubber (CE1217-3) is not in operation.
C. The owner or operator shall collect and record the scrubbing liquor pH in the Turbotak Scrubber (CE1217-3), on a continuous basis. If the pH of the scrubbing liquor in Turbotak Scrubber (CE1217-3) falls outside the range specified in Operating Limits Condition D, the owner or operator shall investigate Turbotak Scrubber (CE1217-3) and make corrections to Turbotak Scrubber (CE1217-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Turbotak Scrubber (CE1217-3) is not in operation.
D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Turbotak Scrubber (CE1217-3).
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.
F. The owner or operator shall maintain a record of installation date and operation commencement date of the Turbotak Scrubber (CE1217-3).
G. The owner or operator shall maintain a record of the completion date that EP43.1 was raised from 96 feet to 140 feet above ground.

Authority for Requirement: DNR Construction Permit 75-A-087-S2

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted January 19, 2017 show exceedances of the permitted $PM_{2.5}$ and VOC limits, and compliance with the PM and PM_{10} emission limits cannot be determined.

Condition
The permittee must submit a compliance plan to address the $PM_{2.5}$, and VOC violations by April 6, 2017. This compliance plan should include the steps that will be taken to address the compliance issues and a timeline of when these steps shall occur. The permittee should also include a plan to address the low capacity and PM/PM_{10} test results.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 140
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 41,072
Exhaust Temperature (^oF): 131
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 75-A-087-S2
The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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

Stack Testing

Pollutant – Opacity
Stack Test to be Completed - Once Every 3 Calendar Years (3)
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 75-A-087-S2

Pollutant – Particulate Matter ($PM_{2.5}$) (1)
Stack Test to be Completed – Once Every 3 Calendar Years (3)
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 75-A-087-S2

Pollutant – Particulate Matter (PM_{10}) (2)
Stack Test to be Completed - Once Every 3 Calendar Years (3)
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 75-A-087-S2

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 775-A-087-S2

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 75-A-087-S2

[1] If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the $PM_{2.5}$ limit by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried gluten product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered $PM_{2.5}$.

[2] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

[3] After the initial performance test, performance testing for PM, PM_{10}, $PM_{2.5}$, opacity, and SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM_{10}, $PM_{2.5}$, opacity, and SO_2 emission limits in the Emission Limits section above, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$, opacity and SO_2.

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

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

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

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

Authority for Requirement: 56s7 IAC 22.108(3)

Emission Point ID Number: See Table 1: GP2 Gluten Filters

Associated Equipment

Associated Emission Unit ID Numbers: See Table 1: GP2 Gluten Filters I

Table 1: GP2 Gluten Filters

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Construction Permit Number
312.0	1281,1, 1281.4	GP2: Gluten Filter No. 1, Gluten Filter No. 4	Gluten	0.86 each	15-A-484
313.0	1282.2, 1281.3	GP2: Gluten Filter No. 2, Gluten Filter No. 3	Gluten	0.86 each	15-A-485
314.0	1281.5, 1281.6, 1281.7	GP2: Gluten Filter No. 5, Gluten Filter No. 6, Gluten Filter No. 7	Gluten	0.86 each	15-A-486

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.

For Emission Points 312.0 and 313.0

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.134 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permits 15-A-484, 15-A-485
567 IAC 23.3(3)"e"

For Emission Point 314.0

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.201 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-486
567 IAC 23.3(3)"e"

Emission Point Characteristics
The emission points shall conform to the conditions listed in Table 2: GP2 Gluten Filters.

Table 2: GP2 Gluten Filters

Emission Point Number	Emission Unit Number	Stack Height (ft, from the ground)	Stack Opening (inches, dia.)	Exhaust Flowrate(scfm)	Exhaust Temperature (F)	Discharge Style
312.0	1281,1, 1281.4	39	24	5,430	81	Horizontal
313.0	1282.2, 1281.3	39	24	5,430	81	Horizontal
314.0	1281.5, 1281.6, 1281.7	65	24	5,430	81	Horizontal

Authority for Requirement: DNR Construction Permits specified in Table 1: GP2 Gluten Filters

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 173.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: No. 4 Gluten Flash Dryer
Emissions Control Equipment ID Numbers: See Table: No. 4 Gluten Flash Dryer
Emissions Control Equipment Description: See Table: No. 4 Gluten Flash Dryer

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Table: No. 4 Gluten Flash Dryer

Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity	Control Equipment Number	Control Equipment Description
1244.0	# 4 Gluten Flash Dryer	Gluten Meal	6.13 ton/hr	1244-1	Wet Scrubber
1244.1	Gas-Fired Heater	Natural Gas	28.8 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% [(1)]
Authority for Requirement: DNR Construction Permit 91-A-067-S2
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_{10})
Emission Limit(s): 5.31 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-067-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 5.31 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 91-A-067-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 4.50 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 91-A-067-S2
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 8.90 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-067-S2

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 8.90 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-067-S2

Pollutant: Hydrogen Sulfide (H_2S)
Emission Limit(s): 1.0 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-067-S2

Operational Limits & Requirements

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

Operating Limits

Process throughput:

A. The bottlenecked capacity of the #4 Gluten Flash Dryer, EU 1244.0, is 5.16 tons per hour of dry product.
B. The #4 Gluten Flash Dryer Gas-Fired Heater, EU 1244.1, shall only combust natural gas, natural gas mixed with biogas from the on-site wastewater treatment plant and combustion air.

Control equipment parameters:

C. The scrubber, CE 1244-1, scrubber water flowrate shall be maintained at or above the flowrate measured in gallons per minute during the most recent performance test that demonstrates compliance with the permitted emission limits. Once the stack testing required under this permit has been completed, the facility shall modify construction permit 91-A-067-S2 to establish scrubber flowrate operating parameters based on the stack testing completed.
D. The scrubber, CE 1244-1, pressure drop shall be maintained at or above the pressure drop measured in inches of water during the most recent performance test that demonstrates compliance with the permitted emission limits. Once all stack testing required under the permit has been completed, the facility shall modify construction permit 91-A-067-S2 to establish a operating pressure drop range based on the stack testing completed.
E. The scrubber, CE 1244-1, pH shall be maintained at or above the pH measured in standard units during the most recent performance test that demonstrates compliance with the permitted emission limits. Once all stack testing required under the permit has been completed, the facility shall modify construction permit 91-A-067-S2 to establish an operating pH range based on the stack testing completed.
F. The owner or operator shall maintain the control equipment according to manufacturer's specifications and maintenance schedule.

Reporting & Record keeping

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

A. The #4 Gluten Flash Dryer is bottlenecked by the gluten dewatering vacuum filter prior to the dryer. Maintain a record of the capacity of the gluten dewatering vacuum filters. Any modifications to the gluten dewatering vacuum filters that changes the throughput of the equipment may require the permit for the #4 Gluten Flash Dryer to be modified.
B. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flowrate. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The permittee shall collect and record the scrubber water flowrate, in gallons per minute, continuously. This requirement shall not apply on the days that the scrubber is not in operation.
D. The permittee shall properly operate and maintain equipment to periodically monitor the pressure drop across the scrubber. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
E. The permittee shall collect and record the pressure drop across the scrubber, in inches of water, at least once per day. This requirement shall not apply on the days that the scrubber is not in operation.
F. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the liquid in the scrubber. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
G. The permittee shall collect and record the pH of the liquid in the scrubber, in standard units, continuously. This requirement shall not apply on the days that the scrubber is not in operation.
H. The permittee shall maintain a record of the minimum scrubber water flowrate observed during the most recent performance test which demonstrated compliance with the emission limits for reference.
I. The permittee shall maintain a record of the minimum scrubber pressure drop observed during the most recent performance test which demonstrated compliance with the emission limits for reference.
J. The permittee shall maintain a record of the lowest pH observed during the most recent performance test which demonstrated compliance with the emission limits for reference.
K. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 91-A-067-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 148
Stack Opening, (inches, dia.): 80
Exhaust Flow Rate (scfm): 59,100
Exhaust Temperature (^oF): 125
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

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

Stack Testing

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed – March 12, 2020
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – March 12, 2020
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed – March 12, 2018
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 174.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Pneumatic Conveying and Cooling of Gluten
Emissions Control Equipment ID Numbers: 1245-1
Emissions Control Equipment Description: GP2, Product Baghouse

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Table: Pneumatic Conveying and Cooling of Gluten

Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Maximum Nameplate Rated Capacity (tons/hr)	Maximum Process Design Capacity (tons/hr)
1245.0	#4 Gluten Pre-Mill Cooling System	Corn Gluten	6.13	5.0
1246.0	Gluten Mill			

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 91-A-068-S2

[(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 ($PM_{2.5}$)
Emission Limit(s): 0.150 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-068-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.41 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-068-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.41 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 91-A-068-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.37 lb/hr; 10.0 ppmv,d (RACT limit) [(2)]
Authority for Requirement: DNR Construction Permit 91-A-068-S2
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 15.0 ppmv,d [(2)]
Authority for Requirement: DNR Construction Permit 91-A-068-S2

[(2)] As required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Operational Limits & Requirements

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

Operating Limits

A. The baghouse's (CE1245-1) differential pressure drop shall be maintained between 0.1 and 10 inches water column.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the baghouse (CE1245-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1245-1), in inches of water, at least once per day. If the pressure drop across the baghouse (CE1245-1) falls outside the range specified in paragraph A. in the Operating Limits section above, the owner or operator shall investigate the baghouse (CE1245-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1245-1) is not in operation.

B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the baghouse (CE1245-1).

Authority for Requirement: DNR Construction Permit 91-A-068-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 82
Stack Opening, (inches, dia.): 18
Exhaust Flow Rate (scfm): 8,295
Exhaust Temperature (^{o}F): 115
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-A-068-S2

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 531.0

Associated Equipment

Associated Emission Unit ID Numbers: 1260.0
Emissions Control Equipment ID Number: 1260-1
Emissions Control Equipment Description: Fabric Filter Baghouse

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Applicable Requirements

Emission Unit vented through this Emission Point: 1260.0
Emission Unit Description: Gluten Plant 1 Pneumatic Transport System
Raw Material/Fuel: Dried Gluten
Rated Capacity: 2.7 tons/hr maximum process design capacity
(5.1 tons/hr maximum nameplate capacity)

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permit 03-A-471-S2
567 IAC 23.3(2)"d"

[(1)] An exceedence of the indicator opacity of no visible emissions 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 ($PM_{2.5}$)
Emission Limit(s): 0.122 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-471-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.42 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-471-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.42 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 03-A-471-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.10 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 03-A-471-S2
567 IAC 23.3(3)"e"

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

Operating Limits

A. The baghouse's (CE1260-1) differential pressure drop shall be maintained between 0.3 and 6 inches water column.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the baghouse (CE1260-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the baghouse (CE1260-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1260-1), in inches of water, at least once per day. If the pressure drop across the baghouse (CE1260-1) falls outside the range specified in condition A. in the Operating Limits section above, the owner or operator shall investigate the baghouse (CE1260-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1260-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 03-A-471-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.): 24
Exhaust Flowrate (scfm): 9,914
Exhaust Temperature (^{o}F): 121
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-471-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may

vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements

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: 143.0

Associated Equipment

Associated Emission Unit ID Numbers: 2431.0, 2431.1
Emissions Control Equipment ID Number: CE2431-1, CE2471-2
Control Equipment Description: Product Recovery Cyclones, Impingement Scrubber (CE2431-1); Ultra Low NOx Burner (CE2431-2)

Emission Unit vented through Emission Point 2431.0, 2431.1
Emission Unit Description: No. 1 Starch Flash Dryer
Raw Material/Fuel: Starch, Natural Gas
Rated Capacity: 10.9 tons/hr dried starch; 40 MMBtu/hr natural gas

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.

Pollutant: Opacity
Emission Limit(s): 40% [1]
Authority for Requirement: DNR Construction Permit 85-A-039-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 2.64 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-039-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 6.0 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-039-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 6.0 lb/hr; 0.1 gr/dscf; 0.05 gr/scf (LAER limit)
Authority for Requirement: DNR Construction Permit 85-A-039-S1
567 IAC 23.4(7)
566 IAC 31.20(1)"d"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.0 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 85-A-039-S1
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxide (NO_x)
Emission Limit(s): 0.04 lb/MMBtu
Authority for Requirement: DNR Construction Permit 85-A-039-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 85-A-039-S1

[(1)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 10.0 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-039-S1

Operational Limits & Requirements

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

Operating Limits

A. No. 1 Starch Flash Dryer (EU2431.0) is limited to a maximim starch production rate of 95,484 tons per rolling 12-month period on a dry solids basis.
B. The Impingement Scrubber (CE2431-1) total liquor flowrate shall be maintained at or above 200 gallons per minute.
C. The pressure drop across Impingement Scrubber (CE2431-1) shall be maintained between 5 to 11 inches of water column.
D. The owner or operator shall utilize only fresh water (city water) or fresh water (city water) and clarifier filtrate (filtered plant water) blend as the make-up water for Impingement Scrubber (CE2431-1).
E. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and differential pressure drop across the Impingement Scrubber (CE2431-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
F. The owner or operator shall develop an operating and maintenance plan for Impingement Scrubber (CE2431-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
G. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

H. The owner or operator shall tune Ultra Low NOx Burner (CE2431-2) on an annual basis. The annual Ultra Low NOx Burner (CE2431-2) tuning shall include at a minimum:
    - Burner inspection-Clean and replace any components, as necessary
    - Flame inspection-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications.
    - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly.
    - Optimize emissions- Optimize CO and NOx emissions consistent with the manufacturer's specifications.

Reporting & Record keeping

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

A. The owner or operator shall record the starch production rate from No. 1 Starch Flash Dryer (EU2431.0) in tons on a monthly basis. The owner or operator shall calculate and record the rolling 12-month totals in tons.
B. The owner or operator shall collect and record the total liquor flow rate to Impingement Scrubber (CE2431-1), in gallons per minute on a daily basis. If the total liquor flow rate to Impingement Scrubber (CE2431-1) falls below the value specified in Operating Limits condition B, the owner or operator shall investigate Impingement Scrubber (CE2424-1) and make corrections to Impingement Scrubber (CE2431-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Impingement Scrubber (CE2424-1) is not in operation.
   Every measurement of the total liquor flow rate shall be equal to or greater than 200 gallons per minute. Authority for Requirement: 567 IAC 22.108(3).
C. The owner or operator shall collect and record the pressure drop across the Impingement Scrubber (CE2431-1), in inches of water, on a daily basis. If the pressure drop across Impingement Scrubber (CE2431-1) falls outside the range specified in Operating Limits condition C, the owner or operator shall investigate Impingement Scrubber (CE2431-1) and make corrections to Impingement Scrubber (CE2431-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Impingement Scrubber (CE2431-1) is not in operation.
D. The owner or operator shall maintain a record that only fresh water (city water) or fresh water (city water) clarifier filtrate (filtered plant water) blend are utilized as make-up water for Impingement Scrubber (CE2431-1).
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Impingement Scrubber (CE2431-1).
F. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.
G. The owner or operator shall maintain record on annual basis of Ultra Low NOx Burner (CE2431-2) tuning and that burner emissions and oxygen levels have been optimized per manufacturer's specifications.

H. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Ultra Low NOx Burner (CE2431-2).
I. The owner or operator shall maintain a record of the date that the equipment and emission points specified in Table 1 of the Operating Limits section of DNR Construction Permit 85-A-039-S1 have permanently ceased operation and have been decommissioned.
J. The owner or operator shall maintain a record of the completion date that EP143.0 increased from 137 ft, from the ground to 177 ft, from the ground above ground.

Authority for Requirement: DNR Construction Permit 85-A-039-S1

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted June 7, 2016 show an exceedance of the permitted VOC limit.

Condition
The permittee has submitted a plan to address the VOC violations. The Iowa Department of Natural Resources is currently reviewing the plan.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 177.0
Stack Opening (inches): 96
Exhaust Flow Rate (scfm): 85,000
Exhaust Temperature (^{o}F): 110
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 85-A-039-S1

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

Monitoring Requirements

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

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed - Annually (1)
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 85-A-039-S1

Pollutant – Particulate Matter ($PM_{2.5}$) (3)
Stack Test to be Completed - Annually (1)
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 85-A-039-S1

Pollutant – Particulate Matter (PM_{10}) (2)
Stack Test to be Completed - Annually (1)
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 85-A-039-S1

Pollutant – Particulate Matter (PM) – State
Stack Test to be Completed - Annually (1)
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M, Method 202
Authority for Requirement – DNR Construction Permit 85-A-039-S1

Pollutant – Carbon Monoxide (CO)
Stack Test to be Completed – One Every 5 Calendar Years
Test Method – 40 CFR 60, Appendix A, Method 10
Authority for Requirement – DNR Construction Permit 85-A-039-S1

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed - One Time
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 85-A-039-S1

(1) Performance testing for PM, PM_{10}, $PM_{2.5}$ and visible observation shall be conducted annually with minimum of 6 months between performance tests. After the completion of three consecutive performance tests that demonstrate compliance with particulate limits as specified in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$ and visible observation.
(2) Performance testing may be conducted for total particulate matter to demonstrate compliance with PM_{10} limit as specified in permit condition 10.
(3) If performance testing using methods specified in 40 CFR 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation) then the owner or operator shall demonstrate

compliance with $PM_{2.5}$ limit as specified in permit condition 10 by conducting methods specified in 40 CFR 60, Appendix A, Method 5 and 40 CFR 51 Appendix M Method 202. Utilizing Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried starch product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. Utilizing Method 202, the measured condensable fraction shall be considered all $PM_{2.5}$.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: 158.0

Associated Equipment

Associated Emission Unit ID Numbers: 2424.0, 2424.1
Emissions Control Equipment ID Number: CE2424-1, CE2424-2
Control Equipment Description: Product Recovery Cyclones, Impingement Scrubber (CE2424-1); Ultra Low NOx Burner (CE2424-2)

Emission Unit vented through Emission 2424.0, 2424.1
Emission Unit Description: No. 2 Starch Flash Dryer
Raw Material/Fuel: Starch, Natural Gas
Rated Capacity: 16.3 tons/hr dried starch; 50 MMBtu/hr natural gas

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.

Pollutant: Opacity
Emission Limit(s): 40% [1]
Authority for Requirement: DNR Construction Permit 90-A-258-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 2.10 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-258-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 4.22 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-258-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 4.22 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 90-A-258-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.40 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 90-A-258-S1
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxide (NO_x)
Emission Limit(s): 0.04 lb/MMBtu
Authority for Requirement: DNR Construction Permit 90-A-258-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 90-A-258-S1

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 12.50 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-258-S1

Operational Limits & Requirements

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

Operating Limits

A. No. 2 Starch Flash Dryer (EU2424.0) is limited to a maximim starch production rate of 142,788 tons per rolling 12-month period on a dry solids basis.
B. The Impingement Scrubber (CE2424-1) total liquor flowrate shall be maintained at or above 800 gallons per minute.
C. The pressure drop across Impingement Scrubber (CE2424-1) shall be maintained between 8 to 14 inches of water column.
D. The owner or operator shall utilize only fresh water (city water) or fresh water (city water) and clarifier filtrate (filtered plant water) blend as the make-up water for Impingement Scrubber (CE2424-1).
E. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and differential pressure drop across the Impingement Scrubber (CE2424-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
F. The owner or operator shall develop an operating and maintenance plan for Impingement Scrubber (CE2424-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
G. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
H. The owner or operator shall tune Ultra Low NOx Burner (CE2424-2) on an annual basis. The annual Ultra Low NOx Burner (CE2424-2) tuning shall include at a minimum:
    - Burner inspection-Clean and replace any components, as necessary
    - Flame inspection-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's

specifications.

- Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly.
- Optimize emissions- Optimize CO and NOx emissions consistent with the manufacturer's specifications.

Reporting & Record keeping

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

A. The owner or operator shall record the starch production rate from No. 2 Starch Flash Dryer (EU2424.0) in tons on a monthly basis. The owner or operator shall calculate and record the rolling 12-month totals in tons.
B. The owner or operator shall collect and record the total liquor flow rate to Impingement Scrubber (CE2424-1), in gallons per minute on a daily basis. If the total liquor flow rate to Impingement Scrubber (CE2424-1) falls below the value specified in Operating Limits condition B, the owner or operator shall investigate Impingement Scrubber (CE2424-1) and make corrections to Impingement Scrubber (CE2424-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Impingement Scrubber (CE2424-1) is not in operation.
C. The owner or operator shall collect and record the pressure drop across the Impingement Scrubber (CE2424-1), in inches of water, on a daily basis. If the pressure drop across Impingement Scrubber (CE2424-1) falls outside the range specified in Operating Limits condition C, the owner or operator shall investigate Impingement Scrubber (CE2424-1) and make corrections to Impingement Scrubber (CE2424-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Impingement Scrubber (CE2424-1) is not in operation.
D. The owner or operator shall maintain a record that only fresh water (city water) or fresh water (city water) clarifier filtrate (filtered plant water) blend are utilized as make-up water for Impingement Scrubber (CE2424-1).
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Impingement Scrubber (CE2424-1).
F. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.
G. The owner or operator shall maintain record on annual basis of Ultra Low NOx Burner (CE2424-2) tuning and that burner emissions and oxygen levels have been optimized per manufacturer's specifications.
H. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Ultra Low NOx Burner (CE2424-2).
I. The owner or operator shall maintain a record of the date that the equipment and emission points specified Table 1 of the Operating Limits section of DNR Construction Permit 90-A-258-S1 have permanently ceased operation and have been decommissioned.

J. The owner or operator shall maintain a record of the completion date that EP158.0 increased from 139 ft, from the ground to 179.0 ft, from the ground above ground.

Authority for Requirement: DNR Construction Permit 90-A-258-S1

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted June 30, 2016 show an exceedance of the permitted VOC limit.

Condition
The permittee has submitted a plan to address the VOC violations. The Iowa Department of Natural Resources is currently reviewing the plan.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 179
Stack Opening (inches): 96.1
Exhaust Flow Rate (scfm): 105,000
Exhaust Temperature (^{o}F): 110
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-258-S1

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

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

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed - Annually [(1)]
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 90-A-258-S1

Pollutant – Particulate Matter ($PM_{2.5}$) [3]
Stack Test to be Completed - Annually [1]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 90-A-258-S1

Pollutant – Particulate Matter (PM_{10}) [2]
Stack Test to be Completed - Annually [1]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 90-A-258-S1

Pollutant – Particulate Matter (PM) – State
Stack Test to be Completed - Annually [1]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M, Method 202
Authority for Requirement – DNR Construction Permit 90-A-258-S1

Pollutant – Carbon Monoxide (CO)
Stack Test to be Completed – Once Every 5 Calendar Years
Test Method – 40 CFR 60, Appendix A, Method 10
Authority for Requirement – DNR Construction Permit 90-A-258-S1

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed - One Time
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 90-A-258-S1

(1) Performance testing for PM, PM_{10}, $PM_{2.5}$ and visible observation shall be conducted annually with minimum of 6 months between performance tests. After the completion of three consecutive performance tests that demonstrate compliance with particulate limits as specified in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$ and visible observation.

(2) Performance testing may be conducted for total particulate matter to demonstrate compliance with PM_{10} limit as specified in permit condition 10.

(3) If performance testing using methods specified in 40 CFR 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation) then the owner or operator shall demonstrate compliance with $PM_{2.5}$ limit as specified in permit condition 10 by conducting methods specified in 40 CFR 60, Appendix A, Method 5 and 40 CFR 51 Appendix M Method 202. Utilizing Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried starch product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. Utilizing Method 202, the measured condensable fraction shall be considered all $PM_{2.5}$.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in

the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: See Table: Starch Silos 1-4

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Starch Silos 1-4
Emissions Control Equipment ID Numbers: See Table: Starch Silos 1-4
Emissions Control Equipment Description: See Table: Starch Silos 1-4

Table: Starch Silos 1-4

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Control Equipment Number	Control Equipment Description
149.0	2419.0	Starch Silo # 1 (N)	Cornstarch	10.5	2419-1	Baghouse
150.0	2420.0	Starch Silo # 2 (E)	Cornstarch	10.5	2420-1	Baghouse
151.0	2421.0	Starch Silo # 3 (S)	Cornstarch	10.5	2421-1	Baghouse
152.0	2422.0	Starch Silo # 4 (W)	Cornstarch	10.5	2422-1	Baghouse

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.

Table: Starch Silos 1-4 Emission Limits

Emission Point Number	Emission Unit Number	Opacity Limit 567 IAC 23.2(2)"d"	PM Limit (gr/dscf) 567 IAC 23.2(2)"d"	PM_{10} Limit (lb/hr)	Construction Permit Number Authority for Requirement
149.0	2419.0	No Visible Emissions(1)	0.1	0.2	85-A-081-S1
150.0	2420.0	No Visible Emissions(1)	0.1	0.2	85-A-082-S1
151.0	2421.0	No Visible Emissions(1)	0.1	0.2	85-A-083-S1
152.0	2422.0	No Visible Emissions(1)	0.1	0.2	85-A-084-S1

(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).

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 118
Stack Opening (inches, dia.): 10
Exhaust Flowrate (scfm): 1,200
Exhaust Temperature (^{o}F): 100
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permits specified in Table: Starch Silos
1-4- Emission Limits

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

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

Opacity shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. 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 opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the 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: See Table: Starch Silos 5-10

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Starch Silos 5-10
Emissions Control Equipment ID Numbers: See Table: Starch Silos 5-10
Emissions Control Equipment Description: See Table: Starch Silos 5-10

Table: Starch Silos 5-10

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Maximum Loading Rate (lbs/hr)	Control Equipment Number	Control Equipment Description
159.0	2425.0	Starch Storage Bin # 5	Cornstarch	31,250	2425-1	Bin Vent Filter
160.0	2426.0	Starch Storage Bin # 6	Cornstarch	31,250	2426-1	Bin Vent Filter
161.0	2427.0	Starch Storage Bin # 7	Cornstarch	31,250	2427-1	Bin Vent Filter
162.0	2428.0	Starch Storage Bin # 8	Cornstarch	31,250	2428-1	Bin Vent Filter
171.0	2429.0	Starch Storage Bin # 9	Cornstarch	31,250	2429-1	Bin Vent Filter
172.0	2430.0	Starch Storage Bin # 10	Cornstarch	31,250	2430-1	Bin Vent Filter

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.

Table: Starch Silos 5-10 Emission Limits

Emission Point Number	Emission Unit Number	Opacity Limit 567 IAC 23.2(2)"d"	PM Limit 567 IAC 23.4(7)	PM_{10} Limit (lb/hr)	$PM_{2.5}$ Limit (lb/hr)	Construction Permit Number Authority for Requirement
159.0	2425.0	40% (1)	0.1 gr/dscf; 0.13 lb/hr	0.13	0.05	90-A-259-S1
160.0	2426.0	40% (1)	0.1 gr/dscf; 0.13 lb/hr	0.13	0.05	90-A-260-S1
161.0	2427.0	40% (1)	0.1 gr/dscf; 0.13 lb/hr	0.13	0.05	90-A-261-S1
162.0	2428.0	40% (1)	0.1 gr/dscf; 0.13 lb/hr	0.13	0.05	90-A-262-S1
171.0	2429.0	40% (1)	0.1 gr/dscf; 0.13 lb/hr	0.13	0.05	90-A-359-S1
172.0	2430.0	40% (1)	0.1 gr/dscf; 0.13 lb/hr	0.13	0.05	90-A-360-S1

(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).

Operational Requirements with Associated Monitoring and Recordkeeping

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

A. By their design, only two of the six starch storage bins identified as EU2425.0, EU2426.0, EU2427.0, EU2428.0, EU2429.0, and EU2430.0 can be filled at any one time. Therefore, only two storage bins exhaust to the atmosphere at any one time.
B. The owner or operator shall check for visible emissions from the Bin Vent Filters (CE2425-1, CE2426-1, CE2427-1, CE2428-1, CE2429-1, and CE2430-1) once per day at a time when the emission units (EU2425.0, EU2426.0, EU2427.0, EU2428.0, EU2429.0, and EU2430.0) are in operation. The owner or operator shall record the date and time of the observation and the presence or absence of visible emissions. If the owner or operator observes visible emissions from the Bin Vent Filters (CE2425-1, CE2426-1, CE2427-1, CE2428-1, CE2429-1, and CE2430-1), the owner or operator shall investigate the emission unit, control equipment or operations associated with the emission unit and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Bin Vent Filters (CE2425-1, CE2426-1, CE2427-1, CE2428-1, CE2429-1, and CE2430-1) are not in operation.
C. The owner or operator shall develop an operating and maintenance plan for the Bin Vent Filters (CE2425-1, CE2426-1, CE2427-1, CE2428-1, CE2429-1, and CE2430-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Bin Vent Filters (CE2425-1, CE2426-1, CE2427-1, CE2428-1, CE2429-1, and CE2430-1).

Authority for Requirement: DNR Construction Permits specified in Table: Starch Silos
No. 5-10-Emission Limits

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 94
Stack Opening (inches, dia.): 12
Exhaust Flowrate (scfm): 1500
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Horizontal Discharge
Authority for Requirement: DNR Construction Permits specified in Table: Starch Silos
5-10-Emission Limits

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

Monitoring Requirements

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

Stack Testing

Pollutant – Opacity
Stack Test to be Completed – One Time
Test Method – 40 CFR 60, Appendix A, Method 9 [(1)]
Authority for Requirement – DNR Construction Permits specified in Table: Starch Silos 5-10-Emission Limits

[(1)] The total duration of the Method 9 observations shall be 1 hour each for EP159.0, 160.0, 161.0, 162.0, 171.0, and 172.0.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 155.0

Associated Equipment

Associated Emission Unit ID Numbers: 2423.0
Emissions Control Equipment ID Number: 2423-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 2423.0
Emission Unit Description: Starch Sacker
Raw Material/Fuel: Corn Starch
Rated Capacity: 45.0 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 (PM)
Emission Limit(s): 0.1gr/dscf
Authority for Requirement: DNR Construction Permit 89-A-085
567 IAC 23.4(7)

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 144.0

Associated Equipment

Associated Emission Unit ID Numbers: 2436.0
Emissions Control Equipment ID Number: 2436-3
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 2436.0
Emission Unit Description: Starch Warehouse Food-Grade Bagger-Bagging & Super Sacking
Raw Material/Fuel: Starch
Rated Capacity: 20 tons/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 90-A-307-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.21 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-307-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.56 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-307-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.56 lb/hr ; 0.1 gr/dscf; 0.02 gr/scf (LAER limit)
Authority for Requirement: DNR Construction Permit 90-A-307-S2
567 IAC 23.4(7)
567 IAC 31.20(1)"d"

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

Operating Limits

A. The differential pressure drop across Baghouse (CE2436-3) shall be maintained between 0.5 and 6 inches water column while the equipment is in operation.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE2436-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE2436-3) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE2436-3), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE2436-3) falls outside the range specified in Operating Limits condition A., the owner or operator shall investigate Baghouse (CE2436-3) and make corrections to Baghouse (CE2436-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE2436-3) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE2436-3).

Authority for Requirement: DNR Construction Permit 90-A-307-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 140.0
Stack Opening (inches, dia.): 36
Exhaust Flow Rate (scfm): 13,130
Exhaust Temperature (^{o}F): 85
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-307-S2

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

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 122.0

Associated Equipment

Associated Emission Unit ID Numbers: 2435.0
Emissions Control Equipment ID Number: 2435-1
Emissions Control Equipment Description: Fabric Filter

Emission Unit vented through this Emission Point: 2435.0
Emission Unit Description: Pearl Starch Storage Bin
Raw Material/Fuel: Pearl Starch
Rated Capacity: 31.5 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): 0%
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 76-A-262-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.25 lb/hr
Authority for Requirement: DNR Construction Permit 76-A-262-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.25 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 76-A-262-S1
567 IAC 23.4(7)

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

Operating Limits

Work practice standards:

1. This unit shall be operated and maintained per the manufacturer's recommendations.

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

1. A copy of the manufacturer's recommended operation and maintenance schedules should be kept available for inspection. A log of all maintenance performed on the baghouse must be kept as well.

Authority for Requirement: DNR Construction Permit 76-A-262-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 50
Stack Opening (inches, dia.): 18
Exhaust Flowrate (cfm): 4,200
Exhaust Temperature (^{o}F): 90
Discharge Style: N/A
Authority for Requirement: DNR Construction Permit 76-A-262-S1

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

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

Opacity Monitoring

The following opacity check is only required during periods of operation and is only required a maximum of once per calendar week.

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. 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)

Stack Testing

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed – March 12, 2019
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – March 12, 2019
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan
CAM Plan for EP 122.0 Fabric Filter Baghouse

I. Background

A. Emissions Unit
Description: Pearl Starch Storage Bin
Identification: EU 2435.0
Facility: Grain Processing Corporation
1600 Oregon Street
Muscatine, IA 52761

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.: DNR Construction Permit 76-A-262-S1
Particulate emission limit: PM: 1.25 lb/hr; 0.1 gr/dscf
PM_{10}: 1.25 lb/hr
Opacity emission limit: 0%
Current Monitoring requirements:
1. Stack testing
2. Daily pressure drop across baghouse
3. Weekly opacity readings

C. Control Technology
Reverse Air Baghouse operated under negative pressure

II. Monitoring Approach

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

Table A – Monitoring Approach

	Indicator #1	Indicator #2
I. Indicator	Differential pressure across baghouse	Visible Emissions
Measurement Approach	Differential pressure measured across the baghouse by a magnetic pressure gauge.	Visible emissions from baghouse exhaust while EU 2435.0 is operating.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is 0.5 – 5 inches water. Excursions trigger an inspection,	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a 6 minute

	corrective action and a recordkeeping requirement. The inspection that is triggered is a 6 minute visible emissions observation .	visible emissions observation .
III. Performance Criteria		
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Grain Processing Corporation to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded. These forms will be kept a minimum of 5 years.	Records shall be maintained for a minimum of 5 years.

Emission Point ID Number: 130.0

Associated Equipment

Associated Emission Unit ID Numbers: 2434.0
Emissions Control Equipment ID Number: 2434-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 2434.0
Emission Unit Description: Four Industrial Starch Packers
Raw Material/Fuel: Corn Starch
Rated Capacity: 18,000 lb/hr (each packer)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 02-A-760-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.11 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-760-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-760-S1
567 IAC 23.4(7)

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

Operating Limits

A. The Four Starch Packers (EU2434.0) shall not loadout more than 45,000 pounds of starch per hour.
B. The baghouse, CE 2434-1 differential pressure drop shall be maintained between 1 and 8

inches water column while the baghouse is in use.

C. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. Each day the owner or operator shall record the number of hours the starch packers were operated and the amount of starch that was loaded out in pounds. The pound per hour throughput shall be determined each day by dividing the amount of starch bagged by the four starch packers by the number of hours the four starch packers operated each day.
B. The owner or operator shall properly operate and maintain equipment to periodically monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, at least once per day. This requirement shall not apply on the days that the baghouse is not in use.
D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 02-A-760-S1

<u>Emission Point Characteristics</u>

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 90
Stack Opening (inches, dia.): 18
Exhaust Flowrate (scfm): 2,500
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 02-A-760-S1

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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)

Emissions Point ID Number: 471.0

Associated Equipment

Associated Emission Unit ID Numbers: 2437.0
Emissions Control Equipment ID Number: 2437-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 2437.0
Emission Unit Description: Industrial Modified Starch Bin & Transfer System
Raw Material/Fuel: Modified Starch
Rated Capacity: 18 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): No Visible Emissions [(1)]
Authority for Requirement: DNR Construction Permit 03-A-079
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_{10})
Emission Limit(s): 3.29 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-079

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.29 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 03-A-079
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 111
Stack Opening (inches, dia.): 16 x 14
Exhaust Flowrate (scfm): 4,000
Exhaust Temperature (^{o}F): 80
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 03-A-079

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

Monitoring Requirements

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

Opacity Monitoring

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.

Stack Testing:

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed – March 12, 2021
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - March 12, 2021
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan
CAM Plan for EP 471.0 Baghouse

I. Background

A. Emissions Unit
Description: Industrial Modified Starch Bin & Transfer System
Identification: EU 2437.0
Facility: Grain Processing Corporation
1600 Oregon Street
Muscatine, IA 52761

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.: DNR Construction Permit 03-A-079
Particulate emission limit: PM: 3.29 lb/hr; 0.1 gr/dscf
PM_{10}: 3.29 lb/hr
Opacity emission limit: No Visible Emissions
Current Monitoring requirements:
1. Stack testing
2. Daily pressure drop across baghouse
3. Weekly opacity readings

C. Control Technology
Reverse Air Baghouse operated under negative pressure

II. Monitoring Approach

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

Table A – Monitoring Approach

	Indicator #1	Indicator #2
I. Indicator	Differential pressure across baghouse	Visible Emissions
Measurement Approach	Differential pressure measured across the baghouse by a magnetic pressure gauge.	Visible emissions from baghouse exhaust while EU 2437.0 is operating.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is 0.5 – 5 inches water. Excursions trigger an inspection,	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a 6 minute

	corrective action and a recordkeeping requirement. The inspection that is triggered is a 6 minute visible emissions observation .	visible emissions observation .
III. Performance Criteria		
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Grain Processing Corporation to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded. These forms will be kept a minimum of 5 years.	Records shall be maintained for a minimum of 5 years.

Emission Point ID Number: 95.0

Associated Equipment

Associated Emission Unit ID Number: 2416.0
Emissions Control Equipment ID Number: 2416-1
Emissions Control Equipment Description: Pulse Jet Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2416.0
Emission Unit Description: Starch South Bulk Loading: Railcar
Raw Material/Fuel: Corn Starch
Rated Capacity: 28 tons/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 75-A-246-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-246-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.26 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-246-S2

Pollutant: Particulate Matter
Emission Limit(s): 0.26 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 75-A-246-S2
567 IAC 23.4(7)

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

A. This emissions unit is currently not in operation. No later than thirty (30) days prior to the anticipated startup date of the emissions unit (EU2416.0), the owner or operator shall provide a written notification to the Stack Test Coordinator on the startup date of the emissions unit (EU2416.0) in accordance with General Condition G30.
B. Within 90 days after the startup of the emissions unit (EU2416.0), the owner or operator shall install, calibrate and operate equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2416-1) as specified in Conditions C, D, and E below.
   i. The owner or operator shall maintain a record of the installation date and the operation commencement date of the equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2416-1).
C. The differential pressure drop across the Pulse Jet Baghouse (CE2416-1) shall be maintained between 1 and 6 inches water column.
D. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2416-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
E. The owner or operator shall collect and record the pressure drop across the Pulse Jet Baghouse (CE2416-1), in inches of water, at least once per day. If the pressure drop across the Pulse Jet Baghouse (CE2416-1) falls outside the range specified in Condition C above, the owner or operator shall investigate the Pulse Jet Baghouse (CE2416-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Pulse Jet Baghouse (CE2416-1) is not in operation.
F. The owner or operator shall develop an operating and maintenance plan for the Pulse Jet Baghouse (CE2416-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Pulse Jet Baghouse (CE2416-1).

Authority for Requirement: DNR Construction Permit 75-A-246-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 64
Stack Diameter (inches, dia.): 18
Exhaust Flowrate (scfm): 6,000
Exhaust Temperature (^{o}F): 90
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 75-A-246-S2

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

submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed - One-Time [(1) (3)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 75-A-246-S2

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed - One-Time [(1) (2)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 75-A-246-S2

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - One-Time [(1)]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 75-A-246-S2

[(1)] The required performance tests shall be conducted when the bulk railcar loadout (EU2416.0) is in operation.
[(2)] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.
[(3)] If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 60.0

Associated Equipment

Associated Emission Unit ID Numbers: 2415.0
Emissions Control Equipment ID Number: 2415-1
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 2415.0
Emission Unit Description: Starch Quonset Bulk Loadout - Track 3/4 N: Loading Conveyor and Railcar Loadout
Raw Material/Fuel: Starch
Rated Capacity: 30 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% (1)
Authority for Requirement: DNR Construction Permit 02-A-952-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.068 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-952-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.18 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-952-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.18 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-952-S1
567 IAC 23.4(7)

Operational Requirements with Associated Monitoring and Recordkeeping

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

A. This emissions unit is currently not in operation. No later than thirty (30) days prior to the anticipated startup date of the emissions unit (EU2415.0), the owner or operator shall provide a written notification to the Stack Test Coordinator on the startup date of the emissions unit (EU2415.0) in accordance with General Conditions G30.
B. Within 90 days after the startup of the emissions unit (EU2415.0), the owner or operator shall install, calibrate and operate equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2415-1) as specified in Conditions C, D, and E below.
   ii. The owner or operator shall maintain a record of the installation date and the operation commencement date of the equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2415-1).
C. The differential pressure drop across the Pulse Jet Baghouse (CE2415-1) shall be maintained between 1 and 6 inches water column.
D. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2415-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
E. The owner or operator shall collect and record the pressure drop across the Pulse Jet Baghouse (CE2415-1), in inches of water, at least once per day. If the pressure drop across the Pulse Jet Baghouse (CE2415-1) falls outside the range specified in Condition C above, the owner or operator shall investigate the Pulse Jet Baghouse (CE2415-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Pulse Jet Baghouse (CE2415-1) is not in operation.
F. The owner or operator shall develop an operating and maintenance plan for the Pulse Jet Baghouse (CE2415-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Pulse Jet Baghouse (CE2415-1).

Authority for Requirement: DNR Construction Permit 02-A-952-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 48
Stack Opening (inches, dia.): 12
Exhaust Flowrate (cfm): 4,200
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 02-A-952-S1

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

Monitoring Requirements

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed - One-Time [(1)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 02-A-952-S1

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed - One-Time [(2)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 02-A-952-S1

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - One-Time
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 02-A-952-S1

[(1)] If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.
[(2)] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 163.0

Associated Equipment

Associated Emission Unit ID Numbers: 2432.0
Emissions Control Equipment ID Number: 2432-1
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 2432.0
Emission Unit Description: Starch WHSE, Track # 3A Loadout
Raw Material/Fuel: Starch
Rated Capacity: 50 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% (1)
Authority for Requirement: 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 ($PM_{2.5}$)
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-263

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.41 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-263

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.41 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 90-A-263-S1
567 IAC 23.4(7)

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

A. The differential pressure drop across the Pulse Jet Baghouse (CE2432-1) shall be maintained between 0.1 and 6 inches water column.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE2432-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall collect and record the pressure drop across the Pulse Jet Baghouse (CE2432-1), in inches of water, at least once per day. If the pressure drop across the Pulse Jet Baghouse (CE2432-1) falls outside the range specified in Condition A. above, the owner or operator shall investigate the Pulse Jet Baghouse (CE2432-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Pulse Jet Baghouse (CE2432-1) is not in operation.
D. The owner or operator shall develop an operating and maintenance plan for the Pulse Jet Baghouse (CE2432-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Pulse Jet Baghouse (CE2432-1).

Authority for Requirement: DNR Construction Permit 90-A-263-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.): 12 x 15
Exhaust Flowrate (scfm): 5,626
Exhaust Temperature (^{o}F): 89
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 90-A-263-S1

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

Monitoring Requirements

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed - One-Time [(1) (2)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 90-A-263-S1

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed - One-Time [(1) (3)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 90-A-263-S1

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - One-Time [(1)]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 90-A-263-S1

[(1)] Within one hundred and eighty (180) days after the issuance date of this permit.
[(2)] If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.
[(3)] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 537.0

Associated Equipment

Associated Emission Unit ID Numbers: 2440.0
Emissions Control Equipment ID Number: 2440-1
Emissions Control Equipment Description: Fabric Filter Baghouse

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Emission Unit vented through this Emission Point: 2440.0
Emission Unit Description: Pneumatic Transfer System Airlock Vent
Raw Material/Fuel: Modified Starch
Rated Capacity: 16 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%[(1)]
Authority for Requirement: DNR Construction Permit 03-A-1370
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.086 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1370

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.086 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 03-A-1370
567 IAC 23.4(7)

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

Operating Limits
Control equipment parameters:

A. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

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

A. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 03-A-1370

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 36
Stack Opening (inches, dia.): 4
Exhaust Flowrate (acfm): 500
Exhaust Temperature (^{o}F): 110
Discharge Style: Downwards
Authority for Requirement: DNR Construction Permit 03-A-1370

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 188.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: G Starch; G-Starch Process
Emissions Control Equipment ID Numbers: See Table: G Starch; G-Starch Process Controls
Emissions Control Equipment Description: See Table: G Starch; G-Starch Process Controls

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Table: G Starch; G-Starch Process

Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity
2501.0	Ingredient Bin #1 and #2; Super Sack Bag Dump Stations #1 and #2	Extruded Starch	76,000 lb/bin
2502.0	Ingredient Bin #3 and #4; Super Sack Bag Dump Stations #1 and #2		76,000 lb/bin
2503.0	Food Product Bin #1; Product Bin #2		250,000 lb/bin
2504.0	Product Bin #2; Industrial Product Bin #3		250,000 lb/bin
2505.0	Steam Heated Indirect Dryer and Cooler, and various pickup points-Product Bin Area, Ingredient Bin Area, Super Sack Dump and Ingredient Blender Area, Grinder and Screener Areas		4,250 lb/hr
2506.0	Ingredient Blender, Screener #1, Extruder, Grinder Feed Bin, Grinder, and various pick up points-Packaging & Bulk Loadout Areas-Railcar and Truck		20,000 lb/hr

Table: G Starch; G-Starch Process Controls

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description
2501.0	Ingredient Bin #1 and #2; Super Sack Bag Dump Stations #1 and #2	2501-1	Industrial Ingredients Receiving Baghouse
2502.0	Ingredient Bin #3 and #4; Super Sack Bag Dump Stations #1 and #2	2501-2	Food-Grade Ingredients Receiving Baghouse
2503.0	Food Product Bin #1; Product Bin #2	2501-4	Food-Grade Ingredients Receiving Baghouse
2504.0	Product Bin #2; Industrial Product Bin #2	2501-3	Industrial Product Receiving Baghouse
2505.0	Steam Heated Indirect Dryer and Cooler, and various pickup points-Product Bin Area, Ingredient Bin Area, Super Sack Dump and Ingredient Blender Area, Grinder and Screener Areas	2501-5	#1 Dust Collection Baghouse

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description
2506.0	Ingredient Blender, Screener #1, Extruder, Grinder Feed Bin, Grinder, and various pick up points-Packaging & Bulk Loadout Areas-Railcar and Truck	2501-6	#2 Dust Collection Baghouse

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 96-A-1028-S2
567C 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 ($PM_{2.5}$)
Emission Limit(s): 0.774 lb/hr
Authority for Requirement: DNR Construction Permit 96-A-1028-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.06 lb/hr
Authority for Requirement: DNR Construction Permit 96-A-1028-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.06 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 96-A-1028-S2
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.0 lb/hr
Authority for Requirement: DNR Construction Permit 96-A-1028-S2

Operational Limits & Requirements

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

Operating Limits

A. The differential pressure drop across each baghouse specified in Table 1: Baghouse List shall be maintained between 1 and 6 inches water column while the equipment is in operation.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across each baghouse specified in Table 1: Baghouse List. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for each baghouse specified in Table 1: Baghouse List including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Table 1: Baghouse List
Industrial Ingredients Receiving Baghouse (CE2501-1)
Food-Grade Ingredients Receiving Baghouse (CE2501-2)
Industrial Product Receiving Baghouse (CE2501-3)
Food-Grade Product Receiving Baghouse (CE2501-4)
#1 Dust Collection Baghouse (CE2501-5)
#2 Dust Collection Baghouse (CE2501-6)

Reporting & Record keeping

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

A. The owner or operator shall collect and record the pressure drop across each baghouse specified in Table 1 in inches of water, once per day. If the pressure drop across any baghouse specified in Table 1: Baghouse List falls outside the range specified in Operating Limits condition A. above, the owner or operator shall investigate the baghouse and make corrections to the baghouse. The owner or operator shall maintain a record of all corrective actions taken for each baghouse specified in Table 1: Baghouse List. This requirement shall not apply on the days that a baghouse is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of each baghouse specified in Table 1.

Authority for Requirement: DNR Construction Permit 96-A-1028-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 140.0
Stack Opening (inches, dia.): 54
Exhaust Flowrate (scfm): 60,000
Exhaust Temperature (^{o}F): 90
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 96-A-1028-S2

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 472.0

Associated Equipment

Associated Emission Unit ID Numbers: 1068.0
Emissions Control Equipment ID Number: CE 1068-1
Emissions Control Equipment Description: Packed Bed Scrubber

Emission Unit vented through this Emission Point: 1068.0
Emission Unit Description: Alcohol Prefermenters (2)
Raw Material/Fuel: Corn Mash
Rated Capacity: 69,000 gal/hr (combined)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 8.5 lb/hr; 37.2 tons/yr
Authority for Requirement: DNR Construction Permit 03-A-342-S2

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

Operating Limits

1. The equipment (as defined in 40 CFR §60.481) associated with this emission unit shall meet the standards specified in NSPS Subpart VV (40 CFR §60.480 – 40 CFR §60.489).
2. The total grind for the facility (plant number 70-01-004) is limited to 62.050 million bushels of corn per twelve (12) month rolling period.
3. The flow rate of the scrubber water in the packed bed scrubber, CE 1068-1, shall be maintained at a minimum flow rate of 30 gallons per minute.

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

1. Reporting and recordkeeping for NSPS Subpart VV shall be done per 40 CFR 60.486 and 40 CFR 60.487.
2. Record the cumulative amount of corn grind for the facility (plant number 70-01-004) on a rolling 12-month basis for each month of operation.
3. Record hourly the flow rate of the scrubber water in the packed bed scrubber, CE 1068-1.

Authority for Requirement: DNR Construction Permit 03-A-342-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 61.5
Stack Opening (inches, dia.): 24
Exhaust Flowrate (scfm): 4,800
Exhaust Temperature (^{o}F): 80
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-342-S2

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

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

Stack Testing

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed – September 12, 2021
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan
CAM Plan for EP 472.0 Packed Bed Scrubber

Background

A. Emissions Unit
Description: Alcohol Prefermenters (2)
Identification: EU 1068.0
Facility: Grain Processing Corporation
1600 Oregon Streets
Muscatine, IA 52761

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.: DNR Construction Permit 03-A-342-S2
Emission limit: VOC: 8.5 lb/hr; 37.2 tons/hr
Current Monitoring requirements:
1. Stack testing
2. Inlet water flow rate measurements
3. Acetic acid concentration in scrubber underflow

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are scrubbant flow rate and visible emissions.

Table A – Monitoring Approach

	Indicator #1
I. Indicator	Water flow rate
Measurement Approach	The water flow rate is monitored with an orifice plate and differential pressure gauge.
II. Indicator Range	An excursion is defined as a scrubber water flow rate of less than 30 gallons per minute. Excursions trigger an inspection, corrective action and a recordkeeping requirement.
III. Performance Criteria	
A. Data Representativeness	The orifice plate is installed in the scrubber water inlet line. The minimum accuracy is ± 0.5 gal/min.
B. Verification of Operational Status	NA
C. QA/QC Practices and Criteria	Weekly zero and quarterly upscale pressure check of transmitter.
D. Monitoring Frequency	Measured continuously.
E. Data Collection Procedures	Recorded once per minute.

F. Averaging Period	Hourly averages of 60 1-minute flow rates are calculated. A daily average of all hourly readings is calculated and recorded.

Emission Point ID Number: See Table: Distillation Column Vents

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Distillation Column Vents

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Table: Distillation Column Vents

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (Mgal/hr)
501.0	1082.0	No. 1 Beer Column - Vent	Ethanol	24.0
505.0		No. 1 Beer Column – Degasifier Vent	Ethanol	
502.0	1083.0	No. 2 Beer Column - Vent	Ethanol	24.0
506.0		No. 2 Beer Column – Degasifier Vent	Ethanol	
509.0		No. 2 Beer Column Reflux Vent	Ethanol	
503.0	1084.0	No. 3 Beer Column - Vent	Ethanol	24.0
507.0		No. 3 Beer Column – Degasifier Vent	Ethanol	
504.0	1085.0	No. 4 Beer Column - Vent	Ethanol	24.0
508.0		No. 4 Beer Column – Degasifier Vent	Ethanol	
510.0	1086.0	No. 1 Alcohol Column -Reflux Tank Vent	Ethanol	34.0
511.0		No. 1 Alcohol Column -Reflux Vent	Ethanol	
512.0		No. 1 Alcohol Column -Vent	Ethanol	
513.0	1087.0	No. 2 Alcohol Column -Vent	Ethanol	24.0
514.0	1088.0	No. 3 Alcohol Column -Vent	Ethanol	24.0
515.0	1089.0	No. 4 Alcohol Column -Vent	Ethanol	24.0
517.0	1091.0	No. 3 Extractive Distillation Column -Vents	Ethanol	24.0
518.0	1092.0	No. 4 Extractive Distillation Column -Vents	Ethanol	24.0
519.0	1093.0	Stripper Column -Vent	Ethanol	24.0

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 emission limits at this time.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: See Table: Beer Well Tanks

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Beer Well Tanks

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Table: Beer Well Tanks

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (gallons)
480.0	1072.0	Beer Well Tank No. 1	Fermented Corn Mash	272,590
481.0	1073.0	Beer Well Tank No. 2	Fermented Corn Mash	272,590
482.0	1074.0	Beer Well Tank No. 3	Fermented Corn Mash	272,590

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 emission limits at this time.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 475.0

Associated Equipment

Associated Emission Unit ID Numbers: 1066.0

Emission Unit vented through this Emission Point: 1066.0
Emission Unit Description: Demethylization Feed Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 4,320 gal/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

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

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

1. Determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: DNR Construction Permit 02-A-792

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 35
Stack Opening (inches, dia.): 6
Exhaust Flowrate (scfm): Displacement
Exhaust Temperature (^{o}F): 75
Discharge Style: Obstructed Vertical
Authority for Requirement: DNR Construction Permit 02-A-792

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

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 484.0

Associated Equipment

Associated Emission Unit ID Numbers: 1076.0

Emission Unit vented through this Emission Point: 1076.0
Emission Unit Description: Demethylization System Vent Condenser No.1
Raw Material/Fuel: Ethanol
Rated Capacity: 4,200 gal/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

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

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

1. Determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: DNR Construction Permit 02-A-793

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 25
Stack Opening (inches, dia.): 12 x 4
Exhaust Flowrate (scfm): Displacement
Exhaust Temperature (^{o}F): 70
Discharge Style: Obstructed Vertical
Authority for Requirement: DNR Construction Permit 02-A-793

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

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 486.0

Associated Equipment

Associated Emission Unit ID Numbers: 1078.0

Emission Unit vented through this Emission Point: 1078.0
Emission Unit Description: Anhydrous Product Vent Condenser No. 2
Raw Material/Fuel: Ethanol
Rated Capacity: 3,500 gal/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

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

1. Determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: DNR Construction Permit 02-A-795

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 29
Stack Opening (inches, dia.): 2
Exhaust Flowrate (scfm): Displacement
Exhaust Temperature (^{o}F): 75
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 02-A-795

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 487.0

Associated Equipment

Associated Emission Unit ID Numbers: 1079.0

Emission Unit vented through this Emission Point: 1079.0
Emission Unit Description: Anhydrous Vacuum Receiver Vent No. 2
Raw Material/Fuel: Ethanol
Rated Capacity: 4,200 gal/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

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

1. Determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: DNR Construction Permit 02-A-796

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 29
Stack Opening (inches, dia.): 2
Exhaust Flowrate (scfm): Displacement
Exhaust Temperature (^{o}F): 75
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 02-A-796

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 544.0 (These requirements are in effect until construction authorized by DNR Construction Permit 05-A-926-S5 is complete)

Associated Equipment

Associated Emission Unit ID Numbers: 6301.0 - 6329.0
Emissions Control Equipment ID Numbers: CE6301-1; CE6301-2
Emissions Control Equipment Description: Primary Impinjet/Packed Bed Scrubber (CE6301-1)
Secondary Packed Bed Scrubber (CE6301-2)

Emission Units vented through this Emission Point: 6301.0 - 6323.0
Emission Unit Description: Mash Fermenters No. 1 - 23
Raw Material/Fuel: Mash
Rated Capacity: 100,000 gal (each)

Emission Units vented through this Emission Point: 6324.0 - 6329.0
Emission Unit Description: Mash Fermenters No. 24 - 29
Raw Material/Fuel: Mash
Rated Capacity: 200,000 gal (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%[(1)]
Authority for Requirement: DNR Construction Permit 05-A-926-S4
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 ($PM_{2.5}$)
Emission Limit(s): 0.185 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-926-S4

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.49 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-926-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.49 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 05-A-926-S4
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.258 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 05-A-926-S4
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 8.75 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-926-S4

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

These emission units are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for *Miscellaneous Organic Chemical Manufacturing* (40 CFR Part 63, Subpart FFFF) and NESHAP *General Provisions* (40 CFR Part 63, Subpart A).

Authority for Requirement: DNR Construction Permit 05-A-926-S4
40 CFR Part 63 Subpart FFFF
567 IAC 23.1(4)"cf"
40 CFR154 Part 63 Subpart A
567 IAC 23.1(4)

Operating Limits

A. The total liquor flowrate of the Primary Packed Bed Scrubber (CE6301-1) shall be maintained at or above 6 gallons per minute.
B. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the Primary Packed Bed Scrubber (CE6301-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
D. The total liquor flowrate of the Secondary Packed Bed Scrubber (CE6301-2) shall be maintained at or above 10 gallons per minute.
E. The differential pressure drop across the Secondary Packed Bed Scrubber (CE6301-2) shall be maintained between 1 and 21 inches water column.

F. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
G. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Secondary Packed Bed scrubber (CE6301-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
H. The owner or operator shall develop an operating and maintenance plan for the Secondary Packed Bed Scrubber (CE6301-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1), in gallons per minute, at least once per day. If the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1) falls below the value specified in Operating Limits Condition A. above, the owner or operator shall investigate the Primary Packed Bed Scrubber (CE 6301-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Primary Packed Bed Scrubber (CE6301-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Primary Packed Bed Scrubber (CE6301-1).
C. The owner or operator shall collect and record the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2), in gallons per minute, continuously. If the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2) falls below the value specified in Condition 14 D., the owner or operator shall investigate the Secondary Packed Bed Scrubber (CE6301-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Secondary Packed Bed Scrubber (CE6301-2) is not in operation.
D. The owner or operator shall collect and record the pressure drop across the Secondary Packed Bed Scrubber (CE6301-2), in inches of water, continuously. If the pressure drop across the Secondary Packed Bed Scrubber (CE6301-2) falls outside the range specified in Operating Limits Condition E. above, the owner or operator shall investigate the Secondary Packed Bed Scrubber (CE6301-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Secondary Packed Bed Scrubber (CE6301-2) is not in operation.
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE 6301-2).

Authority for Requirement: DNR Construction Permit 05-A-926-S4

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 50
Stack Opening (inches, dia.): 30
Exhaust Flowrate (scfm): 6,700
Exhaust Temperature (^oF): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 05-A-926-S4

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

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

Stack Testing

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 05-A-926-S4

[(1)] After the initial performance test, performance testing for SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO_2 emission limit, the owner or operator may request to modify the performance testing frequency for SO_2.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 544.0 (These requirements are effective upon completion of construction authorized by DNR Construction Permit 05-A-926-S5)

Associated Equipment

Associated Emission Unit ID Numbers: 6324.0-6333.0
Emissions Control Equipment ID Numbers: CE6301-1; CE6301-2
Emissions Control Equipment Description: Primary Impinjet/Packed Bed Scrubber (CE6301-1)
Secondary Packed Bed Scrubber (CE6301-2)

Emission Units vented through this Emission Point: 6324.0–6329.0
Emission Unit Description: Mash Fermenters Nos. 24-29
Raw Material/Fuel: Mash
Rated Capacity: 200,000 gallons (storage) each
45,000 gallons of corn mash per hour, each

Emission Units vented through this Emission Point: 6330.0-6333.0
Emission Unit Description: Mash Fermenters No. 30-33
Raw Material/Fuel: Mash
Rated Capacity: 800,000 gallons (storage) each
90,000 gallons of corn mash per hour, 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%[(1)]
Authority for Requirement: DNR Construction Permit 05-A-926-S5
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 ($PM_{2.5}$)
Emission Limit(s): 0.185 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-926-S5

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.49 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-926-S5

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.49 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 05-A-926-S5
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.258 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 05-A-926-S5
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 16.9 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-926-S5

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

NSPS and NESHAP Applicability

These emission units are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for *Miscellaneous Organic Chemical Manufacturing* (40 CFR Part 63, Subpart FFFF) and NESHAP *General Provisions* (40 CFR Part 63, Subpart A).

Authority for Requirement: DNR Construction Permit 05-A-926-S5
40 CFR Part 63 Subpart FFFF
567 IAC 23.1(4)"cf"
40 CFR Part 63 Subpart A
567 IAC 23.1(4)

A. The owner or operator is limited to producing a maximum of 1,283 million gallons of ethanol per rolling 12-month period.
   i. The owner or operator shall record on quantity of ethanol produced on a monthly basis in gallons.
   ii. The owner or operator shall calculate and record 12-month rolling totals in gallons.
B. The total liquor flowrate of the Primary Packed Bed Scrubber (CE6301-1) shall be maintained at or above 6 gallons per minute.
   i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in

accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1), in gallons per minute, at least once per day. If the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1) falls below the value specified in Condition B., the owner or operator shall investigate the Primary Packed Bed Scrubber (CE 6301-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Primary Packed Bed Scrubber (CE6301-1) is not in operation.

C. The owner or operator shall develop an operating and maintenance plan for the Primary Packed Bed Scrubber (CE6301-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Primary Packed Bed Scrubber (CE6301-1).

D. The total liquor flowrate of the Secondary Packed Bed Scrubber (CE6301-2) shall be maintained at or above 10 gallons per minute.

i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2), in gallons per minute, continuously. If the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2) falls below the value specified in Condition D., the owner or operator shall investigate the Secondary Packed Bed Scrubber (CE6301-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Secondary Packed Bed Scrubber (CE6301-2) is not in operation.

E. The differential pressure drop across the Secondary Packed Bed Scrubber (CE6301-2) shall be maintained between 1 and 21 inches water column.

i. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Secondary Packed Bed scrubber (CE6301-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the pressure drop across the Secondary Packed Bed Scrubber (CE6301-2), in inches of water, continuously. If the pressure drop across the Secondary Packed Bed Scrubber (CE6301-2) falls outside the range specified in Condition E., the owner or operator shall investigate the Secondary Packed Bed Scrubber (CE6301-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Secondary Packed Bed Scrubber (CE6301-2) is not in operation.

F. The owner or operator shall develop an operating and maintenance plan for the Secondary Packed Bed Scrubber (CE6301-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
   i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE 6301-2).

Authority for Requirement: DNR Construction Permit 05-A-926-S5

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 50
Stack Opening (inches, dia.): 30
Exhaust Flowrate (scfm): 6,700
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 05-A-926-S5

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

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

Stack Testing

Pollutant – Opacity
Stack Test to be Completed – One-Time [(1)]
Test Method – 40 CFR 60 Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 05-A-926-S5

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed - One-Time [(1)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 05-A-926-S5

Pollutant – Particulate Matter (PM_{10}) [(1) (2)]
Stack Test to be Completed - One-Time [(1)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 05-A-926-S5

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - One-Time [1]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 05-A-926-S5

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed – Once Every 3 Years [3]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 05-A-926-S5

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed – One-Time [1]
Test Method – 40 CFR 63, Appendix A, Method 320 or
40 CFR 60, Appendix A, Method 18
Authority for Requirement – DNR Construction Permit 05-A-926-S5

[1] Compliance testing shall be conducted when the emissions units are exhausting to the atmosphere through EP544.0 at the maximum exhaust flow rate.
[2] Performance testing may be conducted for total particulate matter to demonstrate compliance with PM_{10} limit as specified in the Emission Limits section.
[3] After the initial performance test, performance testing for SO_2 shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO_2 emission limit in condition 1, the owner or operator may request to modify the performance testing frequency for SO_2

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 408.0

Associated Equipment

Associated Emission Unit ID Numbers: 1012.0

Emission Unit vented through this Emission Point: 1012.0
Emission Unit Description: Mole Sieve #1 Feed Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 12,084 gallons (maximum storage capacity)

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 emission limits at this time.

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

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

1. Record each month the throughput of the Mole Sieve #1 Feed Tank.
2. Each month calculate the VOC emissions from the Mole Sieve #1 Feed Tank. Calculate and record 12-month rolling VOC totals.
3. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart VV, 40 CFR 60.486 and 40 CFR 60.487.

Authority for Requirement: DNR Construction Permit 07-A-1168

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 20
Stack Opening (inches, dia.): 8
Exhaust Flowrate (scfm): 25
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Obstructed vertical
Authority for Requirement: DNR Construction Permit 07-A-1168

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 309.0

Associated Equipment

Associated Emission Unit ID Numbers: 1065.0

Emission Unit vented through this Emission Point: 1065.0
Emission Unit Description: Fuel Ethanol Production – Fugitive Acetaldehyde Emission (Equipment Leaks of VOC)
Raw Material/Fuel: Alcohol

Applicable Requirements

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

NSPS and NESHAP

This facility is subject to the requirements and conditions of Standards of Performance for Equipment Leaks of VOC In the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 as specified in 40 CFR Part 60 §60.480.

This facility is also subject to the requirements and conditions of NSPS Subpart A-*General Provisions.*

Authority for Requirement: 40 CFR 60 Subpart VV
567 IAC 23.1(2)"nn"
40 CFR 60 Subpart A
567 IAC 23.1(2)
567 IAC 22.108(3)

This facility is subject to 40 CFR Part 63, Subpart A – *General Provisions* (40 CFR §63.1 through 40 CFR §63.15) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) and Subpart FFFF – *Miscellaneous Organic Chemical Manufacturing* (40 CFR §63.2430 through 40 CFR §63.2550) and are also subject to the requirements of 567 IAC 23.1(4)”cf”.

Authority for Requirement: 40 CFR Part 63 Subpart FFFF
567 IAC 23.1(4)"cf"
40 CFR Part 63 Subpart A
567 IAC 23.1(4)
567 IAC 22.108(3)

Operating Limits

Work practice standards:

1. The component count shall be documented as to the number and types of components used. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The component count shall be updated as the component count varies.

Authority for Requirement: 567 IAC 22.108(3)

2. The owner/operator shall follow the applicable standards of NSPS Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.

Authority for Requirement: 567 IAC 22.108(3)

Reporting & Recordkeeping
The following records shall be maintained on site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. The owner or operator shall keep records as required in 40 CFR 60.486 and reports as required in 40 CFR 60.487.
2. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified in 40 CFR Part 60 Subpart VV- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, specifically §60.486 and §60.487.
3. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified in 40 CFR Part 60 Subpart A General Provisions §§60.1 through 60.19.

Authority for Requirement: 567 IAC 22.108(3)

4. Document the component count as to the number and types of components used. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The component count shall be updated as the component count varies.

Authority for Requirement: 567 IAC 22.108(3)

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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

Emission Point ID Number: See Table: Alcohol Storage Tanks

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Alcohol Storage Tanks

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Table: Alcohol Storage Tanks

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (gallons)
400.0	1005.0	Storage of Anhydrous Alcohol, Ethanol – Ethanol Tank 1	Ethanol	13,145
401.0	1006.0	Storage of Anhydrous Alcohol, Ethanol – Ethanol Tank 2	Ethanol	13,145
402.0	1007.0	Storage of Anhydrous Alcohol, Ethanol – Ethanol Tank 3	Ethanol	13,816
403.0	1008.0	Storage of Anhydrous Alcohol, Ethanol – Ethanol Tank 4	Ethanol	16,075
404.0	1009.0	Storage of Reject Anhydrous Alcohol, Ethanol – Dump Tank	Ethanol	16,075
405.0	1010.0	Storage of Anhydrous Alcohol, Ethanol – Ethanol Tank 6	Ethanol	16,075
406.0	1011.0	Storage of Reject Anhydrous Alcohol, Ethanol – Dump Tank	Ethanol	8,568
409.0	1014.0	Storage of Anhydrous Alcohol, Ethanol – "A" Scale Tank	Ethanol	11,374
410.0	1015.0	Storage of Anhydrous Alcohol, Ethanol – "B" Scale Tank	Ethanol	11,552
411.0	1016.0	Storage of Anhydrous Alcohol, Ethanol – "C" Scale Tank	Ethanol	11,915
413.0	1018.0	Storage of Toluene	Toluene	4,283
445.0	1050.0	Storage of Anhydrous Alcohol, Ethanol Tank 3H	Ethanol	433,959
446.0	1051.0	Storage of Anhydrous Alcohol, Ethanol Tank 4H	Ethanol	433,959
447.0	1052.0	Storage of Anhydrous Alcohol, Ethanol Tank 5H	Ethanol	433,959
448.0	1053.0	Storage of Anhydrous Alcohol, Ethanol Tank 6H	Ethanol	433,959
449.0	1054.0	Storage of Anhydrous Alcohol, Ethanol Tank 7H	Ethanol	433,959
450.0	1055.0	Storage of Anhydrous Alcohol, Ethanol Tank 8H	Ethanol	433,959
451.0	1056.0	Storage of Ethanol Tank 1C	Ethanol	272,291
452.0	1057.0	Storage of Ethanol Tank 2C	Ethanol	272,291

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (gallons)
453.0	1058.0	Storage of Ethanol Tank 3C	Ethanol	272,291
459.0	1064.0	Storage of Ethanol – 160 Proof Tank	Ethanol	32,149

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 emission limits at this time.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 407.0

Associated Equipment

Associated Emission Unit ID Numbers: 1013.0

Emission Unit vented through this Emission Point: 1013.0
Emission Unit Description: RD2 Feed Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 9,967 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

No emission limits at this time.

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

Operating Limits

A. The owner or operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.

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

A. The owner or operator shall keep records as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.

Authority for Requirement: DNR Construction Permit 07-A-432

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 18
Stack Opening (inches, dia.): 8
Exhaust Flowrate (scfm): NA - vent
Exhaust Temperature (^{o}F): 90
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 07-A-432

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 549.0

Associated Equipment

Associated Emission Unit ID Numbers: 1067.0, 1080.0
Emissions Control Equipment ID Numbers: CE 1067-1
Emissions Control Equipment Description: Packed Bed Scrubber

Emission Unit vented through this Emission Point: 1067.0
Emission Unit Description: Tank #7 Anhydrous Alcohol
Raw Material/Fuel: Ethanol
Rated Capacity: 41,873 Gallons

Emission Unit vented through this Emission Point: 1080.0
Emission Unit Description: Tank RJ2 Anhydrous Alcohol
Raw Material/Fuel: Ethanol
Rated Capacity: 41,873 Gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

No emission limits at this time.

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

NSPS and NESHAP Applicability

These emission units are subject to 40 CFR Part 60, Subpart A – *General Provisions* (40 CFR §60.1 through 40 CFR §60.19) of the New Source Performance Standards (NSPS) and Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels* (40 CFR §60.110b through 40 CFR §60.117b) and are also subject to the requirements of 567 IAC 23.1(2)”ddd”.

Authority for Requirement: DNR Construction Permit 12-A-255
40 CFR Part 60 Subpart Kb
567 IAC 23.1(2)"ddd"
40 CFR Part 60 Subpart A
567 IAC 23.1(2)

Operating Limits

A. These emission units are subject to all applicable operating limits set forth in NSPS Subparts A (40 CFR§60.1 through 40 CFR §60.19) and Kb (40 CFR §60.110b through 40 CFR §60.117b).

B. The tanks shall be designed and operated to meet the requirements for a closed vent system and control device as required in 40 CFR §60.112b.

   i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in Subpart VV [40 CFR §60.485(b)].

   ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95% or greater. If a flare is used as the control device. It shall meet the specifications described in the general control device requirements (40 CFR §60.18) of the General Provisions.

C. As required by 40 CFR 60.113b(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) shall meet the following requirements:

   a) Submit for approval by the Administrator as an attachment to the notification required by 40 CFR §60.7(a)(1) or, if the facility is exempt from 40 CFR §60.7(a)(1), as an attachment to the notification required by 40 CFR§60.7(a)(2), an operating plan containing the information listed below.

      i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

      ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

   b) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

D. The packed bed scrubber (CE 1067-1) shall use a dole valve rated at a minimum of 5 gallons per minute on the scrubber water inlet.

E. The owner or operator shall develop an operating and maintenance plan for the packed bed scrubber, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. This maintenance plan shall include annual inspection and verification of capacity of the scrubber dole valve. This operating and maintenance plan shall be kept on file at the facility.

Reporting & Record keeping

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

A. These emission units are subject to all applicable recordkeeping, notification and reporting requirements as set forth in NSPS Subparts A (40 CFR§60.1 through 40 CFR §60.19) and Kb (40 CFR §60.115b and 40 CFR §60.116b). Reporting and recordkeeping shall include keeping the following records:
   i. A copy of the operating plan.
   ii. A record of the measured values of the parameters monitored in accordance with 40 CFR §60.113b(c)(2).

B. The owner or operator shall properly operate and maintain a dole valve rated at 5 gallons per minute on the packed bed scrubber water inlet. The valve shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

C. Each day, the owner or operator shall visually inspect and record that the water supply to the packed bed scrubber is on and that water is flowing to the scrubber. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.

D. Once each month, the owner or operator shall determine and record the VOC concentration in the vent stack from the scrubber with a handheld VOC monitor. A history of VOC determinations will establish baseline VOC concentrations from this scrubber. Significant deviation from this baseline (+/- 10%) will signal operational problems with the scrubber or equipment that must be investigated and addressed.

E. The owner operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.

Authority for Requirement: DNR Construction Permit 12-A-255

<u>Emission Point Characteristics</u>

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 30
Stack Opening (inches, dia.): 6
Exhaust Flowrate (scfm): 92
Exhaust Temperature (^{o}F): 65
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 12-A-255

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 550.0

Associated Equipment

Associated Emission Unit ID Numbers: 1059.0, 1060.0
Emissions Control Equipment ID Numbers: CE 1060-1
Emissions Control Equipment Description: Varec Flare (48 MMBtu/hr maximum heat input)

Emission Unit vented through this Emission Point: 1059.0, 1060.0
Emission Unit Description: Tank 4C and Tank 5C
Raw Material/Fuel: Ethanol
Rated Capacity: 273,000 Gallons (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): No Visible Emissions[(1)]
Authority for Requirement: DNR Construction Permit 14-A-604
567 IAC 23.1(2)"ddd"

[(1)] In accordance with §60.18(b), the flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.22 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-604

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.22 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-604

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 14-A-604
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppm
Authority for Requirement: DNR Construction Permit 14-A-604
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.45 tons/yr
Authority for Requirement: DNR Construction Permit 14-A-604

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

NSPS and NESHAP Applicability

Storage Tank 5C is subject to 40 CFR Part 60, Subpart A – *General Provisions* (40 CFR §60.1 through 40 CFR §60.19) of the New Source Performance Standards and Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)* for which Construction, Reconstruction or Modification Commenced After July 23, 1984 (40 CFR §60.110b through 40 CFR §60.117b).

Authority for Requirement: DNR Construction Permit 14-A-604
40 CFR Part 60 Subpart Kb
567 IAC 23.1(2)"ddd"
40 CFR Part 60 Subpart A
567 IAC 23.1(2)

Operating Limits

A. The amount of denatured alcohol stored in each storage tank (i.e. Storage Tank 4C and Storage Tank 5C) shall not exceed 35,802,205 gallons in any rolling 12-month period. Prior to storing a different material in the storage tanks, the owner or operator shall apply for, and obtain, a new construction permit from the Iowa DNR.
B. Storage Tank 4C (EU 1059.0) and Storage Tank 5C (EU 1060.0) shall be vented to the flare at all times. In accordance with §60.18(c)(2), the flare shall be operated with a flame present at all times, as determined by the methods specified in §60.18(f).
C. In accordance with §60.112b(a)(3), Storage Tank 5C (EU 1060.0) shall be equipped with a closed vent system and control device that meets the following specifications:
   i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage tank and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).
   ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. The flare shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.
D. The owner or operator shall develop an operating and maintenance plan for the Varec flare (CE 1060-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall maintain the following monthly records for each storage tank (EU 1059.0 and EU 1060.0) covered by this permit:
   i. The amount of denatured ethanol loaded into the storage tank; and
   ii. The rolling 12-month total of the amount of liquid loaded.
B. In accordance with §60.18(f)(2), the presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of flame.
C. In accordance with §60.115b(d), after installing the closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements:
   i. A report containing the applicable measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Department as required by §60.8. This report shall be submitted within 6 months of the initial start-up date.
   ii. Records shall be kept of all periods of operation during which the flare pilot flame is absent.
   iii. Semiannual reports shall be submitted to the Department of all periods recorded in which the flare pilot flame was absent.
D. In accordance with §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of Tank 5C and an analysis showing the capacity of the tank. This record shall be kept for the life of the tank.
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Varec flare (CE 1060-1).

Authority for Requirement: DNR Construction Permit 14-A-604

<u>Emission Point Characteristics</u>
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 30
Stack Opening (inches, dia.): 8
Exhaust Flowrate (scfm): 503
Exhaust Temperature (^{o}F): 1400
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 14-A-604

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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 Numbers: See Table: Tank Farm E

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Tank Farm E
Emissions Control Equipment ID Numbers: See Table: Tank Farm E
Emissions Control Equipment Description: See Table: Tank Farm E

Table: Tank Farm E

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Volume (Gal)
491.0	1098.0	190 Day Lot Tank #1	1098-1	Packed Bed Wet Scrubber	Ethanol	51,700
	1099.0	190 Day Lot Tank #2				51,700
	1100.0	190 Day Lot Tank #3				51,700
	1101.0	190 Day Lot Tank #4				51,700
492.0	1102.0	Low Proof Feed Tank	1102-0	Internal Floating Roof	Ethanol	50,000
493.0	1103.0	High Proof Feed Tank	1103-0	Internal Floating Roof	Ethanol	100,000
494.0	1104.0	High Wines Tank	1104-0	Internal Floating Roof	Ethanol	100,000
495.0	1105.0	Low Proof Surge Tank #1	1105-1	Surface Condenser	Ethanol	946
	1106.0	Low Proof Surge Tank #2				946
	1107.0	High Proof Surge Tank				7,246

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.

Table: Tank Farm E-Emission Limits

Emission Point Number	Emission Unit Number	VOC Limit (lb/hr)	Construction Permit Number Authority for Requirement
491.0	1098.0	6.07	07-A-433
	1099.0		
	1100.0		
	1101.0		
492.0	1102.0	N/A	07-A-434
493.0	1103.0	N/A	07-A-435

Emission Point Number	Emission Unit Number	VOC Limit (lb/hr)	Construction Permit Number Authority for Requirement
494.0	1104.0	N/A	07-A-436
495.0	1105.0	0.143	07-A-437
	1106.0		
	1107.0		

Operational Limits & Requirements

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

Operating Limits

Process throughput: For Emission Point 491.0 only

1. These tanks shall be used to store only beverage alcohol.

Authority for Requirement: DNR Construction Permit 07-A-433

Work practice standards: For all Emission Points

1. The owner or operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.

Authority for Requirement: DNR Construction Permits specified in Table: Tank Farm E-Emission Limits

Reporting & Record keeping

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

For all Emission Points

1. The owner or operator shall keep records as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.

Authority for Requirement: DNR Construction Permits specified in Table: Tank Farm E-Emission Limits

For Emission Point 491.0 only

1. The owner or operator shall keep records of the type of material that is stored in these tanks.

Authority for Requirement: DNR Construction Permit 07-A-433

Emission Point Characteristics

These emission points shall conform to the conditions specified in Table: Germ Dryers-Emission Point Characteristics.

Table: Germ Dryers-Emission Point Characteristics

Emission Point Number	Emission Unit Number	Construction Permit No.	Stack Height (ft, from the ground)	Stack Opening (inches, dia.)	Exhaust Flowrate (scfm)	Exhaust Temp. (°F)	Discharge Type
491.0	1098.0	07-A-433	32	10	200	70	Vertical unobstructed
	1099.0						
	1100.0						
	1101.0						
492.0	1102.0	07-A-434	22.5	Four 6 x 19	N/A-vent	70	Horizontal
493.0	1103.0	07-A-435	29	Four 6 x 19	N/A-vent	70	Horizontal
494.0	1104.0	07-A-436	29	Four 6 x 19	N/A-vent	70	Horizontal
495.0	1105.0	07-A-437	28	7	1	80	Horizontal
	1106.0						
	1107.0						

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

Authority for Requirement: DNR Construction Permits specified in Table: Germ Dryers-Emission Point Characteristics.

Monitoring Requirements

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

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

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐
For EP 491.0 and 495.0 only.

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: 532.0

Associated Equipment

Associated Emission Unit ID Numbers: 1048.0, 1049.0
Emissions Control Equipment ID Number: CE 1048-1
Emissions Control Equipment Description: Packed Bed Wet Scrubber

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Emission Unit vented through this Emission Point: 1048.0
Emission Unit Description: "B" Tank Farm Ethanol Storage Tank 1H
Raw Material/Fuel: Ethanol
Rated Capacity: 430,000 gallons

Emission Unit vented through this Emission Point: 1049.0
Emission Unit Description: "B" Tank Farm Ethanol Storage Tank 2H
Raw Material/Fuel: Ethanol
Rated Capacity: 433,000 gallons

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.58 lb/hr; 2.5 tons/yr [(1)]
Authority for Requirement: DNR Construction Permit 03-A-343-S4

[(1)]These limits apply to the storage of fuel grade ethanol in tanks 1H and 2H

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

NSPS and NESHAP Applicability

These emission units are subject to Subpart A – *General Provisions* (40 CFR §60.1 through 40 CFR §60.19) of the New Source Performance Standards (NSPS) and Subpart Kb – for *Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels)* for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR Subpart Kb).

Authority for Requirement: DNR Construction Permit 03-A-343-S4
40 CFR Part 60 Subpart Kb
567 IAC 23.1(2)"ddd"
40 CFR Part 60 Subpart A
567 IAC 23.1(2)

Operating Limits

1. The equipment (as defined in 40 CFR §60.481) associated with these emission units shall meet the standards specified in NSPS Subpart VV (40 CFR §60.480 – 40 CFR §40.489).
2. Per 40 CFR §60.112b each tank shall be equipped with one of the following:
   a) A fixed roof in combination with an internal floating roof meeting the specifications listed 40 CFR 60.112b(1).
   b) An external floating roof meeting the specifications listed in 40 CFR 60.112b(2).
   c) A closed vent system and control device meeting the following specifications:
      (i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in Subpart VV [40 CFR §60.485(b)].
      (ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95% or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR §60.18) of the General Provisions.
   d) A system equivalent to those listed above as provided in 40 CFR §60.114b.
3. The total grind for the facility (plant number 70-01-004) is limited to 62.050 million bushels of corn per twelve (12) month rolling period.

Reporting & Record keeping

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

1. Reporting and recordkeeping for NSPS Subpart Kb shall be done per 40 CFR §60.115b.
2. Reporting and recordkeeping for NSPS Subpart VV shall be done per 40 CFR §60.486 and 40 CFR §60.487.
3. During normal daily equipment walk-through, the operator will observe the general exterior condition of the scrubber. Only if there is a problem will the operator make a note in the daily shift log.
4. Once each month, the effectiveness of the scrubber will be checked by performing the following:
   a) Water flow to the scrubber will be checked and adjusted if necessary to give roughly 0.5 – 1.0 gal/min.
   b) VOC concentration in the vent stack from the scrubber will be checked and recorded with a handheld VOC monitor. A history of VOC determinations will establish baseline VOC concentrations from the scrubber. Significant deviation from this baseline (approx +/- 10%) will signal a problem with the scrubber.
5. The owner or operator shall maintain a record of all inspections of the control equipment. The owner or operator shall document the results of the inspections and note any repairs that were the result of the inspections.

6. The owner or operator shall perform all recordkeeping that is required in the Department approved Operation and Maintenance Plan for all process equipment and control equipment covered under the construction permit.

Authority for Requirement: DNR Construction Permit 03-A-343-S4

7. Calculate and record the corn total grind on a monthly basis. Calculate and record rolling 12-month total.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 15
Stack Opening (inches, dia.): 6
Exhaust Flowrate (acfm): 16
Exhaust Temperature (^{o}F): 80
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-343-S4

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

Monitoring Requirements

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

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

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

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

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

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: See Table: Alcohol Loadout

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Alcohol Loadout

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Table: Alcohol Loadout

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (gallons)
302.0	1002.0	Alcohol Loading: Methanol Tank	Methanol	9,929
456.0	1061.0	Storage of Ethanol - Isopropyl Tank	Ethanol	12,129
457.0	1062.0	Storage of Ethanol - TBA Bulk Tank	Ethanol	19,459
458.0	1063.0	Storage of Ethanol - Denatured Tank #13	Ethanol	32,149
459.0	1064.0	Storage of Ethanol – 160 Proof Tank	Ethanol	32,149
476.0	1069.0	Ethanol Denaturant Storage Tank – Tank #1	Ethyl Acetate	2,550
477.0	1070.0	Ethanol Denaturant Storage Tank – Tank #2	Ethyl Acetate	6,316
478.0	1071.0	Ethanol Denaturant Storage Tank – Unleaded Gasoline	Unleaded Gasoline	26,438
539.0	1097.0	Ethanol Denaturant Storage Tank – #2 Unleaded Gasoline	Unleaded Gasoline	7,773
Emission Point Number	**Associated Emission Unit Number**	**Emission Unit Description**	**Raw Material**	**Rated Capacity (Mgal/hr)**
483.0	1075.0	Alcohol Tank Truck Loadout	Ethanol	7.5
520.0	1094.1	Alcohol Track 4A Rail Loadout Spout No. 1	Ethanol	1.3
521.0	1094.2	Alcohol Track 4A Rail Loadout Spout No. 2	Ethanol	1.3
522.0	1094.3	Alcohol Track 4A Rail Loadout Spout No. 3	Ethanol	1.3
523.0	1094.4	Alcohol Track 4A Rail Loadout Spout No. 4	Ethanol	1.3
524.0	1094.5	Alcohol Track 4A Rail Loadout Spout No. 5	Ethanol	1.3
525.0	1094.6	Alcohol Track 4A Rail Loadout Spout No. 6	Ethanol	1.3
526.0	1094.7	Alcohol Track 4A Rail Loadout Spout No. 7	Ethanol	1.3
533.0	1094.8	Alcohol Track 4A Rail Loadout Spout No. 8	Ethanol	2.9
534.0	1094.9	Alcohol Track 4A Rail Loadout Spout No. 9	Ethanol	2.9
535.0	1094.10	Alcohol Track 4A Rail Loadout Spout No. 10	Ethanol	2.9
527.0	1095.1	Alcohol Beverage Truck Loadout Spout (East)	Ethanol	7.5
528.0	1095.2	Alcohol Anhydrous 200 Truck Loadout Spout	Ethanol	7.5
529.0	1095.3	Alcohol 190 Proof (Heads) Truck Loadout Spout	Ethanol	7.5

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 emission limits at this time.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 301.0

Associated Equipment

Associated Emission Unit ID Number: 1116.0

Emission Unit vented through this Emission Point: 1116.0
Emission Unit Description: Ethanol Barge Loadout
Raw Material/Fuel: Alcohol
Rated Capacity: 30 Mgal/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: Volatile Organic Compounds (VOC)
Emission Limit: 39.0 ton/yr; 3.4 lbs/1000 gal transferred
Authority for Requirement: DNR Construction Permit 15-A-498

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

Operating Limits

A. The materials loaded out in this emissions unit (EU1116.0) are limited to ethanol and denatured ethanol. Prior to loading out a different material from ethanol or denatured ethanol in this emissions unit (EU1116.0), the owner or operator shall apply for, and obtain, a modified construction permit from the Department.
B. The total amount of ethanol and denatured ethanol loaded out in this emissions unit (EU1116.0) is limited to a maximum of 22.94 million gallons in any 12-month rolling period.
C. The gasoline content of denatured ethanol loaded out in the emissions unit (EU1116.0) shall not exceed 5.5% by weight.

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

A. The owner or operator shall keep a record of the type of material loaded out in the emissions unit (EU1116.0) (e.g. ethanol or denatured ethanol). These records shall include the gasoline content of the denatured ethanol by weight.
B. The owner or operator shall maintain the following monthly records for this emissions unit (EU1116.0):

i. The amount of ethanol and denatured ethanol loaded out into barges (gallons); and
ii. The rolling 12-month total of the amount of ethanol and denatured ethanol loaded out into barges (gallons).

Authority for Requirement: DNR Construction Permit 15-A-498

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10
Stack Opening (inches, dia.): *
Exhaust Temperature (^{o}F): Ambient
Exhaust Flow Rate (scfm): 67 scfm/displacement
Discharge Style: *
Authority for Requirement: DNR Construction Permit 15-A-498

*There is no stack on this emissions unit.

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

Associated Equipment

Associated Emission Unit ID Number: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins
Emissions Control Equipment ID Numbers: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins
Emissions Control Equipment Description: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

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Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity (tons/hr)	Control Equipment Number	Control Equipment Description	Construction Permit Number
182.0	3115.0	Unloading and Pneumatic Conveying of Filter Aid	Diatomaceous Earth	0.712	3115-1	Filter-Type Bin Vent	93-A-032
183.0	3112.0	Unloading and Pneumatic Conveying of Filter Aid	Diatomaceous Earth	0.712	3112-1	Filter-Type Bin Vent	93-A-033
184.0	3113.0	Unloading and Pneumatic Conveying of Filter Aid	Diatomaceous Earth	0.712	3113-1	Filter-Type Bin Vent	93-A-034
185.0	3114-0	Unloading and Pneumatic Conveying of Activated Carbon	Carbon	0.119	3114-1	Filter-Type Bin Vent	93-A-035

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

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.30 lb/hr; 1.31 tons/yr; 0.03 gr/dscf
Authority for Requirement: DNR Construction Permits specified in Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

The source shall be identified by permanent labels both in the plant and at the emission point on the roof.

Stack Height (feet): 50
Stack Diameter (inches): 12 x 12 [(1)]
Stack Exhaust Flow Rate (acfm): 1,200
Stack Temperature (°F): 65
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: DNR Construction Permits specified in Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins-Emission Limits

(1) The construction permit application states the stack is 3.5 feet in diameter. The initial Title V permit established 12 x 12 inches as the stack diameter.

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

Monitoring Requirements

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

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

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

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

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

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan 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: 66.0

Associated Equipment

Associated Emission Unit ID Numbers: 3101.0, 3101.1
Emissions Control Equipment ID Number: 3101-1
Emissions Control Equipment Description: Impingement Scrubber

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Emission Unit vented through this Emission Point: 3101.0
Emission Unit Description: Maltrin # 1 Spray Dryer
Raw Material/Fuel: Maltodextrin
Rated Capacity: 1.5 tons/hr

Emission Unit vented through this Emission Point: 3101.1
Emission Unit Description: Maltrin # 1 Spray Dryer Direct-Fired Burner
Raw Material/Fuel: Natural Gas
Rated Capacity: 6 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%[(1)]
Authority for Requirement: DNR Construction Permit 72-A-199-S2
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.872 lb/hr
Authority for Requirement: DNR Construction Permit 72-A-199-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.34 lb/hr
Authority for Requirement: DNR Construction Permit 72-A-199-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.34 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 72-A-199-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.006 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 72-A-199-S2
567 IAC 23.3(3)"e"

Operational Limits & Requirements

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

Operating Limits

A. The total flowrate of the Impingement scrubber's (CE3101-1) liquor shall be maintained at or above 175 gallons per minute.
B. The differential pressure drop across the Impingement scrubber (CE3101-1) shall be maintained between 0.1 and 6 inches of water column.
C. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and the differential pressure drop across the Impingement scrubber (CE3101-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
D. The owner or operator shall develop an operating and maintenance plan for the scrubber, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the total liquor flow rate to the Impingement scrubber (CE3101-1), in gallons per minute, at least once per day. If the liquor flow rate to the Impingement scrubber (CE3101-1) falls below the value specified in Operating Limits condition A. above, the owner or operator shall investigate the Impingement scrubber (CE3101-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Impingement scrubber (CE3101-1) is not in operation.
B. The owner or operator shall collect and record the pressure drop across the Impingement scrubber (CE3101-1), in inches of water, at least once per day. If the pressure drop across the Impingement scrubber (CE3101-1) falls outside the range specified in Operating Limits condition B. above, the owner or operator shall investigate the Impingement scrubber (CE3101-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Impingement scrubber (CE3101-1) is not in operation.
C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment and the monitoring devices.

D. The owner or operator shall maintain a record of the completion date that EP66.0 was raised from 124 ft, from the ground to 144 ft, from the ground above ground.

Authority for Requirement: DNR Construction Permit 72-A-199-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 144
Stack Diameter (inches, dia.): 36
Exhaust Flowrate (scfm): 17,650
Exhaust Temperature (^{o}F): 126
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 72-A-199-S2

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements

Stack Testing

Pollutant – Opacity
Stack Test to be Completed – Once Every 3 Calendar Years (1)
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 72-A-199-S2

Pollutant – Particulate Matter ($PM_{2.5}$) (2)
Stack Test to be Completed – Once Every 3 Calendar Years (1)
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 72-A-199-S2

Pollutant – Particulate Matter (PM_{10}) (3)
Stack Test to be Completed – Once Every 3 Calendar Years (1)
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 72-A-199-S2

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – Once Every 3 Calendar Years [1]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 72-A-199-S2

(1) After the initial performance test, performance testing for PM, PM_{10}, $PM_{2.5}$ and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM_{10}, and $PM_{2.5}$ emission limits in the Emission Limits section above, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$ and opacity.

(2) If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the $PM_{2.5}$ emission limit in the Emission Limits section above by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered $PM_{2.5}$.

(3) It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 538.0

Associated Equipment

Associated Emission Unit ID Numbers: 3120.0
Emissions Control Equipment ID Number: 3120-1
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 3120.0
Emission Unit Description: Maltrin # 1 Spray Dryer System Cooler
Raw Material/Fuel: Maltodextrin
Rated Capacity: 1.5 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% [(1)]
Authority for Requirement: DNR Construction Permit 03-A-1371-S1
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 ($PM_{2.5}$)
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1371-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.26 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1371-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.26 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 03-A-1371-S1
567 IAC 23.4(7)

Operational Limits & Requirements

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

A. Within 90 days after the permit issuance date, the owner or operator shall install, calibrate and operate equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE3120-1) as specified in Conditions B, C, and D.
   i. The owner or operator shall maintain a record of the installation date and the operation commencement date of the equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE3120-1).

B. The differential pressure drop across the Pulse Jet Baghouse (CE3120-1) shall be maintained between 1 and 8 inches water column.

C. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE3120-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

D. The owner or operator shall collect and record the pressure drop across the Pulse Jet Baghouse (CE3120-1), in inches of water, at least once per day. If the pressure drop across the Pulse Jet Baghouse (CE3120-1) falls outside the range specified in Condition B., the owner or operator shall investigate the Pulse Jet Baghouse (CE3120-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Pulse Jet Baghouse (CE3120-1) is not in operation.

E. The owner or operator shall develop an operational and maintenance plan for the Pulse Jet Baghouse (CE3120-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

F. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Pulse Jet Baghouse (CE3120-1).

Authority for Requirement: DNR Construction Permit 03-A-1371-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 97
Stack Diameter (inches, dia.): 26
Exhaust Flowrate (scfm): 6,224
Exhaust Temperature (^{o}F): 131
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-1371-S1

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

Monitoring Requirements

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$) [3]
Stack Test to be Completed – One-time [1]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 03-A-1371-S1

Pollutant – Particulate Matter (PM_{10}) [2]
Stack Test to be Completed - One-time [1]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 03-A-1371-S1

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – One-time [1]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 03-A-1371-S1

[1] The owner or the owner's authorized agent shall demonstrate compliance with the emission limitations contained in this condition within one hundred and eighty (180) days after the issuance date of this permit.
[2] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.
[3] If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring Plan
CAM Plan for EP 538.0 Fabric Filter Baghouse

I. Background

A. Emissions Unit
Description: Maltrin No. 1 Spray Dryer System Cooler
Identification: EU 3120.0
Facility: Grain Processing Corporation
1600 Oregon Street
Muscatine, IA 52761

B. Applicable Regulation, Emission Limit, and Monitoring Requirements
Regulation No.: DNR Construction Permit 03-A-1371
Particulate emission limit: PM: 1.54 lb/hr; 0.1 gr/dscf
PM_{10}: 1.16 lb/hr
Opacity emission limit: 40%
Current Monitoring requirements:
1. Stack testing
2. Daily pressure drop across baghouse

C. Control Technology
Reverse Air Baghouse operated under negative pressure

II. Monitoring Approach

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

Table A – Monitoring Approach

	Indicator #1	Indicator #2
I. Indicator	Differential pressure across baghouse	Visible Emissions
Measurement Approach	Differential pressure measured across the baghouse by a magnetic pressure gauge.	Visible emissions from baghouse exhaust while EU 3120.0 is operating.
II. Indicator Range	An excursion is defined as a differential pressure reading across the baghouse module outside the acceptable range. The acceptable range is 1 – 6 inches water. Excursions trigger an inspection, corrective action and a	An excursion is defined as any visible emission occurring. Excursions trigger an inspection, corrective action, and a recordkeeping requirement. The inspection that is triggered is a 6 minute visible emissions observation

	recordkeeping requirement. The inspection that is triggered is a 6 minute visible emissions observation	
III. Performance Criteria		
A. Data Representativeness	The differential pressure is measured across the baghouse.	Visible emissions observations are made at the emission point and on the external baghouse unit, system ductwork and associated components.
B. Verification of Operational Status	The pressure gauge will be calibrated, operated, and maintained according to the manufacturer's specifications.	Not applicable.
C. QA/QC Practices and Criteria	Pressure gauges will be calibrated, operated, and maintained according to the manufacturer's specifications.	The observer will be trained by Grain Processing Corporation to detect visible emissions.
D. Monitoring Frequency	The differential pressure will be inspected a minimum of once per day when the baghouse is operating.	No visible emissions (NVE) observations are made at the emission point on a weekly basis.
E. Data Collection Procedures	Results of baghouse differential pressure checks will be recorded. These forms will be kept a minimum of 5 years.	Records shall be maintained for a minimum of 5 years.

Emission Point ID Numbers: 132.1, 132.2

Associated Equipment

Associated Emission Unit ID Numbers: 3111.0, 3111.1
Emissions Control Equipment ID Number: 3111-1, 3111-2
Emissions Control Equipment Description: Venturi Scrubbers

Emission Unit vented through these Emission Points: 3111.0
Emission Unit Description: Maltrin # 3 Spray Dryer with Product Recovery Cyclones
Raw Material/Fuel: Starch
Rated Capacity: 3.13 tons/hr, dry solids basis

Emission Unit vented through these Emission Points: 3111.1
Emission Unit Description: Maltrin # 3 Spray Dryer Direct-Fired Burner
Raw Material/Fuel: Natural Gas
Rated Capacity: 18 MMBtu/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each of these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6
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 ($PM_{2.5}$)
Emission Limit(s): 0.90 lb/hr
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.40 lb/hr
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 2.40 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6
567 IAC 23.4(7)

Pollutant: Particulate Matter (PM) –State
Emission Limit(s): 0.03 gr/dscf (LAER limits)
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6
567 IAC 31.20(1)"d"

Combined Limit for EP 132.1 and EP 132.2

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.011 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6
567 IAC 23.3(3)"e"

Operating Requirements and Associated Recordkeeping

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

A. Within 90-days after permit issuance, the owner or operator shall install, calibrate and operate equipment to monitor differential pressure drop across Venturi Scrubber (CE3111-1) and Venturi Scrubber (CE3111-2) as specified in conditions C and E below.
   i. The owner or operator shall maintain a record of installation date and operation commencement date of equipment to monitor differential pressure drop across Venturi Scrubber (CE3111-1) and Venturi Scrubber (CE3111-2).
B. The total flowrate of the Venturi Scrubber (CE3111-1) liquor shall be maintained at or above 148 gallons per minute.
   i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to Venturi Scrubber (CE3111-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
   ii. The owner or operator shall collect and record the total liquor flow rate to Venturi Scrubber (CE3111-1), in gallons per minute, at least once per day. If the liquor flow rate to Venturi Scrubber (CE3111-1) falls below the value specified in Condition A above, the owner or operator shall investigate Venturi Scrubber (CE3111-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Venturi Scrubber (CE3111-1) is not in operation.
C. The differential pressure drop across the Venturi Scrubber (CE3111-1) shall be maintained between 6 and 17 inches of water column.
   i. The owner or operator shall properly operate and maintain equipment to monitor differential pressure drop across the Impingement Venturi Scrubber (CE3111-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
   ii. The owner or operator shall collect and record the pressure drop across Venturi

Scrubber (CE3111-1), in inches of water, at least once per day. If the pressure drop across Venturi Scrubber (CE3111-1) falls outside the range specified in Condition B. above, the owner or operator shall investigate Venturi Scrubber (CE3111-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Venturi Scrubber (CE3111-1) is not in operation.

D. The total flowrate of the Venturi Scrubber (CE3111-2) liquor shall be maintained at or above 154 gallons per minute.

iii. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to Venturi Scrubber (CE3111-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

iv. The owner or operator shall collect and record the total liquor flow rate to Venturi Scrubber (CE3111-2), in gallons per minute, at least once per day. If the liquor flow rate to Venturi Scrubber (CE3111-2) falls below the value specified in Condition C above, the owner or operator shall investigate Venturi Scrubber (CE3111-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Venturi Scrubber (CE3111-2) is not in operation.

E. The differential pressure drop across the Venturi Scrubber (CE3111-2) shall be maintained between 6 and 17 inches of water column.

i. The owner or operator shall properly operate and maintain equipment to monitor differential pressure drop across the Impingement Venturi Scrubber (CE3111-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the pressure drop across Venturi Scrubber (CE3111-2), in inches of water, at least once per day. If the pressure drop across Venturi Scrubber (CE3111-2) falls outside the range specified in Condition D above, the owner or operator shall investigate Venturi Scrubber (CE3111-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Venturi Scrubber (CE3111-2) is not in operation.

F. The owner or operator shall develop an operating and maintenance plan for Venturi Scrubber (CE3111-1) and Venturi Scrubber (CE3111-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Venturi Scrubber (CE3111-1) and the monitoring devices.

ii. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Venturi Scrubber (CE3111-2) and the monitoring devices.

G. The owner or operator shall maintain Product Recovery Cyclones in manner to ensure proper operation.

i. The owner or operator shall maintain a record of all inspections and maintenance and

any action resulting from the inspection and maintenance of the Product Recovery Cyclones.

Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 150
Stack Diameter (inches, dia.): 42
Exhaust Flowrate (scfm): 23,000 (EP132.1); 24,950 (EP132.2)
Exhaust Temperature (^oF): 125
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 80-A-149-S6, 80-A-150-S6

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$) [(2)]
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permits 80-A-149-S6, 80-A-150-S6

Pollutant – Particulate Matter (PM_{10}) [(3)]
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permits 80-A-149-S6, 80-A-150-S6

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – Once Every 3 Calendar Years [(1)]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permits 80-A-149-S6, 80-A-150-S6

[(1)] Performance testing for PM, PM_{10}, and $PM_{2.5}$ shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM_{10}, and $PM_{2.5}$ emission limits in the Emission Limits section above, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$ and opacity.

(2) If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the $PM_{2.5}$ limit as specified in the Emission Limits section above by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered $PM_{2.5}$.

(3) It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: 135.0, 136.0

Associated Equipment

Associated Emission Unit ID Numbers: 3110.0, 3110.1
Emissions Control Equipment ID Number: 3110-1, 3110-3, 3110-2
Emissions Control Equipment Description: EP 135.0: Packed Bed Scrubber (CE3110-1);
EP 136.0: Baghouse (CE3110-3), Packed Bed Scrubber (CE 3110-2)

Emission Unit vented through these Emission Points: 3110.0
Emission Unit Description: Maltrin # 4 Spray Dryer with Product Recovery Cyclones
Raw Material/Fuel: Starch
Rated Capacity: 5.55 tons/hr, dried solids basis

Emission Unit vented through these Emission Points: 3110.1
Emission Unit Description: Maltrin # 4 Spray Dryer Direct-Low-NOx Line Burner
Raw Material/Fuel: Natural Gas
Rated Capacity: 28.8 MMBtu/hr

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.

Emission Limits for EP 135.0 and EP 136.0

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4
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) - State
Emission Limit(s): 0.03 gr/dscf (LAER limit)
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4
567 IAC 31.20(1)"d"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 0.04 lb/MMBtu [3]
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 4.7 $ppm_{v,d}$ [3]
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 0.074 lb/MMBtu [3]
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4

[3] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Emission Limits for EP 135.0 Only

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.80 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-031-S3

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.12 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-031-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.12 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 85-A-031-S4
567 IAC 23.4(7)

Emission Limits for EP 136.0 Only

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 1.0 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-032-S4

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 3.26 lb/hr
Authority for Requirement: DNR Construction Permit 85-A-032-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.26 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 85-A-032-S4
567 IAC 23.4(7)

Combined Limit for EP135.0 and EP136.0

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.017 lb/hr (RACT limit)
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4
567 IAC 23.3(3)"e"

Operating Requirements and Associated Recordkeeping

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

A. The total flowrate for Packed Bed Scrubber (CE3110-1) liquor shall be maintained at or above 606 gallons per minute.
   i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to Packed Bed Scrubber (CE3110-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
   ii. The owner or operator shall collect and record the total liquor flow rate to Packed Bed Scrubber (CE3110-1), in gallons per minute, at least once per day. If the liquor flow rate to either Packed Bed Scrubbers (CE3110-1) falls below the value specified in Condition A, the owner or operator shall investigate Packed Bed Scrubbers (CE3110-1) and make corrections to the scrubber. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubbers (CE3110-1) are not in operation.

B. The total flowrate for Packed Bed Scrubber (CE3110-2) liquor shall be maintained at or above 577 gallons per minute.
   iii. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to Packed Bed Scrubber (CE3110-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
   iv. The owner or operator shall collect and record the total liquor flow rate to each Packed Bed Scrubber (CE3110-2), in gallons per minute, at least once per day. If the liquor flow rate to either Packed Bed Scrubbers (CE3110-2) falls below the value specified in Condition 5B, the owner or operator shall investigate Packed Bed Scrubbers (CE3110-2) and make corrections to the scrubber. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubbers (CE3110-2) are not in operation.

C. The differential pressure drop across each Packed Bed Scrubber (CE3110-1 and CE3110-2) shall be maintained between 0.3 and 5 inches of water column.
   i. The owner or operator shall properly operate and maintain equipment to monitor differential pressure drop across each Packed Bed Scrubber (CE3110-1 and CE3110-2). The monitoring devices and any recorders shall be installed, calibrated, operated

and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the pressure drop across each Packed Bed Scrubber (CE3110-1 and CE3110-2), in inches of water, at least once per day. If the pressure drop across either Packed Bed Scrubbers (CE3110-1 and CE3110-2) falls outside the range specified in Condition 5C., the owner or operator shall investigate Packed Bed Scrubbers (CE3110-1 and CE3110-2) and make corrections to the scrubbers. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubbers (CE3110-1 and CE3110-2) are not in operation.

D. The owner or operator shall develop an operating and maintenance plan for each Packed Bed Scrubber (CE3110-1 and CE3110-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

iii. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Packed Bed Scrubber (CE3110-1) and the monitoring devices.

iv. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Packed Bed Scrubber (CE3110-2) and the monitoring devices.

E. The differential pressure drop across Baghouse (CE3110-3) shall be maintained between 1 and 6 inches of water column.

i. The owner or operator shall properly operate and maintain equipment to monitor differential pressure drop across Baghouse (CE3110-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the pressure drop across Baghouse (CE3110-3), in inches of water, at least once per day. If the pressure drop across Baghouse (CE3110-3) falls outside the range specified in Condition E, the owner or operator shall investigate Baghouse (CE3110-3) and make corrections to the baghouse. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE3110-3) are not in operation.

F. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE3110-3), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

ii. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE3110-3).

G. The owner or operator shall maintain the Product Recovery Cyclones in manner to ensure proper operation.

i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.

H. The owner or operator shall install and commence operation of a Low-NOx Line Burner (EU3110.1) by December 31, 2016.

i. The owner or operator shall maintain a record of installation date and operation

commencement date of low-NOx Line Burner (EU3110.1).

I. The owner or operator shall tune Low-NOx Line Burner (EU3110.1) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
   - Inspect the burner-Clean and replace any components, as necessary
   - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
   - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
   - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
   - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

J. The owner or operator shall maintain record on annual basis of the following:
   - The completion date of Low-NOx Line Burner (EU3110.1) tuning as specified in Condition I above ,
   - Low-NOx Line Burner (EU3110.1) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

K. The owner or operator shall develop an operating and maintenance plan for the Low-NOx Line Burner (EU3110.1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
   i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Low-NOx Line Burner (EU3110.1).

Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 144
Stack Diameter (inches, dia.): 42
Exhaust Flowrate (scfm): 26,942 (EP135.0); 25,272 (EP136.0)
Exhaust Temperature (^{o}F): 125
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 85-A-031-S4, 85-A-032-S4

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$) [1]
Stack Test to be Completed – Once Every 3 Calendar Years [3]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant – Particulate Matter (PM_{10}) [2]
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant – Nitrogen Oxides (NO_x)
Stack Test to be Completed – One-Time [4]
Test Method – 40 CFR 60, Appendix A, Method 7E
Authority for Requirement – DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed - One-Time [4]
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – DNR Construction Permits 85-A-031-S4, 85-A-032-S4

Pollutant – Carbon Monoxide (CO)
Stack Test to be Completed – One-Time [4]
Test Method – 40 CFR 60, Appendix A, Method 10
Authority for Requirement – DNR Construction Permits 85-A-031-S4, 85-A-032-S4

[1] If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the $PM_{2.5}$ limit by using methods specified in 40 CFR Part 60, Appendix A Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered $PM_{2.5}$.
[2] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.
[3] After the initial performance test, performance testing for PM, PM_{10}, $PM_{2.5}$, and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that

demonstrate compliance with the PM, PM_{10}, and $PM_{2.5}$ emission limits in the Emission Limits section above, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$ and opacity.
(4) Within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the Low-NOx Line Burner (EU3110.1).

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: 310.0

Associated Equipment

Associated Emission Unit ID Numbers: 3107.0, 3107.1
Emissions Control Equipment ID Number: 3107-1, 3107-2, 3107-3, 3107-4
Emissions Control Equipment Description: Packed Bed Scrubbers (CE3107-1, CE3107-2),
Product Collection Cyclones and Baghouse (3107-3)
Wet Electrostatic Precipitator (CE3107-4)

Emission Unit vented through this Emission Point: 3107.0
Emission Unit Description: No. 5 Maltrin Spray Dryer, No. 5 Maltrin Spray Dryer
Raw Material/Fuel: Starch
Rated Capacity: 7.5 tons/hr, dry solid basis

Emission Unit vented through this Emission Point: 3107.1
Emission Unit Description: Maltrin No. 5 Spray Dryer Direct-Low-NOx Line Burner
Raw Material/Fuel: Natural Gas
Rated Capacity: 32 MMBtu/hr

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.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 90-A-309-S2
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 ($PM_{2.5}$)
Emission Limit(s): 1.63 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-309-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.20 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-309-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.20 lb/hr; 0.1 gr./dscf

Authority for Requirement: DNR Construction Permit 90-A-309-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.06 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 90-A-309-S2
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 6.9 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 90-A-309-S2

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Operational Limits & Requirements

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

Operating Limits

A. No. 5 Maltrin Spray Dryer (EU3107.0) is limited to a maximim maltrin feed rate of 7.5 tons per hour on dry solids basis.
B. The Packed Bed Scrubber (CE3107-1) total liquor flowrate shall be maintained at or above 600 gallons per minute.
C. The pressure drop across Packed Bed Scrubber (CE3107-1) shall be maintained between 1 to 8 inches of water column.
D. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and differential pressure drop across the Packed Bed Scrubber (CE3107-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
E. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE3107-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
F. The Packed Bed Scrubber (CE3107-2) total liquor flowrate shall be maintained at or above 600 gallons per minute.
G. The pressure drop across Packed Bed Scrubber (CE3107-2) shall be maintained between 1 to 8 inches of water column.
H. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and differential pressure drop across the Packed Bed Scrubber (CE3107-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
I. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE3107-2) including a preventative maintenance schedule that is consistent with

the manufacturer's instructions for routine and long-term maintenance.

J. The differential pressure drop across Baghouse (CE3107-3) shall be maintained between 0.1 and 6 inches water column.
K. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE3107-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
L. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE3107-3) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
M. The Wet Electrostatic Precipitator (CE3107-4) secondary voltage shall be maintained at or above 45 kV based on 10 minute average while the equipment is in operation.
N. The owner or operator shall properly operate and maintain equipment to monitor the secondary voltage of Wet Electrostatic Precipitator (CE3107-4). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
O. The owner or operator shall develop an operating and maintenance plan for the Wet Electrostatic Precipitator (CE3107-4) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. Record the Maltrin feed rate to No. 5 Maltrin Spray Dryer (EU3107.0) in tons for each hour of operation. This requirement shall not apply when No. 5 Maltrin Spray Dryer (EU3107.0) is not in opration.
B. The owner or operator shall collect and record the total liquor flow rate to Packed Bed Scrubber (CE3107-1), in gallons per minute on a daily basis. If the total liquor flow rate to Packed Bed Scrubber (CE3107-1) falls below the value specified in the Operating Limits conditions above, the owner or operator shall investigate Packed Bed Scrubber (CE3107-1) and make corrections to Packed Bed Scrubber (CE3107-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE3107-1) is not in operation.
C. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE3107-1), in inches of water, on a daily basis. If the pressure drop across Packed Bed Scrubber (CE3107-1) falls outside the range specified in the Operating Limits condition above, the owner or operator shall investigate Packed Bed Scrubber (CE3107-1) and make corrections to Packed Bed Scrubber (CE3107-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE3107-1) is not in operation.
D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE3107-

1).

E. The owner or operator shall collect and record the total liquor flow rate to Packed Bed Scrubber (CE3107-2), in gallons per minute on a daily basis. If the total liquor flow rate to Packed Bed Scrubber (CE3107-2) falls below the value specified in the Operating Limits condition above, the owner or operator shall investigate Packed Bed Scrubber (CE3107-2) and make corrections to Packed Bed Scrubber (CE3107-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE3107-2) is not in operation.

F. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE3107-2), in inches of water, on a daily basis. If the pressure drop across Packed Bed Scrubber (CE3107-2) falls outside the range specified in the Operating Limits condition above, the owner or operator shall investigate Packed Bed Scrubber (CE3107-2) and make corrections to Packed Bed Scrubber (CE3107-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE3107-2) is not in operation.

G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE3107-2).

H. The owner or operator shall collect and record the pressure drop across the Baghouse (CE3107-3), in inches of water, on a daily basis. If the pressure drop across Baghouse (CE3107-3) falls outside the range specified in the Operating Limits condition above, the owner or operator shall investigate Baghouse (CE3107-3) and make corrections to Baghouse (CE3107-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE3107-3) is not in operation.

I. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE3107-3).

J. The owner or operator shall collect and record the secondary voltage of Wet Electrostatic Precipitator (CE3107-4), in kV on a continuous basis. If the secondary voltage of Wet Electrostatic Precipitator (CE3107-4) falls below the value specified in the Operating Limits condition above, the owner or operator shall investigate Wet Electrostatic Precipitator (CE3107-4) and make corrections to Wet Electrostatic Precipitator (CE3107-4). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Wet Electrostatic Precipitator (CE3107-4) is not in operation.

K. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Wet Electrostatic Precipitator (CE3107-4).

Authority for Requirement: DNR Construction Permit 90-A-309-S2

<u>Emission Point Characteristics</u>

These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 178
Stack Diameter (inches, dia.): 81
Exhaust Flowrate (scfm): 77,000
Exhaust Temperature (^{o}F): 125

Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-309-S2

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements

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: 186.0, 187.0

Associated Equipment

Associated Emission Unit ID Numbers: 3116.0, 3116.1
Emissions Control Equipment ID Number: 3116-1, 3116-2, 3116-3
Emissions Control Equipment Description: EP 186.0: Packed Bed Scrubber (CE3116-1);
EP 187.0: Product Recovery Baghouse (CE3116-3),
Packed Bed Scrubber (CE3116-2)

Emission Unit vented through these Emission Points: 3116.0
Emission Unit Description: Maltrin # 6 Spray Dryer with Product Recovery Cyclones
Raw Material/Fuel: Starch
Rated Capacity: 9.84 tons/hr, dry solids basis

Emission Unit vented through these Emission Points: 3116.1
Emission Unit Description: Maltrin # 6 Spray Dryer Direct-Fired Burner
Raw Material/Fuel: Natural Gas
Rated Capacity: 44 MMBtu/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each of these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.663 lb/hr
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.76 lb/hr
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.76 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.2 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Combined Emission Limit for EP 186.0 and EP 187.0

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.027 lb/hr (RACT limit)
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2
567 IAC 23.3(3)"e"

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

A. The total flowrate for Packed Bed Scrubber (CE3116-1) liquor shall be maintained at or above 1141 gallons per minute.
   i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to Packed Bed Scrubber (CE3116-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
   ii. The owner or operator shall collect and record the total liquor flow rate to each Packed Bed Scrubber (CE3116-1), in gallons per minute, at least once per day. If the liquor flow rate to either Packed Bed Scrubber (CE3116-1) falls below the value specified in Condition A, the owner or operator shall investigate Packed Bed Scrubber (CE3116-1) and make corrections to the scrubber. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE31116-1) are not in operation.
B. The total flowrate for Packed Bed Scrubber (CE3116-2) liquor shall be maintained at or

above 1169 gallons per minute.

i. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to each Packed Bed Scrubber (CE3116-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the total liquor flow rate to Packed Bed Scrubber (CE3116-2), in gallons per minute, at least once per day. If the liquor flow rate to Packed Bed Scrubber (CE3116-2) falls below the value specified in Condition B, the owner or operator shall investigate Packed Bed Scrubber (CE3116-2) and make corrections to the scrubber. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3116-2) are not in operation.

C. The differential pressure drop across each Packed Bed Scrubber (CE3116-1 and CE3116-2) shall be maintained between 1 and 8 inches of water column.

i. The owner or operator shall properly operate and maintain equipment to monitor differential pressure drop across each Packed Bed Scrubber (CE3116-1 and CE3116-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the pressure drop across each Packed Bed Scrubber (CE3116-1 and CE3116-2), in inches of water, at least once per day. If the pressure drop across either Packed Bed Scrubbers (CE3116-1 and CE3116-2) falls outside the range specified in Condition C., the owner or operator shall investigate Packed Bed Scrubbers (CE3116-1 and CE3116-2) and make corrections to the scrubbers. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubbers (CE3116-1 and CE3116-2) are not in operation.

D. The owner or operator shall develop an operating and maintenance plan for each Packed Bed Scrubber (CE3116-1 and CE3116-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Packed Bed Scrubber (CE3116-1) and the monitoring devices.

ii. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Packed Bed Scrubber (CE3116-2) and the monitoring devices.

E. The differential pressure drop across Baghouse (CE3116-3) shall be maintained between 0.25 and 6 inches of water column.

i. The owner or operator shall properly operate and maintain equipment to monitor differential pressure drop across Baghouse (CE3116-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

ii. The owner or operator shall collect and record the pressure drop across Baghouse (CE3116-3), in inches of water, at least once per day. If the pressure drop across

Baghouse (CE3116-3) falls outside the range specified in Condition E. the owner or operator shall investigate Baghouse (CE3116-3) and make corrections to the baghouse. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE3116-3) are not in operation.

F. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE3116-3), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
   i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE3116-3).

G. The owner or operator shall maintain Product Recovery Cyclones in manner to ensure proper operation.
   i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.

H. The owner or operator shall tune burner (EU3116.1) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
   - Inspect the burner-Clean and replace any components, as necessary
   - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer’s specifications, if available.
   - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
   - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer’s specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
   - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

I. The owner or operator shall maintain record on annual basis of the following:
   - The completion date of burner (EU3116.1) tuning as specified in condition H,
   - Burner (EU3116.1) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

J. The owner or operator shall develop an operating and maintenance plan for the burner (EU3116.1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
   i. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of burner (EU3116.1).

Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 137
Stack Diameter (inches, dia.): 72
Exhaust Flowrate (scfm): 49,267
Exhaust Temperature (^oF): 117
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 94-A-055-S2, 94-A-061-S2

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$) [(1)]
Stack Test to be Completed – Once Every 3 Calendar Years [(3)]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permits 94-A-055-S2, 94-A-061-S2

Pollutant – Particulate Matter (PM_{10}) [(2)]
Stack Test to be Completed - Once Every 3 Calendar Years [(3)]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permits 94-A-055-S2, 94-A-061-S2

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - Once Every 3 Calendar Years [(3)]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permits 94-A-055-S2, 94-A-061-S2

[(1)] If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the $PM_{2.5}$ limit as specified in the Emission Limits section by using methods specified in 40 CFR Part 60, Appendix A Method 5 and s40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered $PM_{2.5}$.
[(2)] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.

(3) After the initial performance test, performance testing for PM, PM_{10}, $PM_{2.5}$, and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM_{10}, and $PM_{2.5}$ emission limits in the Emission Limits section above, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$ and opacity.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: MALT14 (Vents Inside Building)

Associated Equipment

Associated Emission Unit ID Numbers: 3123.1, 3123.2, 3123.3, 3123.4, 3123.0

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Maximum Rated Capacity (lbs/hr)	Control Equipment Number	Control Equipment Description
MALT14	3123.1	Maltrin Storage Bin #1	Maltin	21,000	CE3123-1	Bin Vent Filter #1
	3123.2	Maltrin Storage Bin #2			CE3123-2	Bin Vent Filter #2
	3123.3	Maltrin Storage Bin #3			CE3123-3	Bin Vent Filter #3
	3123.4	Maltrin Storage Bin #4			CE3123-4	Bin Vent Filter #4
	3123.0	Maltrin Pneumatic Transport from Spray Dryer #3 and #5			CE3123-0	Pulse Jet Baghouse (Kice Receiving Bhse.)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 16-A-032
567 IAC 23.3(2)"d"

[(2)] An exceedance of the indicator opacity of no visible emissions from the building that houses these emission units will require the owner or operator to promptly investigate the emission units and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.04 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-032

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.089 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-032

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.089 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-032
567 IAC 23.4(7)

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The owner or operator shall check for visible emissions from each of the control equipment specified in Table 1 twice per day at a time when the emission units are in operation. The observations shall be done at least 8 hours apart. The owner or operator shall record the date and time of the observation and the presence or absence of visible emissions. If the owner or operator observes visible emissions from any of the control equipment specified in Table 1, the owner or operator shall investigate the emission units, control equipment or operations associated with the emission units and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the control equipment specified in Table 1 is not in operation.
B. The owner or operator shall develop an operating and maintenance plan for the control equipment specified in Table 1, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment specified in Table 1.

Table 1: Control Equipment List
Bin Vent Filter #1 (CE3123-1)
Bin Vent Filter #2 (CE3123-2)
Bin Vent Filter #3 (CE3123-3)
Bin Vent Filter #4 (CE3123-4)
Pulse Jet Baghouse (Kice Receiving Baghouse) (CE3123-0)

Authority for Requirement: DNR Construction Permit 16-A-032

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: MALT58 (Vents Inside Building)

Associated Equipment

Associated Emission Unit ID Numbers: 3123.5, 3123.6, 3123.7, 3123.8

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Maximum Rated Capacity (lbs/hr)	Control Equipment Number	Control Equipment Description
MALT58	3123.5	Maltrin Storage Bin #5	Maltin	31,000	CE3123-5	Bin Vent Filter #5
	3123.6	Maltrin Storage Bin #6			CE3123-6	Bin Vent Filter #6
	3123.7	Maltrin Storage Bin #7			CE3123-7	Bin Vent Filter #7
	3123.8	Maltrin Storage Bin #8			CE3123-8	Bin Vent Filter #8

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permit 16-A-033
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.005 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-033

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.01 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-033

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-033
567 IAC 23.4(7)

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The owner or operator shall develop an operating and maintenance plan for the #5 Binfilter (CE3123-5), #6 Binfilter (CE3123-6), #7 Binfilter (CE3123-7), and #8 Binfilter (CE3123-8), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the #5 Binfilter (CE3123-5), #6 Binfilter (CE3123-6), #7 Binfilter (CE3123-7), and #8 Binfilter (CE3123-8).

Authority for Requirement: DNR Construction Permit 16-A-033

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 175.0

Associated Equipment

Associated Emission Unit ID Numbers: 3108.0
Emissions Control Equipment ID Number: 3108-1
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 3108.0
Emission Unit Description: Maltrin® Product Silo Receiver
Raw Material/Fuel: Maltodextrin
Rated Capacity: 11.5 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% [(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.035 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-069-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 91-A-069-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.0 lb/hr; 0.1 gr/dscf tons/yr
Authority for Requirement: DNR Construction Permit 91-A-069-S2

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

A. Within 90 days after the permit issuance date, the owner or operator shall install, calibrate

and operate equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE3108-1) as specified in Conditions B, C, and D.

i. The owner or operator shall maintain a record of the installation date and the operation commencement date of the equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE3108-1).

B. The differential pressure drop across the Pulse Jet Baghouse (CE3108-1) shall be maintained between 1 and 6 inches water column.

C. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE3108-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

D. The owner or operator shall collect and record the pressure drop across the Pulse Jet Baghouse (CE3108-1), in inches of water, at least once per day. If the pressure drop across the Pulse Jet Baghouse (CE3108-1) falls outside the range specified in Condition B., the owner or operator shall investigate the Pulse Jet Baghouse (CE3108-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Pulse Jet Baghouse (CE3108-1) is not in operation.

E. The owner or operator shall develop an operating and maintenance plan for the Pulse Jet Baghouse (CE3108-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routing and long-term maintenance.

F. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Pulse Jet Baghouse (CE3108-1).

Authority for Requirement: DNR Construction Permit 91-A-069-S2

<u>Emission Point Characteristics</u>

These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 162
Stack Diameter (inches, dia.): 12
Exhaust Flowrate (scfm): 1,115
Exhaust Temperature (^{o}F): 75
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 91-A-069-S2

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

Monitoring Requirements

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$) [3]
Stack Test to be Completed – One-time [1]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 91-A-069-S2

Pollutant – Particulate Matter (PM_{10}) [2]
Stack Test to be Completed - One-time [1]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 91-A-069-S2

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – One-time [1]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 91-A-069-S2

[1] The owner or the owner's authorized agent shall demonstrate compliance with the emission limitations contained in this condition within one hundred and eighty (180) days after the issuance date of this permit.
[2] It is acceptable to test for PM and to assume that all PM emissions are PM_{10} emissions.
[3] If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 157.0

Associated Equipment

Associated Emission Unit ID Numbers: 3107A
Emissions Control Equipment ID Number: 3107A-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 3107A
Emission Unit Description: Maltodextrin Bagger
Raw Material/Fuel: Maltodextrin
Rated Capacity: 60.0 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: DNR Construction Permit 89-A-162-S
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 89-A-162-S
567 IAC 23.4(7)

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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)

Emissions Point ID Number: 176.0

Associated Equipment

Associated Emission Unit ID Numbers: 3109.0
Emissions Control Equipment ID Number: 3109-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 3109.0
Emission Unit Description: Maltrin® Nuisance Dust Collector
Raw Material/Fuel: Maltodextrin
Rated Capacity: 11.5 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%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.09 lb/hr; 0.4 tons/yr
Authority for Requirement: DNR Construction Permit 91-A-070

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0 .1 lb/hr; 0.44 tons/yr
Authority for Requirement: DNR Construction Permit 91-A-070

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 195.0

Associated Equipment

Associated Emission Unit ID Numbers: 1262.0
Emissions Control Equipment ID Number: 1262-1
Emissions Control Equipment Description: Fabric Filter Baghouse

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Emission Unit vented through this Emission Point: 1262.0
Emission Unit Description: Dryer House 4-Spent Germ Receiving
Raw Material/Fuel: Dry Germ
Rated Capacity: 8.0 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%[(1)]
Authority for Requirement: DNR Construction Permit 09-A-482-S2
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 ($PM_{2.5}$)
Emission Limit(s): 0.028 lb/hr
Authority for Requirement: DNR Construction Permit 09-A-482-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 09-A-482-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.10 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 09-A-482-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.012 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 09-A-482-S2
567 IAC 23.3(3)"e"

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

Operating Limits

A. The baghouse's (CE1262-1) differential pressure drop shall be maintained between 0.1 and 4 inches water column.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the baghouse (CE1262-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the baghouse (CE1262-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1262-1), in inches of water, at least once per day. If the pressure drop across the baghouse (CE1262-1) falls outside the range specified in Operating Limits condition A. above, the owner or operator shall investigate the baghouse (CE1262-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1262-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 09-A-482-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 66.5
Stack Opening (inches, dia.): 12
Exhaust Flowrate (scfm): 1,200
Exhaust Temperature (^{o}F): 120
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 09-A-482-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may

vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 546.0

Associated Equipment

Associated Emission Unit ID Numbers: 1264.0

Emission Unit vented through this Emission Point: 1264.0
Emission Unit Description: #1 Alpha Laval Centrifuge in Dryer House 4
Raw Material/Fuel: Whole Stillage
Rated Capacity: 500 gal/min

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permit 11-A-338-S1
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 ($PM_{2.5}$)
Emission Limit(s): 0.0003 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-338-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.001 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-338-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.10 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 11-A-338-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.0034 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 11-A-338-S1
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 5.72 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-338-S1

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

Operating Limits

A. The #4 Sharples shall be permanently shutdown no later than six months after the start-up of the DH4, #1 Alpha Laval.

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

A. Maintain a record of the date the DH4, #3 Alpha Laval starts operations and the date the #4 Sharples ceases operation.

Authority for Requirement: DNR Construction Permit 11-A-338-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 25
Stack Opening (inches, dia.): 6
Exhaust Flowrate (scfm): [(1)]
Exhaust Temperature (^{o}F): 92
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-338-S1

[(1)] Velocity pressure below detection level of 0.005 inches of water column. Stack modeled with exit velocity of 0.001 m/s.

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

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 551.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: West Thin Stillage Tank and West C-400 Thrus Tank

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Table: West Thin Stillage Tank and West C-400 Thrus Tank

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (gal/min)	Receiving Tank
551.0	1264.8	DH4, #6 Sharples Centrifuge	Stillage	300	West Thin Stillage Tank
	1264.9	DH4, #7 Sharples Centrifuge		300	
	1265.5	DH4, #5 C-400 Centrifuge		80	
	1265.6	DH4, #6 C-400 Centrifuge		80	West C-400 Thrus Tank
	1265.7	DH4, #7 C-400 Centrifuge		80	
	1265.8	DH4, #8 C-400 Centrifuge		80	

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 15-A-354-S1
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.011 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-354-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.011 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-354-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.011 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 15-A-354-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.0840 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-354-S1
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 5.72 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-354-S1

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 69
Stack Opening (inches, dia.): 6
Exhaust Flowrate (scfm): 189
Exhaust Temperature (^oF): 200
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-354-S1

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 196.0

Associated Equipment

Associated Emission Unit ID Number: 1263.0
Emissions Control Equipment ID Numbers: 1263-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 1263.0
Emission Unit Description: DH4 and DH5 Rotary Dryers Product Receiver Cyclone
Raw Material/Fuel: Dry Feed
Rated Capacity: 60 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% [(1)]
Authority for Requirement: DNR Construction Permit 10-A-563-S1
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.140 lb/hr
Authority for Requirement: DNR Construction Permit 10-A-563-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.61 lb/hr
Authority for Requirement: DNR Construction Permit 10-A-563-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.61 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 10-A-563-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.42 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 10-A-563-S1
567 IAC 23.3(3)"e"

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

Operating Limits

A. The baghouse's (CE1263-1) differential pressure drop shall be maintained between 0.3 and 6 inches water column.
B. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse (CE1263-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the baghouse (CE1263-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1263-1), in inches of water, continuously. If the pressure drop across the baghouse (CE1263-1) falls outside the range specified in Operating Limits condition A., the owner or operator shall investigate the baghouse (CE1263-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1263-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 10-A-563-S1

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted June 7th -16th, 2016 show an exceedance of the permitted PM2.5 limits.

Condition
The permittee has submitted an application to modify DNR Construction Permit 10-A-563-S1 (project number 16-485). This emission point will be in compliance with the PM2.5 limit when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 82.67
Stack Opening (inches, dia.): 22
Exhaust Flowrate (scfm): 7,000
Exhaust Temperature (^oF): 90
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 10-A-563-S1

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

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

Stack Testing:

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – One Time
Test Method – 40 CFR 51, Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 10-A-563-S1

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 311.0

Associated Equipment

Associated Emission Unit ID Number: See Table: Dryer House 4 Rotary Dryers
Emissions Control Equipment ID Numbers: See Table: Dryer House 4 Controls
Emissions Control Equipment Description: See Table: Dryer House 4 Controls

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Table: Dryer House 4 Rotary Dryers

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Rated Capacity (tons/hr)
311.0	1236.0	Dryer House 4, Rotary Dryer #5	Dried Feed	4.25
	1238.0	Dryer House 4, Rotary Dryer #6		6.65
	1241.0	Dryer House 4, Rotary Dryer #7		6.65

Table: Dryer House 4 Controls

Emission Unit Number	Emission Unit Description	Control Equipment		
1236.0	Dryer House 4, Rotary Dryer #5	Expansion Chamber (CE1236-1)	Spray Chamber Scrubber (CE1236-2)	Regenerative Thermal Oxidizer (CE1236-3), Maximum Heat Input: 12.0 MMBtu/hr with Low NOx Burners
1238.0	Dryer House 4, Rotary Dryer #6	Expansion Chamber (CE1238-1)		
1241.0	Dryer House 4, Rotary Dryer #7	Expansion Chamber (CE1241-1)		

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 15-A-213
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.60 lb/hr [(2)]
Authority for Requirement: DNR Construction Permit 15-A-213

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 5.7 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-213

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 5.7 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 15-A-213
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.10 lb/hr (RACT limit); 90% Control Efficiency or 10 $ppm_{v,d}$ [(2) (3)]
Authority for Requirement: DNR Construction Permit 15-A-213

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 98% Control Efficiency or 10 $ppm_{v,d}$ [(4)]
Authority for Requirement: DNR Construction Permit 15-A-213

(2) Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

(3) Limit requires 90 percent control efficiency across Spray Chamber Scrubber (CE1236-2) or SO2 concentration of 10 $ppm_{v,d}$ from the outlet of EP311.0. Compliance with limit shall be demonstrated by measuring the SO_2 concentration of the inlet and outlet of Spray Chamber Scrubber (CE1236-2) to determine control efficiency of the scrubber or measuring the outlet SO_2 concentration from EP311.0.

(4) Limit requires 98 percent control efficiency across Regenerative Thermal Oxidizer (CE1236-3) or VOC concentration of 10 $ppm_{v,d}$ from the outlet of EP311.0. Compliance with limit shall be demonstrated by measuring the inlet and outlet VOC concentration of Regenerative Thermal Oxidizer (CE1236-3) to determine control efficiency of Regenerative Thermal Oxidizer (CE1236-3) or measuring the outlet VOC concentration from EP311.0.

Other Emission Limits

<u>For DH4 Feed Dryer #5, EU1236.0</u>

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 1.41 lb/hr (LAER limit)
Authority for Requirement: DNR Construction Permit 15-A-213
567 IAC 31.20(1)"d"

For DH4 Feed Dryer #6, EU1238.0

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 0.1 gr/scf (LAER limit)
Authority for Requirement: DNR Construction Permit 15-A-213
567 IAC 31.20(1)"d"

For DH4 Feed Dryer #7, EU1241.0

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 1.60 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-213

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

Operating Limits

DH4, Rotary Dryer #5 (EU 1236.0)

A. The capacity of the DH4, Rotary Dryer #5 (EU 1236.0) is limited to 4.25 tons per hour of dry product.
B. The #5 Rotary Dryer Stub Feeder Conveyor speed shall not exceed 28.9 revolutions per minute (rpm) on a one (1) hour average which is 85% of the maximum conveyor speed of 34 rpm.

Control Equipment
C. The Spray Chamber Scrubber (CE1236-2) total liquor flowrate shall be maintained at or above 55 gallons per minute.
D. The pressure drop across Spray Chamber Scrubber (CE1236-2) shall be maintained between 1 to 6 inches of water column.
E. The pH range of the scrubbing liquor in Spray Chamber Scrubber (CE1236-2) shall be maintained between 5 and 8.
F. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate, pH, and differential pressure drop across the Spray Chamber Scrubber (CE1236-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
G. The owner or operator shall develop an operating and maintenance plan for Spray Chamber Scrubber (CE1236-2) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
H. The owner or operator shall maintain a Regenerative Thermal Oxidizer (CE1236-3) combustion chamber temperature to no less than 1600 degrees Fahrenheit based on a 3-hour block average.
I. The owner or operator shall combust only natural gas or process off-gasses in Regenerative

Thermal Oxidizer (CE1236-3).

J. The owner or operator shall only bypass Regenerative Thermal Oxidizer (CE1236-3) for purposes of malfunction and/or maintenance for a maximum of 200 hours per twelve month rolling period.

K. The owner or operator shall properly operate and maintain equipment to monitor the chamber temperature of Regenerative Thermal Oxidizer (CE1236-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

L. The owner or operator shall develop an operating and maintenance plan for Regenerative Thermal Oxidizer (CE1236-3) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

DH4, Process Building

M. The owner or operator shall conduct visible emissions observation on Dryer House 4 (DH4) Process Building once per calendar week.

Project Completion

N. The owner or operator shall install and commence operation of Spray Chamber Scrubber (CE1236-2) by November 1, 2016.

O. The owner or operator shall install and commence operation of Regenerative Thermal Oxidizer (CE1236-3) by November 1, 2016.

P. The owner or operator construct stack EP311.0 to conform to the parameters as specified in the Emission Point Characteristics section by November 1, 2016.

Reporting & Record keeping

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

DH4, Rotary Dryer #5 (EU 1236.0)

A. The owner or operator shall properly operate and maintain equipment to continuously monitor the #5 Rotary Dryer Stub Feeder Conveyor motor speed. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

B. The owner or operator shall collect and calculate the #5 Rotary Dryer Stub Feeder Conveyor speed, in revolutions per minute, continuously. This requirement shall not apply on the days that DH4, Rotary Dryer #5 is not in operation.

C. The owner or operator shall determine and track the hourly average #5 Rotary Dryer Stub Feeder Conveyer speed in revolutions per minute.

Control Equipment

D. The owner or operator shall collect and record the total liquor flow rate to Spray Chamber Scrubber (CE1236-2), in gallons per minute on a continuous basis. If the total liquor flow

rate to Spray Chamber Scrubber (CE1236-2) falls below the value specified in Operating Limits condition D above, the owner or operator shall investigate Spray Chamber Scrubber (CE1236-2) and make corrections to Spray Chamber Scrubber (CE1236-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Spray Chamber Scrubber (CE1236-2) is not in operation.

E. The owner or operator shall collect and record the pressure drop across the Spray Chamber Scrubber (CE1236-2), in inches of water, on a continuous basis. If the pressure drop across Spray Chamber Scrubber (CE1236-2) falls outside the range specified in Operating Limits condition E above, the owner or operator shall investigate Spray Chamber Scrubber (CE1236-2) and make corrections to Spray Chamber Scrubber (CE1236-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Spray Chamber Scrubber (CE1236-2) is not in operation.

F. The owner or operator shall collect and record the scrubbing liquor pH in Spray Chamber Scrubber (CE1236-2), on a continuous basis. If the pH of the scrubbing liquor in Spray Chamber Scrubber (CE1236-2) falls outside the range specified in Operating Limits condition F above, the owner or operator shall investigate Spray Chamber Scrubber (CE1236-2) and make corrections to Spray Chamber Scrubber (CE1236-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Spray Chamber Scrubber (CE1236-2) is not in operation.

G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Spray Chamber Scrubber (CE1236-2).

H. The owner or operator shall collect and record the combustion chamber temperature of Regenerative Thermal Oxidizer (CE1236-3), in °F on a continuous basis. The owner or operator shall calculate and record the 3-hour block average of the combustion chamber temperature in °F. If the 3-hour block average combustion chamber temperature of Regenerative Thermal Oxidizer (CE1236-3) falls below the value specified in Operating Limits condition H above, the owner or operator shall investigate Regenerative Thermal Oxidizer (CE1236-3) and make corrections Regenerative Thermal Oxidizer (CE1236-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Regenerative Thermal Oxidizer (CE1236-3) is not in operation.

I. The owner or operator shall record the total hours and the cause of Regenerative Thermal Oxidizer (CE1236-3) bypass on a monthly basis. The owner or operator shall calculate and record the rolling 12-month totals.

J. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Regenerative Thermal Oxidizer (CE1236-3).

DH4, Process Building

K. If the owner or operator observes visible emissions from Dryer House 4 (DH4) Process Building, the owner or operator shall investigate the emission units, control equipment or operations associated with DH4 Building and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that emission units, control equipment or operations associated with DH4 Building are not in operation.

Project Completion

L. The owner or operator shall maintain a record of installation date and operation commencement date of Spray Chamber Scrubber (CE1236-2).
M. The owner or operator shall maintain a record of installation date and operation commencement date of Regenerative Thermal Oxidizer (CE1236-3).
N. The owner or operator shall maintain a record of the completion date that EP311.0 is constructed as specified in the Emission Point Characteristics section.

Authority for Requirement: DNR Construction Permit 15-A-213

Compliance Plan

The owner/operator of this equipment shall comply with following compliance plan.

Description

The results of stack testing conducted August 3, 2016, 2016 show an exceedance of the permitted PM2.5 limit.

Condition

The permittee has submitted an application to modify DNR Construction Permit 15-A-213. The Iowa Department of Natural Resources is currently reviewing the application.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 110
Stack Opening (inches, dia.): 64
Exhaust Flowrate (scfm): 35,600
Exhaust Temperature (^{o}F): 187
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 15-A-213

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

Monitoring Requirements

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

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 9
Authority for Requirement – DNR Construction Permit 15-A-213

Pollutant – Particulate Matter ($PM_{2.5}$) [1]
Stack Test to be Completed – Once Every 3 Calendar Years [3]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 15-A-213

Pollutant – Particulate Matter (PM_{10}) [2]
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – DNR Construction Permit 15-A-213

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 15-A-213

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 15-A-213

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed - Once Every 3 Calendar Years [3]
Test Method – 40 CFR 60, Appendix A, Method 25A
Authority for Requirement – DNR Construction Permit 15-A-213

[1] If performance testing using methods specified in 40 CFR 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation) then the owner or operator shall demonstrate compliance with $PM_{2.5}$ limit as specified in the Emission Limits section by conducting methods specified in 40 CFR 60, Appendix A, Method 5 and 40 CFR 51 Appendix M Method 202. Utilizing Method 5, the filterable $PM_{2.5}$ fraction shall be determined by conducting internal particle sizing of the dried feed product (immediately following the feed dryers) to determine the $PM_{2.5}$ fraction of the measured total filterable particulate. Utilizing Method 202, the measured condensable fraction shall be considered all $PM_{2.5}$.

[2] Performance testing may be conducted for total particulate matter to demonstrate compliance with PM_{10} limit as specified in the Emission Limits section above.

(3) Performance testing for PM, PM_{10}, $PM_{2.5}$, SO_2, VOC and visible observation shall be conducted once every 3 calendar years. After the completion of three consecutive performance tests that demonstrate compliance with PM, PM_{10}, $PM_{2.5}$, SO_2, VOC emission limits as specified in the Emission Limits section, the owner or operator may request to modify the performance testing frequency for PM, PM_{10}, $PM_{2.5}$, SO_2, VOC and visible observation.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 601.0

Associated Equipment

Associated Emission Unit ID Numbers: 1267.0
Emissions Control Equipment ID Number: 1267-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 1267.0
Emission Unit Description: Dryer House 5 Spent Germ Pneumatic Transport
Raw Material/Fuel: Dry Germ
Rated Capacity: 6.0 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% [(1)]
Authority for Requirement: DNR Construction Permit 11-A-340
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.03 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-340

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.03 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-340

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.03 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 11-A-340
` 567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.02 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 11-A-340
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.22 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-340

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

Operating Limits

A. The baghouse, CE 1267-1 differential pressure drop shall be maintained between 1 and 6 inches water column while the baghouse is in use.
B. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
B. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, continuously. This requirement shall not apply on the days that the baghouse is not in use.
C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 11-A-340

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted May 20, 2015 show an exceedance of the permitted PM, PM10, PM2.5, and SO2 limits.

Condition
The permittee has submitted an application to modify DNR Construction Permit 11-A-340 (project number 15-391). This emission point will be in compliance with the PM, PM10, PM2.5, and SO2 limits when the construction permit modification for this emission unit is issued and

retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 130
Stack Opening (inches, dia.): 8
Exhaust Flowrate (scfm): 700
Exhaust Temperature (^oF): 120
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-340

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

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

Stack Testing:

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – One Time
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 11-A-340

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed - One Time
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 11-A-340

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - One Time
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – DNR Construction Permit 11-A-340

Pollutant – Sulfur Dioxide (SO_2)
Stack Test to be Completed - One Time
Test Method – 40 CFR 60, Appendix A, Method 6C
Authority for Requirement – DNR Construction Permit 11-A-340

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 603.0

Associated Equipment

Associated Emission Unit ID Number: 1269.0
Emissions Control Equipment ID Numbers: 1269-1
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 1269.0
Emission Unit Description: Dryer House 5 (DH5) Mill Feed Receiving
Raw Material/Fuel: Feed
Rated Capacity: 35 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% [(1)]
Authority for Requirement: DNR Construction Permit 11-A-342
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.16 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-342

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.43 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-342

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.43 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 11-A-342
567 IAC 23.4(7)

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

Operating Limits

A. The baghouse, CE 1269-1 differential pressure drop shall be maintained between 1 and 6 inches water column while the baghouse is in use.

B. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
B. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, continuously. This requirement shall not apply on the days that the baghouse is not in use.
C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 11-A-342

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted September 23, 2015 show an exceedance of the permitted PM2.5 limits.

Condition
The permittee has submitted an application to modify DNR Construction Permit 11-A-342 (project number 15-391). This emission point will be in compliance with the PM2.5 limit when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 130
Stack Opening (inches, dia.): 24
Exhaust Flowrate (scfm): 10,000
Exhaust Temperature (^{o}F): 105
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-342

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

Monitoring Requirements

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

Stack Testing:

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – One-time
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 11-A-342

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed – March 12, 2020
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - March 12, 2020
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 605.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: DH5 Dewatering Building
Emissions Control Equipment ID Number: 1278-1
Emissions Control Equipment Description: Packed Bed Scrubber

Applicable Requirements

Table: DH5 Dewatering Building

Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity
1278.0	#1 - #5 Laval Centrifuges	Stillage	450 gals/min per centrifuge; 1800 gals/min total
1279.0	Thin Stillage Tank, Fiber Press Water Tank, Water Heat Evaporator Product Tank	Stillage	204 tons/hr
1280.0	Decanter Discharge Screw Conveyor, Fiber Press Cake Conveyor, Blended Cake Transfer Screw Conveyor, Spent Germ and Dried Fiber Transfer Conveyor	Stillage, Decant, Dried Fiber, Spent Germ	140,000 bu/day equivalent
1281.0	#1 - #4 Dewatering Screw Press	Stillage	400 gal/min per press; maximum feed rate: 1200 gal/min (3 presses at any one time)

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 14-A-552
567C 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 ($PM_{2.5}$)
Emission Limit(s): 0.01 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-552

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.01 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-552

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 14-A-552

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.92 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 14-A-552

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.0 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-552

Operational Limits & Requirements

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

Operating Limits

A. The Packed Bed Scrubber (CE1278-1) total liquor flow rate shall be maintained at or above 75 gallons per minute.
B. The pressure drop across Packed Bed Scrubber (CE1278-1) shall be maintained between 1 to 6 inches of water column.
C. The pH range of the scrubbing liquor in Packed Bed Scrubber (CE1278-1) shall be maintained between 5 and 8.
D. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate, pH, and differential pressure drop across the Packed Bed Scrubber (CE1278-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer’s recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
E. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE1278-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall collect and record the total liquor flow rate to Packed Bed Scrubber (CE1278-1), in gallons per minute on a continuous basis. If the total liquor flow rate to Packed Bed Scrubber (CE1278-1) falls below the value specified in the Operating Limits section condition A above, the owner or operator shall investigate Packed Bed Scrubber (CE1278-1) and make corrections to Packed Bed Scrubber (CE1278-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE1278-1) is not in operation.
B. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE1278-1), in inches of water, on a continuous basis. If the pressure drop across Packed Bed Scrubber (CE1278-1) falls outside the range specified in the Operating Limits section condition A above, the owner or operator shall investigate Packed Bed Scrubber (CE1278-1) and make corrections to Packed Bed Scrubber (CE1278-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE1278-1) is not in operation.
C. The owner or operator shall collect and record the scrubbing liquor pH in Packed Bed Scrubber (CE1278-1), on a continuous basis. If the pH of the scrubbing liquor in Packed Bed Scrubber (CE1278-1) falls outside the range specified in the Operating Limits section condition A above, the owner or operator shall investigate Packed Bed Scrubber (CE1278-1) and make corrections to Packed Bed Scrubber (CE1278-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Packed Bed Scrubber (CE1278-1) is not in operation.
D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE1278-1).

Authority for Requirement: DNR Construction Permit 14-A-552

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted May 19, 2015 show an exceedance of the permitted PM2.5, PM10, PM, VOC, and SO2 limits.

Condition
The permittee has submitted an application to modify DNR Construction Permit 14-A-552 (project number 15-391). This emission point will be in compliance with the PM2.5, PM10, PM, VOC, and SO2 limits when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.
.
Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 123
Stack Opening (inches, dia.): 30
Exhaust Flow Rate (scfm): 6,000
Exhaust Temperature (^oF): 98
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 14-A-552

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

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – One Time
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 14-A-552

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed - One Time
Test Method – 40 CFR 51 Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 14-A-552

Pollutant – Particulate Matter (PM) – State
Stack Test to be Completed - One Time
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M, Method 202
Authority for Requirement – DNR Construction Permit 14-A-552

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed - One Time
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 14-A-552

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a

continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 600.0

Associated Equipment

Associated Emission Unit ID Number: 1266.0
Emissions Control Equipment ID Numbers: 1266-1, 1266-2
Emissions Control Equipment Description: SO2 Scrubber (CE1266-1),
Dryer Burner / Thermal Oxidizer (CE1266-2)

Emission Unit vented through this Emission Point: 1266.0
Emission Unit Description: Dryer House 5 (DH5) Swiss Combi Dryer
Raw Material/Fuel: Dried Feed
Rated Capacity: 35.24 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% [(1)]
Authority for Requirement: DNR Construction Permit 11-A-339
567 IAC 23.3(2)"d"

[(1)] 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).

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 5.31 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-339

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 14.48 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-339

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf ; 0.6 lb/MMBtu; 14.48 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-339
567 IAC 23.4(7)
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 4.86 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 11-A-339
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 8.80 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-339

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.52 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-339

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 13.44 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-339

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

This emission unit is subject to Subpart A – *General Provisions* (40 CFR §60.1 through 40 CFR §60.19) of the New Source Performance Standards (NSPS) and Subpart Dc – Standards of Performance for *Industrial-Commercial-Institutional Steam Generating Units* (40 CFR §60.40c through 40 CFR §60.48c) and is also subject to the requirements of 567 IAC 23.1(2)"lll". Per 40 CFR §60.40c(e), If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart.

Authority for Requirement: DNR Construction Permit 11-A-339
40 CFR Part 60 Subpart Dc
567 IAC 23.1(2)"lll"

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

Authority for Requirement: 567 IAC 22.108(3)
40 CFR Part 63 Subpart DDDDD

Operating Limits

A. The DH5 Swiss Combi Dryer burner / thermal oxidizer shall combust only natural gas or biogas.
B. The biogas combusted in the burner shall have a maximum hydrogen sulfide concentration of 50 ppm_v, as measured on a 24-hour rolling average basis.
C. The DH5 Swiss Combi Dryer SO_2 scrubber (CE 1266-1) scrubbant flowrate shall be maintained at or above 2,200 gallons per minute.
D. The DH5 Swiss Combi Dryer SO_2 scrubber (CE 1266-1) scrubbant pH shall be maintained between 6 and 9.

E. The DH5 Swiss Combi Dryer's burner / thermal oxidizer (CE 1266-2) shall maintain a minimum operating temperature (3-hour average) of 1,600 degrees Fahrenheit as measured at the exit of the combustion chamber.
F. The owner or operator shall develop an operating and maintenance plan for the scrubber and thermal oxidizer, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. 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 in the affected facility. As an alternative, as provided in 40 CFR §60.48c(g)(2) and (3), the owner or operator may elect to either:
    a. Record and maintain records of the amount of each fuel combusted during each calendar month; or,
    b. Record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.
B. Record the 24-hour rolling average hydrogen sulfide concentration of the biogas combusted in the DH5 Swiss Combi Dryer. This requirement shall only apply when the dryer is combusting biogas.
C. Per 40 CFR§60.48c(a), the owner or operator shall submit notification of the date of construction or reconstruction and actual startup. This notification shall include
    a. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
    b. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
D. The owner or operator shall follow the reporting requirements of 40 CFR §60.48c.
E. The owner or operator shall properly operate and maintain equipment to continuously monitor the SO2 scrubber scrubbant flowrate. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
F. The owner or operator shall maintain a continuous record of the SO2 scrubber scrubbant flowrate, in gallons per minute. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.
G. The owner or operator shall properly operate and maintain equipment to monitor the SO2 scrubber scrubbant pH. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
H. The owner or operator shall collect and record the pH of the SO2 scrubber scrubbant, in standard units, on a daily basis. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.

I. The owner or operator shall keep hourly records of the operating temperature of the thermal oxidizer and record all periods (during actual operations) where the 3-hour average temperature is less than 1,600 degrees Fahrenheit.
J. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and the monitoring devices.

Authority for Requirement: DNR Construction Permit 11-A-339

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 155
Stack Opening (inches, dia.): 60
Exhaust Flowrate (scfm): 28,153
Exhaust Temperature (^{o}F): 160
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-339

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

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

Stack Testing

Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – March 12, 2020
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed - March 12, 2020
Test Method – 40 CFR 51 Appendix M, 201 A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed - March 12, 2020
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be Completed – March 12, 2020
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – 567 IAC 22.108(3)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 199.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: DH4 & DH5 Feed Milling & Transport
Emissions Control Equipment ID Numbers: See Table: DH4 & DH5 Feed Milling & Transport
Emissions Control Equipment Description: See Table: DH4 & DH5 Feed Milling & Transport

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Table: DH4 & DH5 Feed Milling & Transport

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Control Equipment Number	Control Equipment Description
199.0	1273.1	DH4 Stedman Mill and Product Transport	Feed	18	1273-1	Baghouse
	1273.2	DH4 Stedman Cage Mill Feed Transport		18	1273-2	Baghouse
	1273.3	DH5 Stedman Mill and Product Transport		39	1273-3	Baghouse
	1273.4	*Closed Circuit Fluid Bed Cooler including DH4 Mill Feed Bed Cooler Baghouse		18	NA	NA

* Closed loop system that does not vent directly to EP199

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.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 14-A-502
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 ($PM_{2.5}$)
Emission Limit(s): 0.65 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-502

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.71 lb/hr
Authority for Requirement: DNR Construction Permit 14-A-502

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.71 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit14-A-502
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 9.0 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit14-A-502
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.0 lb/hr
Authority for Requirement: DNR Construction Permit14-A-502

Operational Limits & Requirements

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

Operating Limits

A. The differential pressure drop across DH4 Mill Product Transport System Receiving Baghouse (CE1273-1) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the DH4 Mill Product Transport System Receiving Baghouse (CE1273-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the DH4 Mill Product Transport System Receiving Baghouse (CE1273-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
D. The differential pressure drop across DH4 Mill Feed Receiving Baghouse (CE1273-2) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
E. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the DH4 Mill Feed Receiving Baghouse (CE1273-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
F. The owner or operator shall develop an operating and maintenance plan for the DH4 Mill Feed Receiving Baghouse (CE1273-2) including a preventative maintenance schedule that is

consistent with the manufacturer's instructions for routine and long-term maintenance.

G. The differential pressure drop across DH5 Mill Product Transport System Receiving Baghouse (CE1273-3) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
H. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the DH5 Mill Product Transport System Receiving Baghouse (CE1273-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
I. The owner or operator shall develop an operating and maintenance plan for the DH5 Mill Product Transport System Receiving Baghouse (CE1273-3) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. Maintain a record of the date that the equipment and emission points specified in Table 1 of Operating Limits section condition A have permanently ceased operation and have been decommissioned.
B. The owner or operator shall collect and record the pressure drop across the DH4 Mill Product Transport System Receiving Baghouse (CE1273-1), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1273-1) falls outside the range specified in Operating Limits condition B., the owner or operator shall investigate Baghouse (CE1273-1) and make corrections to Baghouse (CE1273-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1273-1) is not in operation.
C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the DH4 Mill Product Transport System Receiving Baghouse (CE1273-1).
D. The owner or operator shall collect and record the pressure drop across DH4 Mill Feed Receiving Baghouse (CE1273-2), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1273-2) falls outside the range specified in Operating Limits condition E., the owner or operator shall investigate Baghouse (CE1273-2) and make corrections to Baghouse (CE1273-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1273-2) is not in operation.
E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the DH4 Mill Feed Receiving Baghouse (CE1273-2).
F. The owner or operator shall collect and record the pressure drop across DH5 Mill Product Transport System Receiving Baghouse (CE1273-3), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1273-3) falls outside the range specified in

Operating Limits condition H., the owner or operator shall investigate Baghouse (CE1273-3) and make corrections to Baghouse (CE1273-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1273-3) is not in operation.

G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the DH5 Mill Product Transport System Receiving Baghouse (CE1273-3).

Authority for Requirement: DNR Construction Permit 14-A-502

Compliance Plan

The owner/operator of this equipment shall comply with following compliance plan.

Description

The results of stack testing conducted September 23, 2015 and October 30, 2015 show exceedances of the permitted PM2.5 limits.

Condition

The permittee has submitted an application to modify DNR Construction Permit 14-A-502 (project number 15-391). This emission point will be in compliance with the PM2.5 limits when the construction permit modification for this emission unit is issued and retesting of the source, if required, is complete and accepted by the Department.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 152
Stack Opening (inches, dia.): 48
Exhaust Flowrate (scfm): 34,620
Exhaust Temperature (^{o}F): 150
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 14-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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Stack Testing:

Authority for Requirement – 567 IAC 22.108(3)
Pollutant – Particulate Matter ($PM_{2.5}$)
Stack Test to be Completed – One Time
Test Method – 40 CFR 51, Appendix M, 201A with 202
Authority for Requirement – DNR Construction Permit 14-A-502

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed – March 12, 2021
Test Method – 40 CFR 51, Appendix M, 201A with 202
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM) - State
Stack Test to be Completed – March 12, 2021
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M Method 202

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 119.0

Associated Equipment

Associated Emission Unit ID Numbers: 1234.0
Emissions Control Equipment ID Number: 1234-2
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 1234.0
Emission Unit Description: Dryer House Warehouse # 1 Crown Feed Cooler
Raw Material/Fuel: Dry Feed
Rated Capacity: 25 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%[(1)]
Authority for Requirement: DNR Construction Permit 75-A-353-S2
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 ($PM_{2.5}$)
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-353-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.42 lb/hr
Authority for Requirement: DNR Construction Permit 75-A-353-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.42 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 75-A-353-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.20 lb/hr (RACT limit); 500 ppmv
Authority for Requirement: DNR Construction Permit 75-A-353-S2

Operational Limits & Requirements

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

Operating Limits

A. The differential pressure drop across Baghouse (CE1234-2) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1234-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1234-2) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1234-2), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1234-2) falls outside the range specified in Operating Limit Condition A., the owner or operator shall investigate Baghouse (CE1234-2) and make corrections to Baghouse (CE2436-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1234-2) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1234-2).

Authority for Requirement: DNR Construction Permit 75-A-353-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 80.0
Stack Opening (inches, dia.): 24
Exhaust Flowrate (scfm): 9,860
Exhaust Temperature (^{o}F): 89
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 75-A-353-S2

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

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: 167.0

Associated Equipment

Associated Emission Unit ID Numbers: 1242.0
Emissions Control Equipment ID Number: 1242-1
Emissions Control Equipment Description: Pulse Jet Baghouse

Emission Unit vented through this Emission Point: 1242.0
Emission Unit Description: Dryer House Warehouse # 2 Crown Feed Cooler
Raw Material/Fuel: Dry Feed
Rated Capacity: 25 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% [(1)]
Authority for Requirement: DNR Construction Permit 90-A-111-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.11 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-111-S1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.20 lb/hr
Authority for Requirement: DNR Construction Permit 90-A-111-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.20 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 90-A-111-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.20 lb/hr (RACT limit); 10 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 90-A-111-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 15 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 90-A-111-S1

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Operational Limits & Requirements

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

Operating Limits

A. The differential pressure drop across Baghouse (CE1242-1) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1242-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1242-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

Reporting & Record keeping

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

A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1242-1), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1242-1) falls outside the range specified in Operating Limits condition A., the owner or operator shall investigate Baghouse (CE1242-1) and make corrections to Baghouse (CE1242-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1242-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1242-1).

Authority for Requirement: DNR Construction Permit 90-A-111-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 80.0
Stack Opening (inches, dia.): 27
Exhaust Flowrate (scfm): 8,500
Exhaust Temperature (^{o}F): 82
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 90-A-111-S1

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 190A (also known as 190.1)

Associated Equipment

Associated Emission Unit ID Number: 1256.0
Emissions Control Equipment ID Number: 1256-1
Emissions Control Equipment Description: Jet Pulse Baghouse

Emission Unit vented through this Emission Point: 1256.0
Emission Unit Description: GP2 Gluten Loadout Pneumatic Transport System
Raw Material/Fuel: Gluten
Rated Capacity: 32.0 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%[(1)]
Authority for Requirement: DNR Construction Permit 02-A-781-S2
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 ($PM_{2.5}$)
Emission Limit(s): 0.021 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-781-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.11 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-781-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.11 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-781-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.125 lb/hr (RACT limit); 5.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 02-A-781-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 02-A-781-S2

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

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

Operating Limits

A. The differential pressure drop across Baghouse (CE1256-1) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1256-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1256-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1256-1), in inches of water, on a daily basis. If the pressure drop across Baghouse (CE1256-1) falls outside the range specified in Operating Limits condition A., the owner or operator shall investigate Baghouse (CE1256-1) and make corrections to Baghouse (CE1256-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1256-1) is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1256-1).

Authority for Requirement: DNR Construction Permit 02-A-781-S2

Compliance Plan
The owner/operator of this equipment shall comply with following compliance plan.

Description
The results of stack testing conducted April 26, 2016 show an exceedance of the permitted VOC limit.

Condition
The permittee has submitted a plan to address the VOC violations. The Iowa Department of Natural Resources is currently reviewing the plan.

Authority for Requirement: 567 IAC 22.108(15)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 77
Stack Opening (inches, dia.): 12
Exhaust Flowrate (scfm): 2,600
Exhaust Temperature (^{o}F): 80
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 02-A-781-S2

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

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

Stack Testing

Pollutant – Volatile Organic Compounds (VOC) [(1)]
Stack Test to be Completed – One-time
Test Method – 40 CFR 60, Appendix A, Method 18 or
40 CFR 63, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 02-A-781-S2

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 190B (also known as 190.2)

Associated Equipment

Associated Emission Unit ID Number: 1257.0
Emissions Control Equipment ID Number: 1257-1
Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: 1257.0
Emission Unit Description: GP2 Gluten Truck Loadout Bin
Raw Material/Fuel: Gluten
Rated Capacity: 32 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% [(1)]
Authority for Requirement: DNR Construction Permit 02-A-782-S2
567C 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 ($PM_{2.5}$)
Emission Limit(s): 0.002 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-782-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.009 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-782-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.009 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-782-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.005 lb/hr (RACT limit); 5.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 02-A-782-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permit 02-A-782-S2

[(2)] Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

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

Operating Limits

A. The owner or operator shall conduct visible emissions observation on emission point (EP190B) once per calendar day.
B. The owner or operator shall develop an operating and maintenance plan for Bin Vent Filter (CE1257-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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

A. If the owner or operator observes visible emissions from EP190B, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.
B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Bin Vent Filter (CE1257-1).

Authority for Requirement: DNR Construction Permit 02-A-782-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 77
Stack Opening (inches, dia.): 6
Exhaust Flowrate (scfm): 100
Exhaust Temperature (^{o}F): 70
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 02-A-782-S2

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

temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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 Numbers: See Table: Feed Truck Loadout

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Feed Truck Loadout
Emissions Control Equipment ID Numbers: See Table: Feed Truck Loadout
Emissions Control Equipment Description: See Table: Feed Truck Loadout

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Table: Feed Truck Loadout

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Control Equipment Number	Control Equipment Description
179.0	1258.0	Gluten Surge Bin, Feed Loading Surge Bin, GP2 # 1 Feed Truck Loadout	Feed	100	1258-1	Pulse Jet Baghouse – West Hood Baghouse
180.0	1259.0	Gluten Surge Bin, Feed Loading Surge Bin, GP2 # 2 Feed Truck Loadout	Feed	100	1259-1	Pulse Jet Baghouse – East Hood Baghouse

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each of these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2
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 ($PM_{2.5}$)
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.50 lb/hr
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.50 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.25 lb/hr (RACT limit); 5.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.0 $ppm_{v,d}$ [(2)]
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2

(2) Required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Operating Requirements with Associated Monitoring and Recordkeeping

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

H. The differential pressure drop across the Pulse Jet Baghouse (CE1258-1) shall be maintained between 0.1 and 6 inches water column.
I. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Pulse Jet Baghouse (CE1258-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
J. The owner or operator shall collect and record the pressure drop across the Pulse Jet Baghouse (CE1258-1), in inches of water, on a daily basis. If the pressure drop across the Pulse Jet Baghouse (CE1258-1) falls outside the range specified in Condition 5 A., the owner or operator shall investigate the Pulse Jet Baghouse (CE1258-1) and make corrections to the Pulse Jet Baghouse (CE1258-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Pulse Jet Baghouse (CE1258-1) is not in operation.
K. The owner or operator shall develop an operating and maintenance plan for the Pulse Jet Baghouse (CE1258-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
L. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Pulse Jet Baghouse (CE1258-1).

Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 75
Stack Opening (inches, dia.): 30
Exhaust Flowrate (scfm): 21,670
Exhaust Temperature (^{o}F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 92-A-383-S3, 92-A-385-S2

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: WETFEED

Associated Equipment

Associated Emission Unit ID Numbers: 1276.0

Emission Unit vented through this Emission Point: 1276.0
Emission Unit Description: Wet Feed Pad and Loadout for Feed with 10% Moisture Content or Greater
Raw Material/Fuel: Feed
Rated Capacity: 1500 tons/day

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: DNR Construction Permit 15-A-199
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.038 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-199

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.068 lb/hr
Authority for Requirement: DNR Construction Permit 15-A-199

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 15-A-199
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.15 lb/hr (RACT limit) ; 500 ppmv
Authority for Requirement: DNR Construction Permit 15-A-199
567 IAC 23.3(3)"e"

Operational Limits & Requirements

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

Operating Limits

A. The amount of wet feed loaded out shall not exceed 50,000 tons in any rolling 12-month period.

Reporting & Record keeping

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

A. The owner or operator shall maintain the following monthly records for the Wet Feed Loadout (EU1276.0):
   i. The amount of wet feed loaded out, in tons; and
   ii. The rolling 12-month total of the amount of wet feed loaded out, in tons.

Authority for Requirement: DNR Construction Permit 15-A-199

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: RAILCR1

Associated Equipment

Associated Emission Unit ID Numbers: 1274.0
Emissions Control Equipment ID Number: CE1274-1
Emission Control Equipment Description: Spout Socks

Emission Unit vented through this Emission Point: 1274.0
Emission Unit Description: Rail Car Loading of Feed
Raw Material/Fuel: Feed
Rated Capacity: 11.5 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%
Authority for Requirement: DNR Construction Permit 16-A-036
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.004 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-036

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-036

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.39 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-036
567 IAC 23.4(7)

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

A. The owner or operator shall operate the spout socks (CE1274-1) at all times in a manner to minimize or eliminate particulate matter emissions from this emissions unit (EU1274.0).

B. The owner or operator shall perform a monthly inspection on the spout socks (CE1274-1) to ensure it is in proper working condition. The results of the inspection shall be recorded.

C. The owner or operator shall develop an operating and maintenance plan for the spout socks (CE1274-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the spout socks (CE1274-1).

Authority for Requirement: DNR Construction Permit 16-A-036

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: RAILCR2

Associated Equipment

Associated Emission Unit ID Numbers: 1275.0
Emissions Control Equipment ID Number: CE1275-1
Emissions Control Equipment Description: Spout Socks

Emission Unit vented through this Emission Point: 1275.0
Emission Unit Description: Rail Loadout of Gluten
Raw Material/Fuel: Gluten
Rated Capacity: 11.5 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%
Authority for Requirement: DNR Construction Permit 16-A-037
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.004 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-037

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-037

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.39 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-037
567 IAC 23.4(7)

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

A. The owner or operator shall operate the spout socks (CE1275-1) at all times in a manner to minimize or eliminate particulate matter emissions from this emissions unit (EU1275.0).
B. The owner or operator shall perform a monthly inspection on the spout socks (CE1275-1) to

ensure it is in proper working condition. The results of the inspection shall be recorded.

C. The owner or operator shall develop an operating and maintenance plan for the spout socks (CE1275-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the spout socks (CE1275-1).

Authority for Requirement: DNR Construction Permit 16-A-037

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic 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: FEEDBRG

Associated Equipment

Associated Emission Unit ID Numbers: 1277.0

Emission Unit vented through this Emission Point: 1277.0
Emission Unit Description: Loading of Feed Into Barge
Raw Material/Fuel: Feed
Rated Capacity: 78.0 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%
Authority for Requirement: 567 IAC 23.3(2)"d"

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: E-1

Associated Equipment

Associated Emission Unit ID Number: U-1

Emission Unit vented through this Emission Point: U-1
Emission Unit Description: Ground and Whole Grains Unloading
Raw Material/Fuel: Grains
Rated Capacity: 30 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

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

Pollutant: Particulate Matter (PM)
Emission Limit: 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

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: E7A and E7B

Associated Equipment

Associated Emission Unit ID Numbers: 6335.0; 6335.1
Emissions Control Equipment ID Numbers: CE6335-1; CE6335-2
Emissions Control Equipment Description: Bin Vent Filters

Emission Units vented through this Emission Point: 6335.0; 6335.1
Emission Unit Description: SBM Bins
Raw Material/Fuel: Specialty Grain Ingredients
Rated Capacity: 30 tons/hr (each)

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.

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

Pollutant: Particulate Matter (PM)
Emission Limit: 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: E9A and E9B

Associated Equipment

Associated Emission Unit ID Number: 6337.1; 6337.2
Emissions Control Equipment ID Numbers: CE6337-1; CE6337-2
Emissions Control Equipment Description: Bin Vent Filters

Emission Unit vented through this Emission Point: 6337.1; 6337.2
Emission Unit Description: Loadout Bin #2, Loadout Bins
Raw Material/Fuel: Specialty Grains
Rated Capacity: 30 tons/hr

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.

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

Pollutant: Particulate Matter (PM)
Emission Limit: 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: E-10

Associated Equipment

Associated Emission Unit ID Number: U-10
Emissions Control Equipment ID Numbers: CE6338-3
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: U-10
Emission Unit Description: Cat Litter Pellet Cooler
Raw Material/Fuel: Specialty Grain Pellets
Rated Capacity: 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: 40% [(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 03-A-1415-S4

[(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_{10})
Emission Limit: 0.12 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1415-S4

Pollutant: Particulate Matter (PM)
Emission Limit: 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permit 03-A-1415-S4

Pollutant: Particulate Matter (PM)
Emission Limit: 0.12 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-1415-S4

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

Operating Limits

Control equipment parameters:

1. The owner or operator shall operate, inspect and maintain the control equipment according to manufacturer's specifications.

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

1. The owner or operator shall maintain a record of all inspections, maintenance activities and any action resulting from the inspection/maintenance of the control equipment.

Authority for Requirement: DNR Construction Permit 03-A-1415-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.): 18
Exhaust Temperature (^{o}F): 100
Exhaust Flow Rate (scfm): 5,679
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 03-A-1315-S4

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

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

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

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

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

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: FlatStor

Associated Equipment

Associated Emission Unit ID Numbers: 6334.2

Emission Unit vented through this Emission Point: 6334.2
Emission Unit Description: Flat Storage
Raw Material/Fuel: Grains
Rated Capacity: 20.5 ton/hr

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

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

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 1.0

Associated Equipment

Associated Emission Unit ID Number: See Table: Power House Boilers

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Table: Power House Boilers

Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity (MMBtu/hr)
5201.0	Power House Boiler #1	Natural Gas	120
5202.0	Power House Boiler #2	Natural Gas	120
5203.0	Power House Boiler #3	Natural Gas	105
5204.0	Power House Boiler #4	Natural Gas	105
5206.0	Power House Boiler #6	Natural Gas	230
5207.0	Power House Boiler #7	Natural Gas	230

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [1]
Authority for Requirement: DNR Construction Permit 95-A-374-S4
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 ($PM_{2.5}$)
Emission Limit(s): 6.78 lb/hr
Authority for Requirement: DNR Construction Permit 95-A-374-S4

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 6.78 lb/hr
Authority for Requirement: DNR Construction Permit 95-A-374-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.283 lb/MMBtu; 6.78 lb/hr
Authority for Requirement: DNR Construction Permit 95-A-374-S4
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2) – 24 hr NAAQS
Emission Limit(s): 500 ppmv; 3,915 lb/hr averaged over 24-hr calendar day
Authority for Requirement: DNR Construction Permit 95-A-374-S4
567 IAC 23.3(3)"e"

Pollutant: Sulfur Dioxide (SO_2) – 1 hr NAAQS
Emission Limit(s): 0.55 lb/hr (RACT limit)
Authority for Requirement: DNR Construction Permit 95-A-374-S4

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

NESHAP

These boilers are subject to the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial, and Institutional Boilers and Process Heaters* [40 CFR Part 63, Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD
567 IAC 22.108(3)

Operating Limits

A. The owner or operator shall not vent emissions from Boiler No.1, No.2 No. 3, No.4, No.6, and No.7 through the Bypass Stacks, i.e. "Short Stacks" associated with each boiler.
B. The owner or operator shall combust natural gas fuel only in Power House Boilers No.1, No.2, No.3, No.4, No.6, and No.7. As required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

Authority for Requirement: DNR Construction Permit 95-A-374-S4
Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)

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

A. The owner or operator shall maintain a record of the date that coal combustion permanently ceased in Power House Boilers No.1, No.2, No.3, No.4, No.6, and No.7.

Authority for Requirement: DNR Construction Permit 95-A-374-S4

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 219
Stack Opening (inches): 180
Exhaust Flow Rate (scfm): 263,400
Exhaust Temperature (^{o}F): 379
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 95-A-374-S4

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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 Numbers: 142.0 and 153.0

Associated Equipment

Associated Emission Unit ID Numbers: 5210.0, 5211.0
Emissions Control Equipment ID Number: CE5210-0, CE5211-0
Emissions Control Equipment Description: Low Excess Air

Emission Unit vented through Emission Point 142.0: 5210.0
Emission Unit Description: Boiler #10
Raw Material/Fuel: Natural Gas
Rated Capacity: 162 MMBtu/hr heat input

Emission Unit vented through Emission Point 153.0: 5211.0
Emission Unit Description: Boiler #11
Raw Material/Fuel: Natural Gas
Rated Capacity: 162 MMBtu/hr heat input

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each of these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1
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 ($PM_{2.5}$)
Emission Limit(s): 0.700 lb/hr
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.28 lb/hr
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.02 lb/MMBtu (LAER limit); 1.28 lb/hr
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1
567 IAC 31.20(1)"d"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv; 0.10 lb/hr (RACT limit)
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1
567 IAC 23.3(3)"e"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.008 lb/MMBtu
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 0.05 lb/MMBtu
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

BACT Emission Limits

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 0.25 lb/MMBtu, based on 24-hr average
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

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

NESHAP

These boilers are subject to the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial, and Institutional Boilers and Process Heaters* [40 CFR Part 63, Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD
567 IAC 22.108(3)

Operating Limits

A. The owner or operator shall tune Power House Boilers No. 10 and No. 11 burners on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
    - Inspect the burner-Clean and replace any components, as necessary
    - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
    - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
    - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
    - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in

the exhaust have been optimized consistent per manufacturer's specifications.

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

A. The owner or operator shall maintain record on annual basis of the following:
   - The completion date of Power House Boilers No. 10 and No. 11 burners tuning as specifed in condition A of the Operating Limits section above. ,
   - Power House Boilers No. 10 and No. 11 burners emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufacturer's specifications.

B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Power House Boilers No. 10 and No. 11 burners.

Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

Emission Point Characteristics
Each of these emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 110
Stack Opening (inches): 60
Exhaust Flow Rate (scfm): 33,000
Exhaust Temperature (^{o}F): 300
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 85-A-038-P1, 85-A-135-P1

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

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic 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: 177.0

Associated Equipment

Associated Emission Unit ID Numbers: 5212.0
Emissions Control Equipment ID Number: 5212.0
Emissions Control Equipment Description: Low NOx Burner
Continuous Emissions Monitors ID Number: 5112-M-1

Emission Unit vented through this Emission Point: 5212.0
Emission Unit Description: Power House Boiler No. 12
Raw Material/Fuel: Natural Gas
Rated Capacity: 359.6 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% [(1)]
Authority for Requirement: DNR Construction Permit 93-A-110-P1
567C 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 ($PM_{2.5}$)
Emission Limit(s): 1.50 lb/hr
Authority for Requirement: DNR Construction Permit 93-A-110-P1

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 2.68 lb/hr
Authority for Requirement: DNR Construction Permit 93-A-110-P1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.6 lb/MMBtu; 2.68 lb/hr
Authority for Requirement: DNR Construction Permit 93-A-110-P1
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.22 lb/hr (RACT limit)
Authority for Requirement: DNR Construction Permit 93-A-110-P1

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 0.20 lb/MMBtu [(2) (3)]
Authority for Requirement: DNR Construction Permit 93-A-110-P1
567C 23.1(2)"ccc"

(2) As specified in 40 CFR 60.44b(h), this standard applies at all times including startup, shutdown, or malfunction.
(3) As specified in 40 CFR 60.44b(i), compliance with the emission limit is determined on a 30-day rolling average basis.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.005 lb/MMBtu
Authority for Requirement: DNR Construction Permit 93-A-110-P1

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 0.05 lb/MMBtu
Authority for Requirement: DNR Construction Permit 93-A-110-P1

BACT Emission Limit

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 294.5 tons/yr [(4)]
Authority for Requirement: DNR Construction Permit 93-A-110-P1

(4) NO_x emission limit is based on a 30-day rolling average. The NO_x emission limit applies at all times including startup, shutdown, or malfunction.

<u>Operational Limits & Requirements</u>
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This emission unit is subject to New Source Performance Standards (NSPS) 40 CFR Part 60 §60.40b – 40 CFR §60.49b Subpart Db - *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.* This emission unit is also subject to the General Provisions of 40 CFR Part 60 Subpart A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19).
Authority for Requirement: DNR Construction Permit 93-A-110-P1
40 CFR Part 60 Subpart Db
567 IAC 23.1(2)"ccc"

This equipment is subject to the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Major Sources: *Industrial, Commercial, and Institutional Boilers and Process Heaters* [40 CFR Part 63, Subpart DDDDD].

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD
567 IAC 22.108(3)

Operating Limits

A. The owner or operator shall tune Low NOx Burner (CE5212.0) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:

- Inspect the burner-Clean and replace any components, as necessary
- Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
- Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
- Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
- Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufacturer's specifications

Reporting & Record keeping

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

A. The owner or operator shall maintain record on annual basis of the following:
   - The completion date of Low NOx Burner (CE5212.0) tuning as specifed in condition A above.
   - Document that Low NOx Burner (CE5212.0) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufacturer's specifications.

B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Low NOx Burner (CE5212.0).

C. Per 40 CFR §60.49b(d), The owner or operator shall record and maintain records of the amounts of each fuel combusted in the Boiler 12 (EU 5212.0) system during each day and calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Db- *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, specifically §60.49b.

Authority for Requirement: DNR Construction Permit 93-A-110-P1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 117
Stack Opening (inches, dia.): 72
Exhaust Flow Rate (scfm): 97,400
Exhaust Temperature (^oF): 350
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 93-A-110-P1

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

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

Continuous Emissions Monitoring:

Pollutant – Nitrogen Oxides (NOx)
Operational Specifications – 40 CFR 60 Appendix B Performance Specification 2
Date of Initial System Calibration and Quality Assurance – July 29, 2015
Ongoing System Calibration/Quality Assurance – 40 CFR 60 Appendix F Procedure 1
Reporting & Record keeping – 40 CFR 60.7(c) and (d)
Authority for Requirement - DNR Construction Permit 93-A-110-P1

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

The 1-hour average NO_X emission rates measured by the NO_X CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).

Per 40 CFR 60.49b(f), when NO_X emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

The owner or operator shall demonstrate compliance with the NO_X ton per year emission limit through the use of a continuous gas fuel flow sensor. The owner or operator shall install, calibrate, maintain, and operate a gas fuel flow sensor for calculating the 30-day rolling average emission rates of NO_X discharged from the emission point to the atmosphere.

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

All continuous monitoring systems (CMS) required by this permit shall be operated and data recorded during all periods of operation of the Boiler 12 (EU5212.0) except for CMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments.

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

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

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

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

1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
    a. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentrations monitor for the hour before and the hour after the missing data period.
    b. For missing data period greater than 24 hours, substitute the greater of:
        i. The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
        ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing

data period.

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

Authority for Requirement: DNR Construction Permit 93-A-110-P1

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 189.0

Associated Equipment

Associated Emission Unit ID Numbers: 5215.0
Emissions Control Equipment ID Number: 5215-1
Emissions Control Equipment Description: Bin Vent Filter

Emission Unit vented through this Emission Point: 5215.0
Emission Unit Description: Power House Lime Silo System
Raw Material/Fuel: Lime
Rated Capacity: 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% [(1)]
Authority for Requirement: DNR Construction Permit 02-A-759
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. This standard is in lieu of an initial compliance test for PM_{10}.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.51 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-759

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-759
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 49
Stack Opening (inches, dia.): 6 x 8
Exhaust Flowrate (scfm): 750
Exhaust Temperature (^{o}F): 70
Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 02-A-759

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

Monitoring Requirements

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 191.0

Associated Equipment

Associated Emission Unit ID Numbers: 5220.0
Emissions Control Equipment ID Number: 5220-1
Emissions Control Equipment Description: Vent Sock

Emission Unit vented through this Emission Point: 5220.0
Emission Unit Description: Power House Bulk Salt Tank
Raw Material/Fuel: Bulk Salt
Rated Capacity: 22.5 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): No Visible Emissions[(1)]
Authority for Requirement: DNR Construction Permit 02-A-787
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. This standard is in lieu of an initial compliance test for PM_{10}.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.21 lb/hr
Authority for Requirement: DNR Construction Permit 02-A-787

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 02-A-787
567 IAC 23.4(7)

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 25
Stack Opening (inches, dia.): 24
Exhaust Flowrate (scfm): 500
Exhaust Temperature (^{o}F): 80
Discharge Style: Obstructed Vertical
Authority for Requirement: DNR Construction Permit 02-A-787

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

Monitoring Requirements

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

Opacity Monitoring

Opacity shall be observed weekly or when the unit is operating, a maximum of once per calendar week, to ensure no visible emissions during the material handling operation of the unit. 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 opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the 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: See Table: Anaerobic Digesters

Associated Equipment
Associated Emission Unit ID Numbers: See Table: Anaerobic Digesters
Emissions Control Equipment ID Number: CE6213-1; CE6213-2
Emissions Control Equipment Description: Thiopaq Biogas Desulfurization Process (CE6213-1); Biogas Flare (CE6213-2)

Table: Anaerobic Digesters

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material	Maximum Storage Capacity (million gallons)	Maximum Capacity (gal/hr)	Maximum Capacity (scf biogas/min)
548.0	6210.0	WWTP Anaerobic Digester #1	Process Wastewater	3.0	39,000	1500
	6211.0	WWTP Anaerobic Digester #2		3.0	39,000	
	6212.0	WWTP Anaerobic Digester #3		3.0	39,000	
	6214.0	WWTP Anaerobic Digester #4		3.3	39,000	

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 11-A-661-S2
567 IAC 23.3(2)"d"

[(1)] If visible emissions are observed other than start-up, shut-down or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.26 lb/hr [(2)]
Authority for Requirement: DNR Construction Permit 11-A-661-S2

[(2)] Established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 11-A-661-S2
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 1.0 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permit 11-A-661-S2
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 4.5 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-661-S2

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.0 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-661-S2

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 22.5 lb/hr
Authority for Requirement: DNR Construction Permit 11-A-661-S2

Pollutant: Hydrogen Sulfide (H_2S)
Emission Limit(s): [3]
Authority for Requirement: DNR Construction Permit 11-A-661-S2

[3]A limit of 50 ppm, 3-hour rolling average, has been established for the outlet of the Thiopaq Biogas Desulfurization Process, CE-6213-1. This limit does not correspond to the outlet of this emission point. Limit was requested by the facility as the basis of the SO_2 emission limits for the all of the equipment that is able to combust the anaerobic digester biogas.

Operational Limits & Requirements

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

NSPS and NESHAP Applicability

These emission units are subject to 40 CFR Part 63, Subpart A – *General Provisions* (40 CFR §63.1 through 40 CFR §63.15) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) and Subpart FFFF – *Miscellaneous Organic Chemical Manufacturing* (40 CFR §63.2430 through 40 CFR §63.2550) and are also subject to the requirements of 567 IAC 23.1(4)”cf”.

Authority for Requirement: DNR Construction Permit 11-A-661-S2
40 CFR Part 63 Subpart FFFF
567 IAC 23.1(4)"cf"
40 CFR Part 63 Subpart A
567 IAC 23.1(4)

Operating Limits

A. The flare shall combust a maximum of 788.4 million standard cubic feet (MMscf) per 12-month rolling period.
B. This emission unit is subject to all applicable operating limits set forth in NESHAP Subparts A (40 CFR §63.1 through 40 CFR §63.15) and FFFF (40 CFR §63.2430 through 40 CFR §63.2550).
C. The facility shall comply with all applicable requirements for each wastewater stream and liquid stream in open systems according to the provisions in 40 CFR §63.2485.
D. The anaerobic digesters shall be controlled by the Thiopaq Biogas Desulfurization Process, CE 6213-1, and either the biogas flare, CE 6213-2, or by sending the biogas to be combusted in plant operations which allow the combustion of biogas. The anaerobic digesters shall at no time operate uncontrolled.
E. The exhaust of the Thiopaq Biogas Desulfurization Process, CE 6213-1, shall contain hydrogen sulfide in a concentration less than or equal to 50 ppm_v per 3-hour rolling average.
F. The Thiopaq Biogas Desulfurization Scrubber (part of CE 6213-1) scrubbant flowrate shall be maintained at or above 400 gallons per minute.
G. The pressure drop across the Thiopaq Biogas Desulfurization Scrubber (part of CE 6213-1) shall be maintained between 0.1 and 7.0 inches of water.
H. The owner or operator shall develop an operating and maintenance plan for the biogas flare and Thiopaq Biogas Desulfurization Scrubber, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. This operating and maintenance plan for the flare shall at a minimum include monthly testing of the pilot flame and shall be kept on file at the facility.
I. The owner or operator shall shut down the emission points and flares associated with EP 542.0 (Construction Permit 04-A-548) and EP 543.0 (Construction Permit 04-A-549) upon start up of the biogas flare (CE 6213-2) associated with emission point EP 548.0. The emission points and flares associated with EP 542.0 (Construction Permit 04-A-548) and EP 543.0 (Construction Permit 04-A-549) shall be permanently shut down (i.e. natural gas/propane assist lines removed, connections to anaerobic digesters removed) within one month of the start up of the biogas flare (CE 6213-2).

Reporting & Record keeping

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

A. The owner or operator shall monitor and record the amount of biogas in MMscf, that is combusted in the flare, CE 6213-2 each time it is operated. Calculate and record 12-month rolling totals.
B. These emission units are subject to all applicable recordkeeping, notification, and reporting requirements as set forth in NESHAP Subparts A and FFFF.
C. The owner or operator shall properly operate and maintain equipment to continuously monitor the hydrogen sulfide concentration, in ppmv, in the biogas in the outlet of the Thiopaq Biogas Desulfurization Scrubber. The monitoring shall be performed prior to combining the biogas with any other material. The monitoring devices and any recorders

shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

D. The owner or operator shall maintain a continuous record of the 3-hour average hydrogen sulfide concentration in the biogas in the outlet of the Thiopaq Biogas Desulfurization Scrubber, in ppmv. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.
E. The owner or operator shall properly operate and maintain equipment to continuously monitor the Thiopaq Biogas Desulfurization Scrubber scrubbant flowrate. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
F. The owner or operator shall maintain a continuous record of the Thiopaq Biogas Desulfurization Scrubber scrubbant flowrate, in gallons per minute. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.
G. The owner or operator shall properly operate and maintain equipment to monitor the Thiopaq Biogas Desulfurization Scrubber pressure drop. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
H. The owner or operator shall collect and record the pressure drop across the Thiopaq Biogas Desulfurization Scrubber, in inches of water, on a daily basis. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.
I. The owner operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.
J. The owner or operator shall maintain a record of the startup date of EP 548.0 and the date EP 542.0 and EP 543.0 are permanently shut down.

Authority for Requirement: DNR Construction Permit 11-A-661-S2

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 35
Stack Opening (inches, dia.): 24
Exhaust Flowrate (scfm): 500 to 1,500
Exhaust Temperature (^{o}F): 1,400
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 11-A-661-S2

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

submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 548.1

Associated Equipment

Associated Emission Unit ID Number: 6213.0

Emission Units vented through this Emission Point: 6213.0
Emission Unit Description: Biogas Desulfurization System Aerobic Bioreactor
Raw Material/Fuel: Biogas
Rated Capacity: 1500 cf/min

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits at this time.

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

Operating Limits

A. The owner or operator shall develop an operating and maintenance plan for the aerobic bioreactor, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. This operating and maintenance plan shall be kept on file at the facility.

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

A. The owner operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the aerobic bioreactor.

Authority for Requirement: DNR Construction Permit 11-A-622

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 26
Stack Opening (inches, dia.): 8
Exhaust Flowrate (scfm): 250
Exhaust Temperature (^{o}F): 90
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 11-A-622

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 470.0

Associated Equipment

Associated Emission Unit ID Number: 4901.0

Emission Units vented through this Emission Point: 4901.0
Emission Unit Description: Diesel Firewater Pump
Raw Material/Fuel: Diesel fuel
Rated Capacity: 302 BHP

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

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

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

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 2.5 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"b"(2)

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

NSPS and NESHAP Applicability

This 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.

Compliance Date
Per 40 CFR 63.6595(a)(1) you must comply with the provisions of Subpart ZZZZ that are applicable by May 3, 2013.

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

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

Operating Limits 40 CFR 63.6640(f)

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

Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the 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"

Operating Limits

Process throughput:

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

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

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

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)

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

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

G1. Duty to Comply

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

G2. Permit Expiration

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

G3. Certification Requirement for Title V Related Documents

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

G4. Annual Compliance Certification

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

G5. Semi-Annual Monitoring Report

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

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
    a. Form 1.0 "Facility Identification";
    b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
    c. Form 5.0 "Title V annual emissions summary/fee"; and
    d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
    a. Form 1.0 "Facility Identification";
    b. Form 5.0 "Title V annual emissions summary/fee";
    c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.

6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

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

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

G8. Duty to Provide Information

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

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:
1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:

a. The date, place and time of sampling or measurements
b. The date the analyses were performed.
c. The company or entity that performed the analyses.
d. The analytical techniques or methods used.
e. The results of such analyses; and
f. The operating conditions as existing at the time of sampling or measurement.
g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)

2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.
b. Maintain a log at the permitted facility of the scenario under which it is operating.
c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.
Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.
1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
b. Compliance test methods specified in 567 Chapter 25; or
c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or
b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification
If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release
The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

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

2. Excess Emissions Reporting

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

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department

within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

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

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

G15. Permit Deviation Reporting Requirements

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

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

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of

performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

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

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

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.

b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);

c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);

d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));.

e. The changes comply with all applicable requirements.

f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,

ii. The date on which the change will occur,

iii. Any change in emission as a result of that change,

iv. The pollutants emitted subject to the emissions trade

v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that does any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Title V Permit Modification.

a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:

i. Do not violate any applicable requirement;

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;

iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

ii. The permittee's suggested draft permit;

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

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

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

G19. Duty to Obtain Construction Permits

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

G20. Asbestos

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

G21. Open Burning
The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*
G22. Acid Rain (Title IV) Emissions Allowances
The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements
1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

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

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

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air

conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the

permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit; or

b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.
Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 725-9545

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.
567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes
The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.
567 IAC 26.1(1)

G32. Contacts List
The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
U.S. EPA Region 7
Air Permits and Compliance Branch
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 725-9500

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
7900 Hickman Road, Suite #200
Windsor Heights, IA 50324
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Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

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

Linn County Public Health
Air Quality Branch
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

Appendix A: Web Link to New Source Performance Standards (NSPS) And National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

A. 40 CFR Part 60 Subpart A- General Provisions
http://www.ecfr.gov/cgi-bin/text-idx?SID=143a70b4d7d8bb80b33fa65c6f4c5c37&node=sp40.7.60.a&rgn=div6

B. 40 CFR Part 60 Subpart Db- Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
http://www.ecfr.gov/cgi-bin/text-idx?SID=ade8c92d153ce657a1429e6ed6518b5f&mc=true&node=sp40.7.60.d_0b&rgn=div6

C. 40 CFR Part 60 Subpart Dc- Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.7.60.d_0c

D. 40 CFR Part 60 Subpart Kb- Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced After July 23, 1984
http://www.ecfr.gov/cgi-bin/text-idx?SID=e8cf79368b367dc73ef812d6e6dca8dc&node=sp40.7.60.k_0b&rgn=div6

E. 40 CFR Part 60 Subpart DD – Standards of Performance for Grain Elevators.
http://www.ecfr.gov/cgi-bin/text-idx?SID=f0f2f51bdfff1f9ac5804089d507c085&mc=true&node=sp40.7.60.dd&rgn=div6

F. 40 CFR Part 60 Subpart VV- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
http://www.ecfr.gov/cgi-bin/text-idx?SID=e8cf79368b367dc73ef812d6e6dca8dc&node=sp40.7.60.vv&rgn=div6

G. 40 CFR Part 63 Subpart A- General Provisions
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.10.63.a

H. 40 CFR 63 Subpart FFFF – Standards of Performance for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing.
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.13.63.ffff

I. 40 CFR Part 63 Subpart ZZZZ- Standards of Performance for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.zzzz

J. 40 CFR Part 63 Subpart DDDDD – Standard of Performance for Hazardous Air Pollutants for Industrial, Commercial, And Institutional Boilers And Process Heaters. http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&r=SUBPART&n=sp40.14.63.ddddd