# Iowa Department of Natural Resources Title V Operating Permit

Name of Permitted Facility: ADM Corn Processing

Facility Location: 1350 Waconia Avenue SW

Cedar Rapids, IA 52404

Air Quality Operating Permit Number: 08-TV-004R1-M002

**Expiration Date: January 5, 2022** 

Permit Renewal Application Deadline: July 5, 2021

**EIQ Number: 92-9062** 

Facility File Number: 57-01-080

#### **Responsible Official**

Name: Brian Mullins Title: Plant Manager

Mailing Address: 1350 Waconia Ave. SW., Cedar Rapids, Iowa 52404

Phone #: 319-398-0721

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

Name: Rich Stephens

**Title: Environmental Coordinator** 

Mailing Address: 1350 Waconia Ave. SW, Cedar Rapids, Iowa 52404

Phone #: 319-398-0735

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. This facility and Bio Springer North America Corporation (Plant No. 57-01-226), LeSaffre Blending Plant (Plant No. 57-01-226), Red Star Yeast Company, LLC (Plant No. 57-01-226), and Vantage Corn Processing (Plant No. 57-01-246) are considered one stationary source. Four Title V Permits have been issued for the five facilities. This permit is for ADM Corn Processing. Other permits have been issued for Bio Springer (Permit No. 12-TV-005R1), LeSaffre and Red Star (Permit No. 10-TV-006R1), and Vantage Corn Processors (Permit No. 08-TV-007R1-M001).

#### For the Director of the Department of Natural Resources

Lori Hanson, Supervisor of Air Operating Permits Section

Date

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#### **Abbreviations**

acfm actual cubic feet per minute

AQD Air Quality Division (Linn County)
APCO Air Pollution Control Officer
CDA completely denatured alcohol

CFBC Circulating Fluidized Bed Combustion

CFR Code of Federal Regulation

CE control equipment

CEM continuous emission monitor

D.C. dust collector oF degrees Fahrenheit

EIQ emissions inventory questionnaire

EP emission point EU emission unit

gr./dscf grains per dry standard cubic foot gr./100 cf grains per one hundred cubic feet

IAC Iowa Administrative Code

IDNR Iowa Department of Natural Resources

LCPH Linn County Public Health
LCO Linn County Ordinance
MR mechanical recompression
MVAC motor vehicle air conditioner

NAICS North American Industry Classification System

NSPS New Source Performance Standard

ppmv parts per million by volume

PSD Prevention of Significant Deterioration

lb./hr pounds per hour

lb./MMBtu pounds per million British thermal units

RTO Regenerative Thermal Oxidizer
SCC Source Classification Codes
scfm standard cubic feet per minute
SEP Supplemental Environmental Project
SIC Standard Industrial Classification

SNCR selective non-catalytic reduction

TPY tons per year

USEPA United States Environmental Protection Agency

**Pollutants** 

PM particulate matter

PM<sub>10</sub> particulate matter ten microns or less in diameter

SO<sub>2</sub> sulfur dioxide NO<sub>x</sub> nitrogen oxides

VOC volatile organic compound

CO carbon monoxide HAP hazardous air pollutant

## I. Facility Description and Equipment List

Facility Name: ADM Corn Processing Permit Number: 08-TV-004R1-M002

Facility Description: Corn Wet Milling Plant (SIC 2046)

### **Equipment List**

Emission	Emission		LCPH
Point	Unit	<b>Emission Unit Description</b>	Permit
Number	Number		Numbers
ELEVATOR			
SEP-008	EU-8	Corn Truck Receiving	6051 / 6148R1
SEP-008	EU-8B	400 Leg	6051 / 6148R1
SEP-008	EU-8C	Transfer Conveyor	6051 / 6148R1
SEP-008	EU-10A	60% Gluten Meal Cooler #1	6051 / 6148R1
SEP-008	EU-10B	60% Gluten Meal Cooler #2	6051 / 6148R1
SEP-008	EU-22	Corn Cleaners System B	6051 / 6148R1
SEP-008	EU-22B	Cleaner Leg	6051 / 6148R1
SEP-008	EU-23	Cracked Corn Receiving	6051 / 6148R1
SEP-008	EU-40	Germ to Storage Conveying	6051 / 6148R1
SEP-008	EU-48	Gluten Meal Milling	6051 / 6148R1
SEP-008	EU-49	Gluten Meal Storage	6051 / 6148R1
SEP-008	EU-65	Cleaner House System A	6051 / 6148R1
SEP-008	EU-66	Cleaner House System B	6051 / 6148R1
SEP-008	EU-86A	Gluten Truck Loading	6051 / 6148R1
SEP-008	EU-86B	Gluten Rail Loading	6051 / 6148R1
SEP-008	EU-180B	Steel Tank Leg	6051 / 6148R1
SEP-008	EU-180C	Silo to Steeps Drag Conveyor	6051 / 6148R1
SEP-008	EU-180D	Silo to Steeps Drag Conveyor	6051 / 6148R1
SEP-008	EU-180E	Steep House Corn Hopper	6051 / 6148R1
SEP-008	EU-181	Rail Dump	6051 / 6148R1
SEP-008	EU-181B	200 Leg	6051 / 6148R1
SEP-061	EU-61	#1 Steel Corn Storage Tank	6210 / 6051
SEP-062	EU-62	#2 Steel Corn Storage Tank	6211 / 6052
SEP-063	EU-63	#3 Steel Corn Storage Tank	6212 / 6053
SEP-064	EU-64	#4 Steel Corn Storage Tank	6213 / 6054
	EU-180	Bulk Weigh Scale	
SEP-180	EU-180B	Steel Tank Leg	6040 / 6109
SEP-180 SEP-181	EU-180C	Silo to Steeps Drag Conveyor	6041 / 6110
SEF-101	EU-180D	Silo to Steeps Drag Conveyor	0041 / 0110
	EU-180E	Steep House Corn Hopper	

Emission Point Number	Emission Unit Number	Emission Unit Description	LCPH Permit Numbers
rumber	EU-181	Rail Dump	Tumbers
	EU-181B	200 Leg	
	EU-161B	Corn Truck Receiving	
	EU-8B	400 Leg	
	EU-8C	Transfer Conveyor	
	EU-10A	60% Gluten Meal Cooler #1	
	EU-10A EU-10B	60% Gluten Meal Cooler #2	
	EU-10B	Corn Cleaners System B	
SEP-180	EU-22B	Cleaner Leg	6040 / 6109
SEP-181	<b>—</b>	<u> </u>	6041 / 6110
	EU-23	Cracked Corn Receiving	
	EU-40 EU-48	Germ to Storage Conveying	
		Gluten Meal Milling	
	EU-49	Gluten Meal Storage	
	EU-65	Cleaner House System A	
	EU-66	Cleaner House System B	
	EU-86A	Gluten Truck Loading	
	EU-86B	Gluten Rail Loading	
MILL			
SEP-083	EU-083A	Wet Corn Hopper	4828 / 5712
SEP-083	EU-083A	First Grind Tank	4828 / 5712
SEP-083	EU-083D EU-083C	MR Steepwater Evaporators	4828 / 5712
SEP-083	EU-375	Steep Tank 1E	4828 / 5712
SEP-083	EU-376	Steep Tank 1E Steep Tank 2E	4828 / 5712
SEP-083	EU-377	Steep Tank 3E	4828 / 5712
SEP-083	EU-378	Steep Tank 10E	4828 / 5712
SEP-083	EU-378	Steep Tank 10E Steep Tank 11E	4828 / 5712
SEP-083	EU-380	Steep Tank 12E	4828 / 5712
SEP-083	EU-380	Steep Tank 1F	4828 / 5712
SEP-083	EU-381	Steep Tank 17 Steep Tank 2F	4828 / 5712
SEP-083	EU-383	Steep Tank 3F	4828 / 5712
SEP-083	EU-384	Steep Tank 10F	4828 / 5712
SEP-083	EU-385	Steep Tank 101 Steep Tank 11F	4828 / 5712
SEP-083	EU-386	Steep Tank 117 Steep Tank 12F	4828 / 5712
SEP-201	EU-201A	Heavy Gluten Storage Tank	4829 / 6111
SEP-201	EU-201A EU-201B	Mill Water Storage Tank	4829 / 6111
SEP-201	EU-201B EU-201C	Light Steep Water Storage	4829 / 6111
SEP-201 SEP-204	EU-201C	Biomass Storage Tank	4830 / 6150
SEP-204 SEP-205	EU-204 EU-205	Heavy Steepwater Tank	4831 / 6151
SEP-205 SEP-206	EU-203 EU-206	Intermediate Steepwater Storage Tank	4832 / 6152
SEP-200 SEP-210	EU-206 EU-046	Sulfur Burning System	5829 / 6337
	EU-046 EU-210		
SEP-210		Millhouse SO <sub>2</sub> Scrubber	5829 / 6337
SEP-307	EU-307	Steep Tank 1A	5575 / 5812

Emission	Emission		LCPH
Point	Unit	<b>Emission Unit Description</b>	Permit
Number	Number	and the same pro-	Numbers
SEP-308	EU-308	Steep Tank 2A	5576 / 5813
SEP-309	EU-309	Steep Tank 3A	5577 / 5814
SEP-310	EU-310	Steep Tank 4A	5578 / 5815
SEP-311	EU-311	Steep Tank 5A	5579 / 5816
SEP-312	EU-312	Steep Tank 6A	5580 / 5817
SEP-313	EU-313	Steep Tank 7A	5581 / 5818
SEP-314	EU-314	Steep Tank 8A	5582 / 5819
SEP-315	EU-315	Steep Tank 9A	5583 / 5820
SEP-316	EU-316	Steep Tank 10A	5584 / 5821
SEP-317	EU-317	Steep Tank 11A	5585 / 5822
SEP-318	EU-318	Steep Tank 1111 Steep Tank 12A	5586 / 5823
SEP-319	EU-319	Steep Tank 13A	5587 / 5824
SEP-320	EU-320	Steep Tank 14A	5588 / 5825
SEP-321	EU-321	Steep Tank 15A	5589 / 5826
SEP-322	EU-322	Steep Tank 16A	5590 / 5827
SEP-323	EU-323	Steep Tank 17A	5591 / 5828
SEP-324	EU-324	Steep Tank 17A Steep Tank 18A	5592 / 5829
SEP-325	EU-325	Steep Tank 1B	5593 / 5830
SEP-326	EU-327	Steep Tank 1B  Steep Tank 2B	5594 / 5831
SEP-327	EU-327	Steep Tank 3B	5595 / 5832
SEP-328	EU-328	Steep Tank 4B	5596 / 5833
SEP-329	EU-329	Steep Tank 4B  Steep Tank 5B	5597 / 5834
SEP-330	EU-329	Steep Tank 6B	5598 / 5835
SEP-331	EU-331	Steep Tank 0B Steep Tank 7B	5599 / 5836
SEP-331 SEP-332	EU-331	Steep Tank 7B Steep Tank 8B	5600 / 5837
SEP-332 SEP-333	EU-333	Steep Tank 8B  Steep Tank 9B	5601 / 5838
SEP-334	EU-334	Steep Tank 9B  Steep Tank 10B	5602 / 5839
SEP-335	EU-335	Steep Tank 10B Steep Tank 11B	5603 / 5840
SEP-336	EU-336	Steep Tank 11B Steep Tank 12B	5604 / 5841
SEP-337	EU-337	Steep Tank 12B Steep Tank 13B	5605 / 5842
SEP-338	1	Steep Tank 13B Steep Tank 14B	
SEP-338 SEP-339	EU-338		5606 / 5843
	EU-339	Steep Tank 15B	5607 / 5844
SEP-340	EU-340	Steep Tank 16B	5608 / 5845
SEP-341	EU-341	Steep Tank 17B	5609 / 5846
SEP-342	EU-342	Steep Tank 18B	5610 / 5847
SEP-343	EU-343	Steep Tank 1C	5611 / 5848
SEP-344	EU-344	Steep Tank 2C	5612 / 5849
SEP-345	EU-345	Steep Tank 3C	5613 / 5850
SEP-346	EU-346	Steep Tank 4C	5614 / 5851
SEP-347	EU-347	Steep Tank 5C	5615 / 5852
SEP-348	EU-348	Steep Tank 6C	5616 / 5853
SEP-349	EU-349	Steep Tank 7C	5617 / 5854
SEP-350	EU-350	Steep Tank 8C	5618 / 5855

Emission	Emission		LCPH
Point	Unit	<b>Emission Unit Description</b>	Permit
Number	Number	-	Numbers
SEP-351	EU-351	Steep Tank 9C	5619 / 5856
SEP-352	EU-352	Steep Tank 10C	5620 / 5857
SEP-353	EU-353	Steep Tank 11C	5621 / 5858
SEP-354	EU-354	Steep Tank 12C	5622 / 5859
SEP-355	EU-355	Steep Tank 13C	5623 / 5860
SEP-356	EU-356	Steep Tank 14C	5624 / 5861
SEP-357	EU-357	Steep Tank 15C	5625 / 5862
SEP-358	EU-358	Steep Tank 16C	5626 / 5863
SEP-359	EU-359	Steep Tank 17C	5627 / 5864
SEP-360	EU-360	Steep Tank 18C	5628 / 5865
SEP-361	EU-361	Steep Tank 1D	5629 / 5866
SEP-362	EU-362	Steep Tank 2D	5630 / 5867
SEP-363	EU-363	Steep Tank 3D	5631 / 5868
SEP-364	EU-364	Steep Tank 4D	5632 / 5869
SEP-365	EU-365	Steep Tank 5D	5633 / 5870
SEP-366	EU-366	Steep Tank 6D	5634 / 5871
SEP-367	EU-367	Steep Tank 7D	5635 / 5872
SEP-368	EU-368	Steep Tank 8D	5636 / 5873
SEP-369	EU-369	Steep Tank 9D	5637 / 5874
SEP-370	EU-370	Steep Tank 10D	5638 / 5875
SEP-371	EU-371	Steep Tank 11D	5639 / 5876
SEP-372	EU-372	Steep Tank 12D	5640 / 5877
SEP-373	EU-373	Steep Tank 13D	5641 / 5878
SEP-374	EU-374	Steep Tank 14D	5642 / 5879
60% GLUTE	EN MEAL		
	EU-011A	Gluten Meal Dryer #1	
	EU-011B	Gluten Meal Dryer #1 – Natural Gas	
	EU-018A	Gluten Meal Dryer #2	
	EU-018B	Gluten Meal Dryer #2 – Natural Gas	
	EU-019A	Fiber Feed Dryer #1	
	EU-019B	Fiber Feed Dryer #1 – Natural Gas	
	EU-030A	Fiber Feed Dryer #2	
SEP-190	EU-030B	Fiber Feed Dryer #2 – Natural Gas	4900 / 5783
SEP-191	EU-043A	Fiber Feed Dryer #3	4901 / 5784
SEP-192	EU-043B	Fiber Feed Dryer #3 – Natural Gas	4902 / 5785
	EU-	Fiber Feed Dryer #4	
	005CA		
	EU-005CB	Fiber Feed Dryer #4 – Natural Gas	
	EU-	Fiber Feed Dryer #5	
	005DA		
	EU-	Fiber Feed Dryer #5 – Natural Gas	
	005DB		
	1	ı	1

Emission	Emission		LCPH
Point	Unit	Emission Unit Description	Permit
Number	Number	1	Numbers
SEP-190	EU-190	RTO #1	4900 / 5783
SEP-191	EU-191A	RTO #2	4901 / 5784
SEP-191	EU-191B	RTO #3	4901 / 5784
SEP-192	EU-192A	RTO #4	4902 / 5785
SEP-192	EU-192B	RTO #5	4902 / 5785
SEP-011	EU-11A	#1 Gluten Meal Dryer Bypass	5346 / 5220R1
SEP-011	EU-11B	#1 Gluten Meal Dryer Bypass – Natural Gas	5346 / 5220R1
SEP-013	EU-13	60% Gluten Meal Recycle #3	5808 / 5768
SEP-018	EU-18A	#2 Gluten Meal Dryer Bypass	5347 / 5221
SEP-018	EU-18B	#2 Gluten Meal Dryer Bypass – Natural Gas	5347 / 5221
SEP-050	EU-50	60% Gluten Meal Recycle #2	5809 / 5769
SEP-051	EU-51	60% Gluten Meal Recycle #2	4826 / 5331
SEP-226	EU-226	Gluten Filters 1-15, 19-22 and	4839 / 5485
SE1 -220	EO-220	Vacuum Pumps 1-4	4039/3403
SEP-230	EU-230	#16, #17, and #18 Gluten Filter Pumps	4838 / 5486
SEF-230	EU-230	#10, #17, and #18 Officen Pinter Pumps	4030 / 3400
21% FIBER	FEED 		
SEP-019	EU-19A	#1 Fiber Feed Dryer Bypass	5348 / 5222
SEP-019	EU-19B	#1 Fiber Feed Dryer Bypass – Natural Gas	5348 / 5222
SEP-026	EU-19B	#4 Fiber Feed Dryer Bypass – Natural Gas	5349 / 5223
SEF-020	005CA	#4 Ploet Feed Diyer Bypass	334973223
SEP-026	EU-005CB	#4 Fiber Feed Dryer Bypass – Natural Gas	5349 / 5223
SEP-027	EU-	#5 Fiber Feed Dryer Bypass	5350 / 5224
321 027	005DA	The field field by the field by the field field by the fi	
SEP-027	EU-	#5 Fiber Feed Dryer Bypass – Natural Gas	5350 / 5224
	005DB	J J1	
SEP-030	EU-30A	#2 Fiber Feed Dryer Bypass	5351 / 5225
SEP-030	EU-30B	#2 Fiber Feed Dryer Bypass – Natural Gas	5351 / 5225
SEP-032	EU-32	21% Gluten Feed Stedman Mill D.C.	4820 / 0
SEP-043	EU-43A	#3 Fiber Feed Dryer Bypass	5352 / 5226
SEP-043	EU-43B	#3 Fiber Feed Dryer Bypass – Natural Gas	5352 / 5226
SEP-211	EU-211	Feedhouse Miscellaneous Fugitive Emission	4841 / 6331
		Source	
SEP-271	EU-32A	Stedman Mill	6188 / 6529
SEP-271	EU-32B	Stedman Mill	6188 / 6529
SEP-271	EU-32C	Stedman Mill	6188 / 6529
SEP-271	EU-32D	Stedman Mill	6188 / 6529
SEP-271	EU-32E	Stedman Mill	6188 / 6529
SEP-271	EU-32F	Stedman Mill	6188 / 6529
SEP-271	EU-32G	Stedman Mill	6188 / 6529
SEP-271	EU-32H	Stedman Mill	6188 / 6529
SEP-271	EU-271	#1 Vertical Fiber Cooler	6188 / 6529
SLI 2/1	20 2/1	" Total Tion Cools	010070327
	<u> </u>		<u> </u>

Emission	Emission		LCPH
Point	Unit	<b>Emission Unit Description</b>	Permit
Number	Number	•	Numbers
GERM			
SEP-006	EU-6	#2 Fluid Bed Germ Dryer	4815 / 5974
SEP-015	EU-15	#1 Fluid Bed Germ Dryer	4541 / 4713
SEP-016	EU-12	Fiber Feed – Wet Feed Tank	4818 / 5782
SEP-016	EU-16A	#1 Steam Tube Germ Dryer	4818 / 5782
SEP-016	EU-16B	#2 Steam Tube Germ Dryer	4818 / 5782
SEP-016	EU-16C	#3 Steam Tube Germ Dryer	4818 / 5782
SEP-016	EU-16D	#4 Steam Tube Germ Dryer	4818 / 5782
SEP-021	EU-21	Germ Cooler	4819 / 6149
PELLET MI	LL		
SEP- 388	EU-1	#4 Pellet Cooler	5037 / 6077
SEP- 388	EU-29	#1 Pellet Cooler	5037 / 6077
SEP- 388	EU-36	Pellet Mill Dust Collection	5037 / 6077
SEP- 388	EU-38	#2 Pellet Cooler	5037 / 6077
SEP- 388	EU-39	#3 Pellet Cooler	5037 / 6077
ALCOHOL			
SEP-055	EU-55	Fermenter Vent / CO <sub>2</sub> Scrubber	6443 / 6507
SEP-057	EU-57	Yeast Propagator Tank #1	4676 / 5481
SEP-058	EU-58	Yeast Propagator Tank #2	4677 / 5482
SEP-059	EU-59	Yeast Propagator Tank #3	4678 / 5483
SEP-060	EU-60	Yeast Propagator Tank #4	4679 / 5484
SEP-069	EU-69	190 Product Scrubbing System	6426 / 6460
SEP-070	EU-70	200 Product Scrubbing System	6057 / 6333
SEP-071	EU-71	# 1 Alcohol Storage Tank	4684 / 5295
SEP-072	EU-72	# 2 Alcohol Storage Tank	4685 / 5296
SEP-073	EU-73	# 3 Alcohol Storage Tank	4686 / 5297
SEP-074	EU-74	Denaturant Storage Tank (Gasoline)	4687 / 5298
SEP-075	EU-75	#2 Hi-Wine Transfer Tank	4688 / 5299
SEP-076	EU-76A	Alcohol Loadout	4689 / 5017
SEP-076	EU-76B	Alcohol Loadout Flare – Natural Gas	4689 / 5017
SEP-077	EU-77	Corrosion Inhibitor Tank Vent	4690 / 5300
SEP-080	EU-80	#3 Hi-Wine Process Tank	4691 / 5301
SEP-081	EU-81	Fusel Oil Tank	4692 / 5302
SEP-082	EU-82	190 Proof Storage Tank	4693 / 5303
SEP-250	EU-250	Alcohol Collection Blower #1	6505 / 6334
SEP-251	EU-251	Alcohol Collection Blower #2	6506 / 6335
SEP-252	EU-252	Alcohol Collection Blower #3	6507 / 6336
	ANUFACTU		
SEP-002	EU-2A	Starch Drying – Spray Dryer	3446 / 3497
SEP-002	EU-2B	Start Drying – Natural Gas	3446 / 3497

Emission	Emission		LCPH
Point	Unit	<b>Emission Unit Description</b>	Permit
Number	Number	•	Numbers
SEP-003	EU-3	Corn Starch Loadout #1	3557 / 3498
SEP-004	EU-4	Corn Starch Loadout #2	3558 / 3499
SEP-007	EU-7	Starch Transfer and Loadout	3559 / 3500
MALTODEX	XTRIN		•
SEP-120	EU-120	Maltodextrin Storage Bin #6	4513 / 5076
SEP-122	EU-122A	Maltodextrin Spray Dryer	5330 / 5585
SEP-122	EU-122B	Maltodextrin Spray Dryer – Natural Gas	5330 / 5585
SEP-123	EU-123	Maltodextrin Storage Bin #5	4514 / 5077
SEP-124	EU-124	Maltodextrin Packaging Transfer Line	5025 / 5320
SEP-125	EU-125	Maltodextrin Vacuum / Reprocess System	3980 / 4033
SEP-126	EU-126	Maltodextrin Storage Bin #4	4515 / 5078
SEP-127	EU-127	Maltodextrin Storage Bin #3	4516 / 5079
SEP-128	EU-128	Maltodextrin Storage Bin #2	4517 / 5080
SEP-129	EU-129	Maltodextrin Packaging System	5026 / 5321
SEP-130	EU-130	Maltodextrin Storage Bin #1	4518 / 5081
		8	
FRUCTOSE			
SEP-153	EU-153A	Fructose East MR Evaporator Vent	5681 / 5478
SYRUP / RE	FINERY		
SEP-034	EU-34A	Carbon Furnace	4664 / 5082
SEP-034	EU-34B	Carbon Furnace – Natural Gas	4664 / 5082
SEP-112	EU-112	Refinery Acid Tank Scrubber System	4490 / 4701
SEP-114	EU-114A	Carbon Furnace #2	4665 / 5083
SEP-114	EU-114B	Carbon Furnace #2 – Natural Gas	4665 / 5083
SEP-387	EU-387	Refinery Heavy Steepwater Tank	4842 / 6125
UTILITIES			
SEP-091	EU-91	Dry Starch Diesel Generator	4706 / 4847
SEP-092	EU-92	#3 Cooling Tower Emergency Generator	4707 / 4848
SEP-093	EU-93	Alcohol / Waste Treatment Emergency	4708 / 4849
		Generator	
SEP-094	EU-94	Fructose Emergency Generator	4709 / 4850
	EU-95	North Corn Plant Diesel Fire Pump	Exempt
	EU-96	South Corn Plant Diesel Fire Pump	Exempt
SEP-097	EU-97	Boiler Room #2 Emergency Diesel Generator	4710 / 4851
SEP-170	EU-170A	Fructose Cooling Tower #2 Cell A	5550 / 5767
SEP-170	EU-170B	Fructose Cooling Tower #2 Cell B	5550 / 5767
SEP-170	EU-170C	Fructose Cooling Tower #2 Cell C	5550 / 5767
SEP-170	EU-170D	Fructose Cooling Tower #2 Cell D	5550 / 5767
SEP-170	EU-170E	Fructose Cooling Tower #2 Cell E	5550 / 5767
SEP-516	EU-516	Co-Gen Emergency Generator	4711 / 4852

Emission	Emission		LCPH
Point	Unit	Emission Unit Description	Permit
Number	Number	E (C C D' 1E' D	Numbers
	EU-517	East Co-Gen Diesel Fire Pump	Exempt
GED 540	EU-518	West Co-Gen Diesel Fire Pump	Exempt
SEP-540	EU-540	Co-Gen 2 Emergency Diesel Generator	4712 / 4853
COCENTER	ATION DI ANI		
	ATION PLAN		5220 / 5700
SEP-459	EU-459	Natural Gas Fired Boiler #3	5238 / 5789
SEP-460	EU-460	Natural Gas Fired Boiler #2	5239 / 5790
SEP-501	EU-501A	Co-Gen Boiler #1 Bituminous Coal	6131 / 6267
SEP-501	EU-	Co-Gen Boiler #1 Natural Gas	6131 / 6267
	501AN		
SEP-501	EU-501AF	Co-Gen Boiler #1 Fuel Oil	6131 / 6267
SEP-501	EU-501B	Co-Gen Boiler #2 Bituminous Coal	6131 / 6267
SEP-501	EU-	Co-Gen Boiler #2 Natural Gas	6131 / 6267
_	501BN		
SEP-501	EU-501BF	Co-Gen Boiler #2 Fuel Oil	6131 / 6267
SEP-502	EU-502A	Co-Gen Boiler #3 Bituminous Coal	6132 / 6268
SEP-502	EU-	Co-Gen Boiler #3 Natural Gas	6132 / 6268
	502AN		
SEP-502	EU-502AF	Co-Gen Boiler #3 Fuel Oil	6132 / 6268
SEP-502	EU-502B	Co-Gen Boiler #4 Bituminous Coal	6132 / 6268
SEP-502	EU-	Co-Gen Boiler #4 Natural Gas	6132 / 6268
	502BN		
SEP-502	EU-502BF	Co-Gen Boiler #4 Fuel Oil	6132 / 6268
SEP-503	EU-503	Bunker Dust Collector	6163 / 6235
SEP-504	EU-504	Crusher Building Dust Collector System	5801 / 5970
SEP-505	EU-505	Limestone Unloading Dust Collector	5802 / 5971
SEP-506	EU-506	Fly Ash Conveying Dust Collector A	5803 / 5972
SEP-506	EU-507	Fly Ash Conveying Dust Collector B	5803 / 5972
SEP-506	EU-509	Bed Ash Conveying Dust Collector A	5803 / 5972
SEP-506	EU-510	Bed Ash Conveying Dust Collector B	5803 / 5972
SEP-506	EU-520	Fly Ash Conveying Dust Collector C	5803 / 5972
SEP-506	EU-541	Bed Ash Conveying Dust Collector C	5803 / 5972
SEP-508	EU-508	Fly Ash Silo Vent Dust Collector	2079 / 2008
SEP-511	EU-511	Bed Ash Silo Vent Dust Collector	2076 / 2006
SEP-512	EU-512	Transferring Limestone into Storage Dust	6730 / 6611
		Collector	
SEP-513	EU-513	Transferring Limestone into Storage Dust	6729 / 6612
		Collector	55. 551 <b>2</b>
SEP-514	EU-514	Coal Truck Dump Pit Dust Collector (South)	6108 / 6236
SEP-515	EU-515	Coal Truck Dump Pit Dust Collector (North)	6120 / 6237
SEP-521	EU-521	Co-Gen HCl and Neutralization Tanks	4943 / 5306
SEP-522	EU-522	Co-Gen Turbine Lube Oil Tanks 1-5	4092 / 4035
SEP-530	EU-530A	Co-Gen Boiler No. 5 Bituminous Coal	5096 / 5045

Emission	Emission		LCPH
Point	Unit	Emission Unit Description	Permit
Number	Number	_	Numbers
SEP-530	EU-	Co-Gen Boiler No. 5 Natural Gas	5096 / 5045
	530AN		
SEP-530	EU-530AF	Co-Gen Boiler No. 5 Fuel Oil	5096 / 5045
SEP-532	EU-532	Fly Ash Conveying System D	3735 / 4739
SEP-533	EU-533	Fly Ash Conveying System F	3734 / 4738
SEP-534	EU-534	Fly Ash Silo Vent	3733 / 4737
SEP-535	EU-535	Bed Ash Conveying System D	3732 / 4736
SEP-536	EU-536	Bed Ash Conveying System E	3732 / 4736
SEP-537	EU-537	Coal Bunker	5945 / 6055
SEP-538	EU-538	Bed Ash Silo Vent	3729 / 4733
SEP-539	EU-539	Co-Gen Turbine Lube Oil Tank No. 6	4093 / 4293
SEP-542	EU-542	Co-Gen Biomass Bin #1	5332 / 5479
SEP-543	EU-543	Co-Gen Biomass Bin #2	5333 / 5480
SEP-544	EU-544	Co-Gen Limestone Conveying Dust Collection	6284 / 6266
BULK CHEN	MICALS		
SEP-009	EU-9	Soda Ash Slur O Lyzer	4448 / 4700
SEP-020	EU-20	Hydrochloric Acid Storage Vent	2107 / 2025
SEP-033	EU-33	Bulk Precoat System	3981 / 4034
SEP-165	EU-165	Plate Wash Tanks	4283 / 4336
WASTE TRI	EATMENT		
SEP-240	EU-240	Equalization Basin	4843 / 5309
SEP-242	EU-242	West Aeration Basin	5810 / 5968
SEP-243	EU-243	East Aeration Basin	5811 / 5969
SEP-244	EU-244	Biototron #1	4847 / 5312
SEP-245	EU-245	Biototron #2	4848 / 5313
SEP-246	EU-246	Biototron #3	4849 / 5314
SEP-247	EU-247	East Clarifier	4850 / 5315
SEP-248	EU-248	Center Clarifier	4851 / 5316
SEP-249	EU-249	West Clarifier	4852 / 5317
BIOMASS P	ROCESSING		
SEP-087	EU-87	Biosolids Dryer	4608 / 5307
SEP-089	EU-89	Biosolids Dryer	4619 / 5308
SEP-098	EU-98	Biosolids Storage Bin #1	4620 / 5013
SEP-099	EU-99	Biosolids Storage Bin #2	4621 / 5014
SEP-100	EU-100	Biosolids Storage Bin #3	4622 / 5015
SEP-101	EU-101	Biomass Truck Loadout	4623 / 5086

## **Insignificant Activities Equipment List**

Insignificant Emission Unit Number	Insignificant Emission Unit Description
ELEVATOR	
MILL	
EU-225	Corn Wet Milling – Millhouse Sewage Tank (ATI 3395 / PTO 3259)
60% GLUTEN M	IEAL
GERM	
210/ FIDED FEE	D.
21% FIBER FEE	ט 
PELLET MILL	
T DEBET WILL	
ALCOHOL	
EU-88	Alcohol Caustic Tank (ATI 3769 / PTO 3593)
STARCH MANU	JFACTURING
MALTODEXTR	
EU-121	Maltodextrin – Evaporation (ATI 5138 / PTO 5230)
FRUCTOSE	This years — — 1 (1 my 2110 (2 mg 2021)
EU-42	Dilute HCl Storage Tank (ATI 2110 / PTO 2021)
EU-52	Reclaimed Acid Tank Vent (ATI 1570 / PTO 1293)
EU-53	Anion Waste Storage (ATI 1563 / PTO 1289)
EU-54	SO <sub>2</sub> Dilution Tank & Magnesium Bisulfite Storage (ATI 4099 / PTO 4068)
EU-151 EU-152	Fructose Evaporation (ATI 3381 / PTO 3241) Fructose Evaporation (ATI 3382 / PTO 3242)
EU-154	Fructose Evaporation (ATI 3382 / FTO 3242)  Fructose Neutralization (ATI 3378 / PTO 3244)
EU-155	Fructose Neutralization (ATI 3378 / 1 TO 3244)  Fructose Neutralization (ATI 3379 / PTO 3245)
EU-159	Fructose Evaporation (ATI 3224 / PTO 3135)
10 13)	11400000 D14polation (1111 3227 / 1 10 3133)
SYRUP / REFIN	ERY
EU-111	Corn Wet Milling – Hotwell Sewer Tank (ATI 3427 / PTO 3237)
EU-117	Corn Wet Milling – No. 2 Converter Hotwell (ATI 3431 / PTO 3240)
EU-118	Corn Wet Milling - #3 & #4 Evaporator Jets Hotwell Vent (ATI 3970 / PTO 3900)
EU-389	Carbon Transfer System (ATI 5033 / PTO 5304)
EU-390	Carbon Transfer System (ATI 5034 / PTO 5305)

Insignificant	
<b>Emission Unit</b>	Insignificant Emission Unit Description
Number	
UTILITIES	
EU-519	Boiler Room Sewer Tank Vent (ATI 3439 / PTO 3353)
EU-523	Corn Plant Diesel Fuel Tank (ATI 4590 / PTO 4702)
EU-524	Corn Plant Gasoline Tank (ATI 4591 / PTO 4703)
CO-GENERATION CO	ON PLANT
BULK CHEMIC	ALS
EU-164	Plate Adhesive Hood (ATI 5914 / PTO 5973)
EU-300	CT #1 Sulfuric Acid Tank (ATI 4658 / PTO 4726)
EU-301	CT #2 Sulfuric Acid Tank (ATI 4657 / PTO 4727)
EU-303	Alcohol Sulfuric Acid Tank (ATI 4655 / PTO 4729)
EU-305	Cogen North CT Sulfuric Acid Tank (ATI 4653 / PTO 4731)
EU-306	Cogen South CT Sulfuric Acid Tank (ATI 4652 / PTO 4732)
WASTE TREAT	MENT
EU-84	Treated Outfall #1 Building - Outfall Plume (ATI 3681 / PTO 3505)
EU-85	Treated Outfall #2 Building (ATI 3426 / PTO 3228)
EU-302	Aeration Basin Sulfuric Acid Tank (ATI 4656 / PTO 4728)
BIOMASS PROC	CESSING

Insignificant Emission Unit Number	Insignificant Emission Unit Description
MISCELLANEOUS	
IU-001	New Oil Storage Tanks
IU-002	Used Oil Storage Tanks
IU-003	Backup Generator Fuel Tanks
IU-004	Fire Pump Fuel Tanks
IU-005	Parts Cleaners
CDT	Co-Gen Diesel Fuel Tank
CGT	Co-Gen Gasoline Tank
ALO	WM Alcohol Loadout Diesel Tank
DSD	Dry Starch Generator Diesel Tank
WTD	Waste Treatment Diesel Tank
C3D	Cooling Tower 3 Generator Diesel Tank
FGD	Fructose Generator Diesel Tank
NFP	Corn Plant North Fire Pump Diesel Tank
SFP	Corn Plant South Fire Pump Diesel Tank
BRD	CP Boiler Room Generator Diesel Tank
CWF	Co-Gen West Pump Diesel Tank
CEF	Co-Gen East Fire Pump Diesel Tank
CD1	Co-Gen Generator #1 Diesel Tank
CD2	Co-Gen Generator #2 Diesel Tank

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

Facility Name: ADM Corn Processing Permit Number: 08-TV-004R1-M002

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

#### **Permit Duration**

The term of this permit is: less than 5 years

Commencing on: January 6, 2017 Ending on: January 5, 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): 20% opacity Authority for Requirement: LCO 10.7

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

LCO 10.12(2)

#### 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"

#### Particulate Matter:

No person shall permit, cause, suffer or allow the emission of particulate matter into the atmosphere in any one hour from any emission point from any process equipment at a rate in

excess of that specified in Table I for the process weight rate allocated to such emission point. The emission standards in LCO 10.9 (1)"a" shall apply and those specified in LCO 10.8 and 10.9 and Table I shall not apply to each process of the types listed in those sections, with the following exception: whenever the compliance status, history of operations, ambient air quality in the vicinity, or the type of control equipment utilized, would warrant maximum control, the Air Pollution Control Officer may enforce 0.1 grain per standard cubic foot of exhaust gas, or Table I of this section, whichever would result in the lowest allowable emission rate.

Authority for Requirement: LCO 10.9(1)

#### **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"

#### **Regulatory Authority**

This facility is located in Linn County, Iowa. Linn County Public Health, under agreement with the Iowa Department of Natural Resources (IDNR), is the primary regulatory agency in Linn County. This Title V permit is issued by the Iowa Department of Natural Resources, however, required contacts and information submittals referred to in this permit as required by "the Department" should continue to be directed to the Linn County Public Health office. This will include such items as stack test notification, stack test results submittal, oral and written excess emission reports, and reports and records required in the Linn County construction permits. Information specifically required by the Title V permit such as the annual EIQ and fees, annual compliance certification, semi-annual monitoring report and any Title V forms submitted for updates, modifications, renewals, etc. must be submitted to the Iowa DNR. Stack test notifications and test results for tests required as periodic monitoring in the Title V permit shall be submitted to Linn County Public Health. Stack test protocols and test results conducted as required by a PSD permit shall be submitted to the IDNR and Linn County Public Health Air Quality Division.

Authority for Requirement: 567 IAC 22.108

#### 40 CFR 63 NESHAP Subpart FFFF, Miscellaneous Organic Chemical Manufacturing

The requirements of the NESHAP in 40 CFR 63, Subpart FFFF apply to the miscellaneous organic chemical manufacturing process units at this source (including but not limited to process vents, storage tanks, transfer stations, pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems used in the ethanol manufacturing process). Specific emission units subject to this requirement will be determined by the compliance date. The requirements include, but are not limited to the following:

The emission limits, work practice standards, and compliance requirements pursuant to 40 CFR §63.2450-63.2490.

The notification, reporting, and recordkeeping requirements pursuant to 40 CFR §63.2515-63.2525.

The proposed compliance date for the existing chemical manufacturing process units at this source are May 10, 2008. The facility must comply with all requirements of this subpart by the compliance date as determined in the final rule.

Authority for Requirement: LCO 10.9(4) "ffff"

567 IAC 23.1(4)"cf"

40 CFR 63 Subpart FFFF

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#### **Compliance Plan**

The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Unless otherwise noted in Section III of this permit, ADM Corn Processing is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, ADM Corn Processing shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

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

Facility Name: ADM Corn Processing Permit Number: 08-TV-004R1-M002

**Emission Point ID Number: SEP-008** 

**Process Area: ELEVATOR** 

**Table Elevator-1. Associated Equipment.** 

			Raw	D / 1		CE
ED	EU	EII Description	Material/	Rated	CE ID	CE
EP SEP-	EU-8	EU Description Corn Truck Receiving	Fuel Corn	<b>Capacity</b> 45,000	CE ID CE-008	<b>Description</b> Baghouse
008	EU-6	Com Truck Receiving	Com	bu/hr	CL-008	Dagnouse
SEP-	EU-8B	400 Leg	Corn	45,000	CE-008	Baghouse
008	LC 0B	100 105	Com	bu/hr	CL 000	Dagnouse
SEP-	EU-8C	Transfer Conveyor	Corn	25,000	CE-008	Baghouse
008				bu/hr		8
SEP-	EU-	60% Gluten Meal	60% Gluten	18,750	CE-010	Baghouse
008	10A	Cooler #1	Meal	bu/hr		
SEP-	EU-	60% Gluten Meal	60% Gluten	18,750	CE-010	Baghouse
008	10B	Cooler #2	Meal	bu/hr		
SEP-	EU-22	Corn Cleaners System B	Corn	30,000	CE-022	Baghouse
008				bu/hr		
SEP-	EU-	Cleaner Leg	Corn	33,300	CE-022	Baghouse
008	22B			bu/hr		
SEP-	EU-23	Cracked Corn Receiving	Cracked	25,000	CE-023	Baghouse
008			Corn	lb/hr		
SEP-	EU-40	Germ to Storage	Germ	64,690	CE-040	Baghouse
008		Conveying		lb/hr		
SEP-	EU-48	Gluten Meal Milling	60% Gluten	45,000	CE-048	Baghouse
008			Meal	lb/hr		
SEP-	EU-49	Gluten Meal Storage	60% Gluten	18,750	CE-049	Baghouse
008			Meal	bu/hr		
SEP-	EU-	Gluten Truck Loading	60% Gluten	18,750	CE-086	Baghouse
008	86A		Meal	bu/hr	CT 006	D 1
SEP-	EU-	Gluten Rail Loading	60% Gluten	200	CE-086	Baghouse
008	86B	G: 175 1 X	Meal	ton/hr	GE 100	D 1
SEP-	EU-	Steel Tank Leg	Corn	20,000	CE-180	Baghouse
008	180B	G'1 ( G) D	C	bu/hr	GE 100	D 1
SEP-	EU-	Silo to Steeps Drag	Corn	25,000	CE-180	Baghouse
008	180C	Conveyor	C	bur/hr	CE 100	D1
SEP-	EU-	Silo to Steeps Drag	Corn	25,000	CE-180	Baghouse
008 SEP-	180D EU-	Conveyor Steen House Com	Com	3,000	CE-180	Daghayaa
008	180E	Steep House Corn Hopper	Corn	bushels	CE-180	Baghouse
SEP-	EU-	Rail Dump	Corn	30,000	CE-181	Raghouse
008	181	Kali Duliip	Corn	50,000 bu/hr	CE-101	Baghouse
000	101			Ju/III	l	

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-	EU-	200 Leg	Corn	30,000	CE-181	Baghouse
008	181B	C		bu/hr		

Note: EU-8, EU-8B, and EU-8C are controlled by CE-008. This is the normal operation that represents 99% of the operating time. CE-008, CE-180, and CE-181 are connected through common ducting but are typically isolated from each other with slide gates. During maintenance periods, a baghouse can be isolated from the system and the other two can be opened to share the load. The flow rates will be reduced during maintenance periods.

#### **Applicable Requirements**

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

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

Table Elevator-2. Emission Limits.

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-008	Opacity	20% <sup>4,5</sup>	LCO 10.7
SEP-008	Opacity	5% <sup>4,5</sup> (truck unloading)	LCPH ATI 6051 / PTO 6148R1
			40 CFR §60.302(c)(1)
SEP-008	Opacity	0% (grain handling	LCPH ATI 6051 / PTO 6148R1
		operations) <sup>4,5</sup>	40 CFR §60.302(c)(2)
SEP-008	PM/PM <sub>10</sub>	$6.05 \text{ lb/hr}^3$	LCPH ATI 6051 / PTO 6148R1
SEP-008	$PM_{10}$	14.4 tpy <sup>6</sup>	LCPH ATI 6051 / PTO 6148R1
SEP-008	PM	0.01 gr/dscf	LCPH ATI 6051 / PTO 6148R1
			40 CFR §60.302(b)(1)
SEP-008	VOC	9.06 lb/hr	LCPH ATI 6051 / PTO 6148R1

<sup>&</sup>lt;sup>1</sup> Standard is expressed as the average of 3 runs.

#### **Operating Limits and Requirements**

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

<sup>&</sup>lt;sup>2</sup> Standard is a 12-month rolling total.

<sup>&</sup>lt;sup>3</sup> Emission rate used to demonstrate no exceedance of the National Ambient Air Quality Standards (NAAQS).

<sup>&</sup>lt;sup>4</sup> The observation of **visible emissions** of air contaminants as defined in LCO 10.2 will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the visible emissions. If visible emissions continue after the corrections, Linn County may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>&</sup>lt;sup>5</sup> An exceedance of no visible emissions will require the owner/operator to promptly conduct an EPA Method 9 evaluation to determine compliance with the NSPS DD opacity limit.

<sup>&</sup>lt;sup>6</sup> This emission limit is a PSD Synthetic minor limit that was established for this project which includes EP-8, EP-180 and EP-181.

#### **Control Equipment:**

Multiple baghouses shall be installed to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 14 [Operating Limits] shall be installed, maintained and operating during the operation of the emission unit and control equipment at all times.

Authority for Requirement: LCPH ATI 6051 / PTO 6148R1

## New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9(2) and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (national emission standards for hazardous air pollutants) shall be applicable as specified in LCO 10.9(3) and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (national emission standards for hazardous air pollutants for source categories) shall be applicable as specified in LCO 10.9(4) and 567 IAC 23.1(4).

- A. This emission source, new conveyors only, is subject to Subpart A (General Provisions, 40 CFR §60.1 40 CFR §60.19) and Subpart DD, Standards of Performance for Grain Elevators; 40 CFR §60.300 40 CFR §60.304) of the New Source Performance Standards (NSPS).
- B. This emission unit is not subject to a NESHAP as there are no subparts for this source category.

Authority for Requirement: LCPH ATI 6051 / PTO 6148R1

#### **Operating Limits:**

- A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.
- B. The differential pressure measured across each baghouse, with the exception of EU-008, shall be greater than 0.2 inches of water column and less than 6 inches of water column. The differential pressure measured across EU-008 shall be greater than 1.0 inch of water column and less than 8.0 inches of water column.
- C. Each baghouse shall be maintained according to the manufacturer's specifications and/or good operating practices.
- D. The baseline actual emissions for the project are equal to 15.56 tons per year for PM<sub>10</sub>. The baseline actual emissions shall remain unchanged throughout the five (5) year period following the issuance of this permit [LCPH Project #1687].
- E. The owner or the operator shall determine the actual emissions for the project by summing the emissions from the following emission points each month: EP-8, EP-180 and EP-181.
- F. Actual emissions minus the baseline actual emissions from the project shall not exceed the PSD significant levels: 14.4 tons per 12-month rolling period of PM<sub>10</sub>. If the emission increases from the project do not exceed the PSD significance levels at any time from the resumption of regular operations to the end of the five (5) year review period,

- the 14.4 tons per year limit will no longer apply. If these limits are exceeded during the five (5) year review period, the owner or operator shall submit a report pursuant to 567 IAC 33.3(18)"f"(7).
- G. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project the owner or operator shall document:
  - 1) A description of the project,
  - 2) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project, and
  - 3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "projected actual emissions" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- H. Per 567 IAC 33.3(18)"f'(4), the owner or operator shall:
  - 1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition 14.G.(2).
  - 2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit (for the purposes of this requirements, "regular" shall be determined by the department on a case-by-case basis).
  - 3) Maintain a written record containing the information required in this subparagraph.
- I. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

Authority for Requirement: LCPH ATI 6051 / PTO 6148R1

#### **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. 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 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly conduct an EPA Method 9 evaluation to determine compliance with the NSPS DD opacity limit, investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Record the weekly average facility grind rate.

- C. Monitor and record the pressure differential across each baghouse on a weekly basis while the control equipment and emission units are in operation.
- D. Monitor and record any maintenance and repair completed on the control devices.
- E. Record the monthly sum of the actual PM<sub>10</sub> emissions from the following emission points: EP-008, EP-180 and EP-181.
- F. Record monthly the 12-month rolling value of the actual emissions minus the baseline actual emissions from the following emission points: EP-008, EP-180 and EP-181. This written record shall be retained by the owner or operator for a period of ten years after the project is completed.
- G. The facility is allowed to exclude those emissions following this change that could have been accommodated during the consecutive 24-month period used to establish BAE that are unrelated to this project (i.e., increased utilization due to demand growth). The facility shall be required to include a justification for any emissions excluded due to demand growth.
- H. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in Condition 14.G. of this permit.
- I. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in Condition 14.H. of this permit and that record shall be retained by the owner or operator for a period of ten (10) years after the project is completed.

Authority for Requirement: LCPH ATI 6051 / PTO 6148R1

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Table Elevator-3.

		Stack Characteristics				
				Stack		Exhaust
	LCPH	Stack Height		Opening	Exhaust	Flow
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate
EP	Numbers	ground)	Style	dia.)	(°F)	(acfm)
SEP-	6051 / 6148R1	150	Vertical,	72	95	125,000
008			unobstructed			

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

#### **Monitoring Requirements**

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

#### **Stack Testing:**

The following stack tests shall be performed:

Pollutant – PM<sub>10</sub>

1st Stack Test to be Completed by – within first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter

1st Stack Test to be Completed by – within first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 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)

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

Emission Point ID Number: SEP-061, SEP-062, SEP-063, SEP-064

**Process Area: ELEVATOR** 

**Table Elevator-4. Associated Equipment.** 

			Raw			
			Material/	Rated		CE
EP	EU	<b>EU Description</b>	Fuel	Capacity	CE ID	Description
SEP-061	EU-61	#1 Steel Corn	Corn	45,000	CE-061	Baghouse
		Storage Tank		bu/hr		
SEP-062	EU-62	#2 Steel Corn	Corn	45,000	CE-062	Baghouse
		Storage Tank		bu/hr		_
SEP-063	EU-63	#3 Steel Corn	Corn	45,000	CE-063	Baghouse
		Storage Tank		bu/hr		
SEP-064	EU-64	#4 Steel Corn	Corn	45,000	CE-064	Baghouse
		Storage Tank		bu/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.

Table Elevator-5. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
		PM/PM <sub>10</sub>	0.09 lb/hr	LCO ATI 6210 / PTO 6051
				LCO ATI 6211 / PTO 6052
				LCO ATI 6212 / PTO 6053
				LCO ATI 6213 / PTO 6054
		Opacity	20%	LCO ATI 6210 / PTO 6051
SEP-061	EU-61			LCO ATI 6211 / PTO 6052
SEP-061 SEP-062	EU-61 EU-62			LCO ATI 6212 / PTO 6053
SEP-062 SEP-063	EU-62 EU-63			LCO ATI 6213 / PTO 6054
SEP-063 SEP-064	EU-63 EU-64			LCO 10.7
SEP-004	EU-04	PM	0.1 gr/dscf	LCO ATI 6210 / PTO 6051
				LCO ATI 6211 / PTO 6052
				LCO ATI 6212 / PTO 6053
				LCO ATI 6213 / PTO 6054
				567 IAC 23.4(7)
				LCO 10.9(1)"g"

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

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control equipment shall be maintained on this source in a good operating condition at all times. A manometer (or equivalent instrumentation) shall also be installed and maintained on this source.

Authority for Requirement: ATI 6210 / PTO 6051

ATI 6211 / PTO 6052 ATI 6212 / PTO 6053 ATI 6213 / PTO 6054

#### **Operating Limits:**

- A. The differential pressure measured across the baghouse, CE-061, 062, 063, or 064, shall be maintained between 0.25 inches of water column and 7 inches of water column, with the exception of unit startup.
- B. The control equipment on this unit shall be maintained according to the manufacturer's specification and good operating practices.
- C. The facility-wide grind rate shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.

Authority for Requirement: ATI 6210 / PTO 6051

ATI 6211 / PTO 6052 ATI 6212 / PTO 6053 ATI 6213 / PTO 6054

#### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Monitor and record any maintenance and repair completed on the control equipment.
- C. Monitor and record the differential pressure on the baghouse on a weekly basis while the control equipment and emission units are in operation.
- D. Calculate and record the weekly facility grind rate average based on 52-week rolling average.

Authority for Requirement: ATI 6210 / PTO 6051

ATI 6211 / PTO 6052 ATI 6212 / PTO 6053 ATI 6213 / PTO 6054

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Table Elevator-6.

		Stack Characteristics					
EP	LCPH ATI / PTO Numbers	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flow Rate (acfm)	
SEP-	6210 / 6051	88	Vertical,	6	70	1035	
061			unobstructed				
SEP-	6211 / 6052	88	Vertical,	6	70	1035	
062			unobstructed				
SEP-	6212 / 6053	88	Vertical,	6	70	1035	
063			unobstructed				
SEP-	6213 / 6054	88	Vertical,	6	70	1035	
064			unobstructed				

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

#### **Monitoring Requirements**

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

#### **Stack Testing:**

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring is required for PM and an agency-approved operation and maintenance plan is required for PM<sub>10</sub> at SEP-061, SEP-062, SEP-063, and SEP-064; however, as PM and PM10 are controlled by the same equipment, and CAM is more stringent, the agency-approved operation and maintenance plan requirement has been waived. Note that the increased frequency of differential pressure observations from weekly to daily is required by CAM to meet the minimum standards.

**Emission Point ID Number: SEP-180, SEP-181** 

**Process Area: ELEVATOR** 

**Table Elevator-7. Associated Equipment.** 

Table Ele	Vato1-7. 11s	sociated Equipment.	Raw			
			Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-	EU-180	Bulk Weigh Scale	Corn	40,000	CE-180	Baghouse
180/181	20 100	Built Weight State	00111	bu/hr	CL 100	Bugilouse
SEP-	EU-180B	Steel Tank Leg	Corn	20,000	CE-180	Baghouse
180/181				bu/hr		8
SEP-	EU-180C	Silo to Steeps Drag	Corn	25,000	CE-180	Baghouse
180/181	EU-180D	Conveyors		bu/hr each		S
SEP-	EU-180E	Steep House Corn	Corn	3000	CE-180	Baghouse
180/181		Hopper		bu/hr		
SEP-	EU-181	Rail Dump	Corn	30,000	CE-181	Baghouse
180/181				bu/hr		
SEP-	EU-181B	200 Leg	Corn	30,000	CE-181	Baghouse
180/181		_		bu/hr		
SEP-	EU-8	Corn Truck	Corn	45,000	CE-008	Baghouse
180/181		Receiving		bu/hr		
SEP-	EU-8B	400 Leg	Corn	45,000	CE-008	Baghouse
180/181				bu/hr		
SEP-	EU-8C	Transfer Conveyor	Corn	25,000	CE-008	Baghouse
180/181				bu/hr		
SEP-	EU-10A	60% Gluten Meal	60% Gluten	18,750	CE-010	Baghouse
180/181		Cooler #1	Meal	bu/hr		
SEP-	EU-10B	60% Gluten Meal	60% Gluten	18,750	CE-010	Baghouse
180/181		Cooler #2	Meal	bu/hr		
SEP-	EU-22	Corn Cleaners	Corn	30,000	CE-180	Baghouse
180/181		System B		bu/hr	CE-181	
SEP-	EU-22B	Cleaner Leg	Corn	33,300	CE-180	Baghouse
180/181				bu/hr	CE-181	
SEP-	EU-23	Cracked Corn	Cracked	25,000	CE-023	Baghouse
180/181		Receiving	Corn	lb/hr		
SEP-	EU-40	Germ to Storage	Germ	64,680	CE-040	Baghouse
180/181		Conveying	5001 74	lb/hr		
SEP-	EU-48	Gluten Meal	60% Gluten	45,000	CE-048	Baghouse
180/181	DIL 10	Milling	Meal	lb/hr	GE 040	D 1
SEP-	EU-49	Gluten Meal	60% Gluten	18,750	CE-049	Baghouse
180/181	DII 0.C.	Storage	Meal	bu/hr	006	D 1
SEP-	EU-86A	Gluten Truck	60% Gluten	18,750	086	Baghouse
180/181	FILOCE	Loading	Meal	bu/hr	006	D 1
SEP-	EU-86B	Gluten Rail	60% Gluten	200 ton/hr	086	Baghouse
180/181		Loading	Meal			

#### **Applicable Requirements**

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

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

**Table Elevator-8. Emission Limits.** 

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-180 SEP-181	EU-180 EU-181	Opacity	20%	LCPH ATI 6040 / PTO 6109
				LCPH ATI 6041 / PTO 6110
				LCO 10.7
			0%1,2	40 CFR §60.302(b)(2)
			5% (fugitive emission	LCPH ATI 6040 / PTO 6109
			limit for truck	LCPH ATI 6041 / PTO 6110
			unloading) <sup>1,2</sup>	40 CFR §60.302(c)(1)
			0% (fugitive emission	LCPH ATI 6040 / PTO 6109
			limit for grain handling	LCPH ATI 6041 / PTO 6110
			operations) <sup>1,2</sup>	40 CFR §60.302(c)(2)
		PM <sub>10</sub>	1.03 lb/hr	LCPH ATI 6040 / PTO 6109
				LCPH ATI 6041 / PTO 6110
			14.4 <sup>(3)</sup> tpy	LCPH ATI 6040 / PTO 6109
				LCPH ATI 6041 / PTO 6110
		PM	1.03 lb/hr	LCPH ATI 6040 / PTO 6109
				LCPH ATI 6041 / PTO 6110
			0.01 gr/dscf	40 CFR §302 (b)(1)

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

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

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

#### **Control Device:**

A baghouse shall be installed to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 14 [Operating Limits] shall be installed, maintained and operating during the operation of the emission unit and control equipment at all times.

Authority for Requirement: LCPH ATI 6040 / PTO 6109

LCPH ATI 6041 / PTO 6110

<sup>&</sup>lt;sup>2</sup> An exceedance of no visible emissions will require the owner/operator to promptly conduct an EPA Method 9 evaluation to determine compliance with the NSPS DD opacity limit.

<sup>&</sup>lt;sup>3</sup> This emission limit is a PSD Synthetic minor limit that was established for this project which includes EP- 8, EP-180 and EP-181.

## New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability:

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9(2) and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (national emission standards for hazardous air pollutants) shall be applicable as specified in LCO 10.9(3) and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (national emission standards for hazardous air pollutants for source categories) shall be applicable as specified in LCO 10.9(4) and 567 IAC 23.1(4).

- A. This source is subject to Subpart A General Provisions (40 CFR Section 60.1 through 40 CFR Section 60.19) of the New Source Performance Standards (NSPS) and Subpart DD Standards of Performance for Grain Elevators (40 CFR Section 60.300 through 40 CFR Section 60.304) for the new belt conveyors only.
- B. This source is not subject to a NESHAP at this time as there are no subparts for this source category.

Authority for Requirement: LCPH ATI 6040 / PTO 6109

LCPH ATI 6041 / PTO 6110

#### **Operating Limits:**

- A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.
- B. The differential pressure measured across each baghouse with the exception of EU-008 shall be greater than 0.2 inches of water column and less than 6 inches of water column. The differential pressure measured across EU-008 shall be greater than 1.0 inch of water column and less than 8.0 inches of water column.
- C. Each baghouse shall be maintained according to the manufacturer's specifications and/or good operating practices.
- D. The baseline actual emissions for the project are equal to 15.56 tons per year for PM<sub>10</sub>. The baseline actual emissions shall remain unchanged throughout the five (5) year period following the issuance of this permit [LCPH Project #1682].
- E. The owner or the operator shall determine the actual emissions for the project by summing the emissions from the following emission points each month: EP-8, EP-180 and EP-181.
- F. Actual emissions minus the baseline actual emissions from the project shall not exceed the PSD significant levels: 14.4 tons per 12-month rolling period of PM<sub>10</sub>. If the emission increases from the project do not exceed the PSD significance levels at any time from the resumption of regular operations to the end of the five (5) year review period, the 14.4 tons per year limit will no longer apply. If these limits are exceeded during the five (5) year review period, the owner or operator shall submit a report pursuant to 567 IAC 33.3(18)"f"(7).
- G. Per 567 IAC 33.3(18)"f"(1), prior to beginning actual construction of the project the owner or operator shall document:
  - 1) A description of the project,

- 2) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project, and
- 3) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions (BAE), the projected actual emissions (PAE), the amount of emissions excluded under paragraph "3" of the definition of "projected actual emissions" in subrule 33.3(1), an explanation describing why such amount was excluded, and any netting analysis if applicable.
- H. Per 567 IAC 33.3(18)"f'(4), the owner or operator shall:
  - 1) Monitor the emission of any regulated NSR pollutant that could increase as a result of the project that is emitted by any emissions unit identified in Condition 14.G.(2).
  - 2) Calculate the annual emissions, in tons per year on a calendar-year basis, for a period of five (5) years following resumption of regular operations and maintain a record of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit (for the purposes of this requirements, "regular" shall be determined by the department on a case-by-case basis).
  - 3) Maintain a written record containing the information required in this subparagraph.
- I. Per 567 IAC 33.3(18)"g", the owner or operator shall make the information required to be documented and maintained pursuant to 567 IAC 33.3(18)"f" available for review upon request for inspection by the Department or the general public pursuant to the requirements for Title V operating permits contained in 567 IAC 22.107(6).

Authority for Requirement: LCPH ATI 6040 / PTO 6109 LCPH ATI 6041 / PTO 6110

#### **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. 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 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly conduct an EPA Method 9 evaluation to determine compliance with the NSPS DD opacity limit, investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Record the weekly average facility grind rate.
- C. Monitor and record the pressure differential across each baghouse on a weekly basis while the control equipment and emission units are in operation.
- D. Monitor and record any maintenance and repair completed on the control device.
- E. Record the monthly sum of the actual PM<sub>10</sub> emissions from the following emission points: EP-008, EP-180 and EP-181.

- F. Record monthly the 12-month rolling value of the actual emissions minus the baseline actual emissions from the following emission points: EP-008, EP-180 and EP-181. This written record shall be retained by the owner or operator for a period of ten years after the project is completed.
- G. The facility is allowed to exclude those emissions following this change that could have been accommodated during the consecutive 24-month period used to establish BAE that are unrelated to this project (i.e., increased utilization due to demand growth). The facility shall be required to include a justification for any emissions excluded due to demand growth.
- H. Per 567 IAC 33.3(18)"f"(1), the owner or operator shall maintain a record of the information required in Condition 14.G.[Operating Limits] of this permit.
- I. Per 567 IAC 33.3(18)"f"(4) and 567 IAC 33.3(18)"f"(5), the owner or operator shall maintain a record containing the information required in Condition 14.H.[Operating Limits] of this permit and that record shall be retained by the owner or operator for a period of ten (10) years after the project is completed.

Authority for Requirement: LCPH ATI 6040 / PTO 6109

LCPH ATI 6041 / PTO 6110

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Elevator-9.

		Stack Characteristics				
	LCPH	Stack		Stack		Exhaust
	Permit	Height		Opening	Exhaust	Flow
	Numbers	(feet, above	Discharge	(inches,	Temp.	Rate
EP	(ATI/PTO)	ground)	Style	dia.)	(°F)	(acfm)
SEP-	6040 / 6109	130	Vertical,	43	85	35,000
180			unobstructed			
SEP-	6041 / 6110	130	Vertical,	43	85	35,000
181			unobstructed			

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

#### **Monitoring Requirements**

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

#### **Opacity Monitoring:**

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)

Agency Approved Operation & Maintenance Plan Required?	Yes No No
Facility Maintained Operation & Maintenance Plan Required?	Yes 🖂 1 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

<sup>1</sup> Facility O&M required for EP 181. EP 180 is not required to have an O&M plan or CAM.

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: SEP-083** 

**Process Area: MILL** 

Table Mill-1. Associated Equipment.

10010111		SSOCIATED Equipme	Raw Material/	Rated		
EP	EU	EU Description	Fuel	Capacity	CE ID	CE Description
SEP-	EU-	Wet Corn	C	60,000	CE-083A	Wet Scrubber
083	83A	Hopper	Corn	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	First Cair d Tauls	Com	55,000	CE-083A	Wet Scrubber
083	83B	First Grind Tank	Corn	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	MR Steepwater	Com	120,000	CE-083A	Wet Scrubber
083	83C	Evaporators	Corn	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Ctoon Touls 1E	Com	156,392.7	CE-083A	Wet Scrubber
083	375	Steep Tank 1E	Corn	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Stoop Tople 2E	Com	156,392.7	CE-083A	Wet Scrubber
083	376	Steep Tank 2E	Corn	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steam Towls 2E	Com	156,392.7	CE-083A	Wet Scrubber
083	377	Steep Tank 3E	Corn	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Ctoon Touls 10E	Corn	156,392.7	CE-083A	Wet Scrubber
083	378	Steep Tank 10E		gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 11E	Corn	156,392.7	CE-083A	Wet Scrubber
083	379	Steep Tallk TTE		gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 12E	Corn	156,392.7	CE-083A	Wet Scrubber
083	380	Steep Talik 12E		gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 1F	Corn	156,392.7	CE-083A	Wet Scrubber
083	381	Steep Talik II		gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 2F	Corn	156,392.7	CE-083A	Wet Scrubber
083	382	Steep Talik 21	Com	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 3F	Corn	156,392.7	CE-083A	Wet Scrubber
083	383	Steep Talik 31	Com	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Chara Taula 10E	Corn	156,392.7	CE-083A	Wet Scrubber
083	384	Steep Tank 10F	Com	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 11F	Corn	156,392.7	CE-083A	Wet Scrubber
083	385	Steep Tallk III	COIII	gal/hr	CE-083B	Caustic Scrubber
SEP-	EU-	Steep Tank 12F	Corn	156,392.7	CE-083A	Wet Scrubber
083	386	Sucep Talik 12F	Corn	gal/hr	CE-083B	Caustic Scrubber

# **Applicable Requirements**

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

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

**Table Mill-2. Emission Limits.** 

EP	Pollutant	<b>Emission Limit(s)</b>	<b>Authority for Requirement</b>
	Opacity	20%	LCPH ATI 4828 / PTO 5712
	Ораспу	2070	LCO 10.7
	$PM_{10}$	0.20 lb/hr	LCPH ATI 4828 / PTO 5712
	F1V110	0.01 gr/dscf	LCFH A11 4828 / F1O 3 / 12
		0.20 lb/hr	LCPH ATI 4828 / PTO 5712
	PM	0.01 gr/dscf	LCFH A11 4828 / F1O 3 / 12
		0.1 gr/dscf	567 IAC 23.4(7)
SEP-083			LCO 10.9(1)"g"
SE1 -003		1.19 lb/hr	
		5.19 tpy	LCPH ATI 4828 / PTO 5712
	$SO_2$	50 ppmv	
		500 ppmv	567 IAC 23.3(3)"e"
		500 ppinv	LCO 10.12(2)
	VOC	0.32 lb/hr	
		1.42 tpy	LCPH ATI 4828 / PTO 5712
		20 ppm	

# **Operational Limits & Requirements**

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

#### **Control Device:**

A MR pre-scrubber and MR scrubber shall be used to control VOC and SO<sub>2</sub> emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4828 / PTO 5712

## **Operating Limits:**

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

- A. Maintain the MR pre-scrubber and MR scrubber according to the manufacturer's specifications and/or good operating practices.
- B. Water flow shall be maintained at a minimum of 150 gpm to the MR pre-scrubber (1st pass).
- C. Recycle water flow shall be maintained at a minimum of 400 gpm in the MR scrubber (2<sup>nd</sup> pass).
- D. Fresh makeup water flow to the MR scrubber shall be maintained at a minimum of 34 gpm.

Authority for Requirement: LCPH ATI 4828 / PTO 5712

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Monitor and record the water flow to the MR pre-scrubber on a daily basis.
- B. Monitor and record the recycle water flow to the MR scrubber on a daily basis.
- C. Monitor and record the fresh makeup water flow to the MR scrubber on a daily basis.
- D. Record all maintenance and repair completed on the control devices.

Authority for Requirement: LCPH ATI 4828 / PTO 5712

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Mill-3.

		Stack Charact	Stack Characteristics				
				Stack		Exhaust	
		Stack Height		Opening	Exhaust	Flow	
	LCPH Permit	(feet, above	Discharge	(inches,	Temp.	Rate	
EP	Numbers	ground)	Style	dia.)	(°F)	(acfm)	
SEP-	ATI 4828/	91	Vertical,	18	137	2388	
083	PTO 5712		unobstructed				

The temperature and flow rate 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 flow rate 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: LCPH ATI 4828 / PTO 5712

## **Monitoring Requirements**

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

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to

retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

**Emission Point ID Number: SEP-201** 

**Process Area: MILL** 

**Table Mill-4. Associated Equipment.** 

			Raw Material/	Rated	CE	CE
EP	EU	<b>EU Description</b>	Fuel	Capacity	ID	Description
	EU-	Heavy Gluten	Corn Gluten	24 000 001/hm		
	201A	Storage Tank	Com Gluten	24,000 gal/hr	-	-
SEP-	EU-	Mill Water Storage	Mill Water	24 000 001/hm		
201	201B	Tank	Willi water	24,000 gal/hr	-	-
	EU-	Light Steep Water	Light Steep	96,000 gal/hr	_	-
	201C	Storage Tanks	Water			

# **Applicable Requirements**

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

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

Table Mill-5. Emission Limits.

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-201	SO <sub>2</sub>	1.35 lb/hr	LCPH ATI 4829 / PTO 6111
		500 ppmv	LCPH ATI 4829 / PTO 6111
			LCO 10.12(2)
	VOC	2.63 lb/hr	LCPH ATI 4829 / PTO 6111

## **Operational Limits & Requirements**

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

There are no operating limits or recordkeeping required at this time.

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Mill-6.

		Stack Charact	Stack Characteristics				
				Stack		Exhaust	
	LCPH Permit	Stack Height		Opening	Exhaust	Flow	
	Numbers	(feet, above	Discharge	(inches,	Temp.	Rate	
EP	ATI/ PTO	ground)	Style	dia.)	(°F)	(acfm)	
SEP-	4829 / 6111	98	Vertical,	16	125	300	
201			unobstructed				

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

Monitoring Requirements

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

Agency Approved Operation & Maintenance Plan Required?

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: SEP-204, SEP-205, SEP-206

**Process Area: MILL** 

Table Mill-7. Emission Unit Description.

			Raw Material/	Rated		CE
EP	EU	<b>EU Description</b>	Fuel	Capacity	CE ID	Description
SEP-	EU-	Biomass Storage	Biomass	118,332		
204	204	Tank		gallons	-	-
SEP-	EU-	Heavy Steepwater	Heavy	118,332		
205	205	Tank	Steepwater	gallons	-	-
SEP-	EU-	Intermediate	Steepwater	118,332		
206	206	Steepwater		gallons	-	-
		Storage Tank				

# **Applicable Requirements**

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

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

**Table Mill-8. Emission Limits.** 

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
			ATI 4830 / PTO 6150
SEP-204	$SO_2$	500 ppmv	567 IAC 23.3(3)"e"
SEF-204			LCO 10.12(2)
	VOC	0.03 lb/hr	ATI 4830 / PTO 6150
			ATI 4831 / PTO 6151
SEP-205	SO <sub>2</sub>	500 ppmv	567 IAC 23.3(3)"e"
SEP-203			LCO 10.12(2)
	VOC	0.19 lb/hr	ATI 4831 / PTO 6151
			ATI 4832 / PTO 6152
CED 206	$SO_2$	500 ppmv	567 IAC 23.3(3)"e"
SEP-206			LCO 10.12(2)
	VOC	0.19 lb/hr	ATI 4830 / PTO 6152

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Mill-9.

		Stack Charac	Stack Characteristics				
	LCPH	Stack Height		Stack Opening	Exhaust	Exhaust Flow	
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate	
EP	Numbers	ground)	Style	dia.)	(°F)	(acfm)	
SEP-204	4830 / 6150	96	Vertical,	18	154	114	
			unobstructed				
SEP-205	4831 / 6151	96	Vertical,	18	134	43	
			unobstructed				
SEP-206	4832 / 6152	81	Vertical,	16	134	43	
			unobstructed				

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

# **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: SEP-210** 

**Process Area: MILL** 

**Table Mill-10. Emission Unit Description.** 

			Raw Material/	Rated	CE	
EP	EU	<b>EU Description</b>	Fuel	Capacity	ID	CE Description
SEP-	EU-	Sulfur Burning	Maltan Claumy	10 40 00/1000	CE-	Packed Bed
210	046	System	Molten Slurry	10 tons/day	210A	Scrubber
SEP-	EU-	Millhouse SO <sub>2</sub>	C C1	10.7501/1	CE-	Packed Bed
210	210	Scrubber	Corn Slurry	18,750 bu/hr	210A	Scrubber

# **Applicable Requirements**

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

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

**Table Mill-11. Emission Limits.** 

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
	Opacity	20%	ATI 5829 / PTO 6337
CED	$SO_2$	6.11 lb/hr	ATI 5829 / PTO 6337
SEP- 210		500 ppm	567 IAC 23.3(3)"e"
		2-	LCO 10.12(2)
	VOC	2.54 lb/hr	ATI 5829 / PTO 6337

## **Operational Limits & Requirements**

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

#### **Control Device:**

A wet scrubber shall be installed to control VOC emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 14 [Operating Limits] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

#### **Operating Limits:**

*Operating limits for this emission unit shall be:* 

- A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.
- B. The sulfur burner shall be limited to a maximum process rate of 10 tons of sulfur per day.
- C. Minimum fresh water flow rate through the packed tower scrubber shall be 240 gallons per minute.
- D. The pressure drop across the packed tower scrubber, CE-210A, shall be maintained between 0.5 and 12 inches of water.
- E. Minimum water flow rate through the primary absorption tower shall be 300 gallons per minute.

F. Maintain the scrubber and absorption tower according to the manufacturer's specifications and/or good operating practices.

Authority for Requirement: LCPH ATI 5829 / PTO 6337

## **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Calculate and record the weekly facility grind rate average based on a 52-week rolling average.
- B. Pressure drop readings across the packed tower scrubber, CE-210A, shall be recorded on a daily basis while the control equipment is in operation.
- C. Monitor and record daily fresh water flow rate for packed tower scrubber.
- D. Monitor and record daily process rate for sulfur burner.
- E. Monitor and record daily water flow rate for the absorption tower.
- F. Record all maintenance and repair completed on the packed tower scrubber and the absorption tower.

Note: An audible low water flow alarm system for the packed bed scrubber and the absorption tower units can be operated in lieu of daily recording of the water flow rates. However, the individual low water flow alarms must be recorded to demonstrate compliance with the absorption tower's 300 gallon per minute and the packed bed scrubber's 240 gallons per minute operating limit.

Authority for Requirement: LCPH ATI 5829 / PTO 6337

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Mill-12.

		Stack Characteristics					
		Stack	Stack			Exhaust	
	LCPH	Height		Opening	Exhaust	Flow	
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate	
EP	Numbers	ground)	Style	dia.)	(°F)	(acfm)	
SEP-	5829 / 6337	45	Vertical,	30	72	13,913	
210			unobstructed				

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

# **Monitoring Requirements**

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

# **Stack Testing:**

The following stack tests shall be performed:

Pollutant – Sulfur Dioxide (SO<sub>2</sub>) 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 6C (40 CFR 60) or approved alternative Authority for Requirement – 567 IAC 22.108

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)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

**Emission Point ID Number: SEP 307 - 374** 

**Process Area: MILL** 

**Table Mill-13. Emission Unit Description.** 

	-15. Emis	sion Unit Description.	Raw Material/	
EP	EU	EU Description	Fuel	Rated Capacity
SEP-307	EU-307	Steep Tank 1A	Corn and Steep Water	71,680 gal/hr
SEP-308	EU-308	Steep Tank 2A	Corn and Steep Water	71,680 gal/hr
SEP-309	EU-309	Steep Tank 3A	Corn and Steep Water	71,680 gal/hr
SEP-310	EU-310	Steep Tank 4A	Corn and Steep Water	71,680 gal/hr
SEP-311	EU-311	Steep Tank 5A	Corn and Steep Water	71,680 gal/hr
SEP-312	EU-312	Steep Tank 6A	Corn and Steep Water	71,680 gal/hr
SEP-313	EU-313	Steep Tank 7A	Corn and Steep Water	71,680 gal/hr
SEP-314	EU-314	Steep Tank 8A	Corn and Steep Water	71,680 gal/hr
SEP-315	EU-315	Steep Tank 9A	Corn and Steep Water	71,680 gal/hr
SEP-316	EU-316	Steep Tank 10A	Corn and Steep Water	71,680 gal/hr
SEP-317	EU-317	Steep Tank 11A	Corn and Steep Water	71,680 gal/hr
SEP-318	EU-318	Steep Tank 12A	Corn and Steep Water	71,680 gal/hr
SEP-319	EU-319	Steep Tank 13A	Corn and Steep Water	71,680 gal/hr
SEP-320	EU-320	Steep Tank 14A	Corn and Steep Water	71,680 gal/hr
SEP-321	EU-321	Steep Tank 15A	Corn and Steep Water	71,680 gal/hr
SEP-322	EU-322	Steep Tank 16A	Corn and Steep Water	71,680 gal/hr
SEP-323	EU-323	Steep Tank 17A	Corn and Steep Water	71,680 gal/hr
SEP-324	EU-324	Steep Tank 18A	Corn and Steep Water	71,680 gal/hr
SEP-325	EU-325	Steep Tank 1B	Corn and Steep Water	71,680 gal/hr
SEP-326	EU-326	Steep Tank 2B	Corn and Steep Water	71,680 gal/hr
SEP-327	EU-327	Steep Tank 3B	Corn and Steep Water	71,680 gal/hr
SEP-328	EU-328	Steep Tank 4B	Corn and Steep Water	71,680 gal/hr
SEP-329	EU-329	Steep Tank 5B	Corn and Steep Water	71,680 gal/hr
SEP-330	EU-330	Steep Tank 6B	Corn and Steep Water	71,680 gal/hr
SEP-331	EU-331	Steep Tank 7B	Corn and Steep Water	71,680 gal/hr
SEP-332	EU-332	Steep Tank 8B	Corn and Steep Water	71,680 gal/hr
SEP-333	EU-333	Steep Tank 9B	Corn and Steep Water	71,680 gal/hr
SEP-334	EU-334	Steep Tank 10B	Corn and Steep Water	71,680 gal/hr
SEP-335	EU-335	Steep Tank 11B	Corn and Steep Water	71,680 gal/hr
SEP-336	EU-336	Steep Tank 12B	Corn and Steep Water	71,680 gal/hr
SEP-337	EU-337	Steep Tank 13B	Corn and Steep Water	71,680 gal/hr
SEP-338	EU-338	Steep Tank 14B	Corn and Steep Water	71,680 gal/hr

			Raw Material/		
EP	EU	EU Description	Fuel	Rated Capacity	
SEP-339	EU-339	Steep Tank 15B	Corn and Steep Water	71,680 gal/hr	
SEP-340	EU-340	Steep Tank 16B	Corn and Steep Water	71,680 gal/hr	
SEP-341	EU-341	Steep Tank 17B	Corn and Steep Water 71,680 gal/hr		
SEP-342	EU-342	Steep Tank 18B	Corn and Steep Water	71,680 gal/hr	
SEP-343	EU-343	Steep Tank 1C	Corn and Steep Water	71,680 gal/hr	
SEP-344	EU-344	Steep Tank 2C	Corn and Steep Water	52,131 gal/hr	
SEP-345	EU-345	Steep Tank 3C	Corn and Steep Water	52,131 gal/hr	
SEP-346	EU-346	Steep Tank 4C	Corn and Steep Water	52,131 gal/hr	
SEP-347	EU-347	Steep Tank 5C	Corn and Steep Water	52,131 gal/hr	
SEP-348	EU-348	Steep Tank 6C	Corn and Steep Water	52,131 gal/hr	
SEP-349	EU-349	Steep Tank 7C	Corn and Steep Water	52,131 gal/hr	
SEP-350	EU-350	Steep Tank 8C	Corn and Steep Water	52,131 gal/hr	
SEP-351	EU-351	Steep Tank 9C	Corn and Steep Water	52,131 gal/hr	
SEP-352	EU-352	Steep Tank 10C	Corn and Steep Water	52,131 gal/hr	
SEP-353	EU-353	Steep Tank 11C	Corn and Steep Water	52,131 gal/hr	
SEP-354	EU-354	Steep Tank 12C	Corn and Steep Water	52,131 gal/hr	
SEP-355	EU-355	Steep Tank 13C	Corn and Steep Water	52,131 gal/hr	
SEP-356	EU-356	Steep Tank 14C	Corn and Steep Water	52,131 gal/hr	
SEP-357	EU-357	Steep Tank 15C	Corn and Steep Water	52,131 gal/hr	
SEP-358	EU-358	Steep Tank 16C	Corn and Steep Water	52,131 gal/hr	
SEP-359	EU-359	Steep Tank 17C	Corn and Steep Water	52,131 gal/hr	
SEP-360	EU-360	Steep Tank 18C	Corn and Steep Water	52,131 gal/hr	
SEP-361	EU-361	Steep Tank 1D	Corn and Steep Water	71,680 gal/hr	
SEP-362	EU-362	Steep Tank 2D	Corn and Steep Water	71,680 gal/hr	
SEP-363	EU-363	Steep Tank 3D	Corn and Steep Water	71,680 gal/hr	
SEP-364	EU-364	Steep Tank 4D	Corn and Steep Water	71,680 gal/hr	
SEP-365	EU-365	Steep Tank 5D	Corn and Steep Water	71,680 gal/hr	
SEP-366	EU-366	Steep Tank 6D	Corn and Steep Water	71,680 gal/hr	
SEP-367	EU-367	Steep Tank 7D	Corn and Steep Water	71,680 gal/hr	
SEP-368	EU-368	Steep Tank 8D	Corn and Steep Water	71,680 gal/hr	
SEP-369	EU-369	Steep Tank 9D	Corn and Steep Water	71,680 gal/hr	
SEP-370	EU-370	Steep Tank 10D	Corn and Steep Water	71,680 gal/hr	
SEP-371	EU-371	Steep Tank 11D	Corn and Steep Water	71,680 gal/hr	
SEP-372	EU-372	Steep Tank 12D	Corn and Steep Water	71,680 gal/hr	
SEP-373	EU-373	Steep Tank 13D	Corn and Steep Water	71,680 gal/hr	

			Raw Material/	
EP	EU	EU Description	Fuel	Rated Capacity
SEP-374	EU-374	Steep Tank 14D	Corn and Steep Water	71,680 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.

# **Table Mill-14. Emission Limits.**

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-	$SO_2$	0.26 lb/hr	ATI 5575 / PTO 5812
307		500 ppmv	LCO 10.12(2)
307	VOC	0.66 lb/hr	ATI 5575 / PTO 5812
SEP-	SO <sub>2</sub>	0.26 lb/hr	ATI 5576 / PTO 5813
308		500 ppmv	LCO 10.12(2)
308	VOC	0.66 lb/hr	ATI 5576 / PTO 5813
SEP-	$SO_2$	0.26 lb/hr	ATI 5577 / PTO 5814
309		500 ppmv	LCO 10.12(2)
309	VOC	0.66 lb/hr	ATI 5577 / PTO 5814
SEP-	SO <sub>2</sub>	0.26 lb/hr	ATI 5578 / PTO 5815
310		500 ppmv	LCO 10.12(2)
310	VOC	0.66 lb/hr	ATI 5578 / PTO 5815
SEP-	$SO_2$	0.26 lb/hr	ATI 5579 / PTO 5816
311		500 ppmv	LCO 10.12(2)
311	VOC	0.66 lb/hr	ATI 5579 / PTO 5816
SEP-	$SO_2$	0.26 lb/hr	ATI 5580 / PTO 5817
312		500 ppmv	LCO 10.12(2)
312	VOC	0.66 lb/hr	ATI 5580 / PTO 5817
SEP-	$SO_2$	0.26 lb/hr	ATI 5581 / PTO 5818
313		500 ppmv	LCO 10.12(2)
313	VOC	0.66 lb/hr	ATI 5581 / PTO 5818
SEP-	$SO_2$	0.26 lb/hr	ATI 5582 / PTO 5819
314		500 ppmv	LCO 10.12(2)
314	VOC	0.66 lb/hr	ATI 5582 / PTO 5819
SEP-	$SO_2$	0.26 lb/hr	ATI 5583 / PTO 5820
315		500 ppmv	LCO 10.12(2)
313	VOC	0.66 lb/hr	ATI 5583 / PTO 5820
SEP-	SO <sub>2</sub>	0.26 lb/hr	ATI 5584 / PTO 5821
316		500 ppmv	LCO 10.12(2)
310	VOC	0.66 lb/hr	ATI 5584 / PTO 5821
SEP-	SO <sub>2</sub>	0.26 lb/hr	ATI 5585 / PTO 5822
317		500 ppmv	LCO 10.12(2)
31/	VOC	0.66 lb/hr	ATI 5585 / PTO 5822

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EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
	SO <sub>2</sub>	0.26 lb/hr	ATI 5586 / PTO 5823
SEP-	_	500 ppmv	LCO 10.12(2)
318	VOC	0.66 lb/hr	ATI 5586 / PTO 5823
	$SO_2$	0.26 lb/hr	ATI 5587 / PTO 5824
SEP-		500 ppmv	LCO 10.12(2)
319	VOC	0.66 lb/hr	ATI 5587 / PTO 5824
	$SO_2$	0.26 lb/hr	ATI 5588 / PTO 5825
SEP-		500 ppmv	LCO 10.12(2)
320	VOC	0.66 lb/hr	ATI 5588 / PTO 5825
	SO <sub>2</sub>	0.26 lb/hr	ATI 5589 / PTO 5826
SEP-		500 ppmv	LCO 10.12(2)
321	VOC	0.66 lb/hr	ATI 5589 / PTO 5826
	SO <sub>2</sub>	0.26 lb/hr	ATI 5590 / PTO 5827
SEP-	502	500 ppmv	LCO 10.12(2)
322	VOC	0.66 lb/hr	ATI 5590 / PTO 5827
	SO <sub>2</sub>	0.26 lb/hr	ATI 5591 / PTO 5828
SEP-	502	500 ppmv	LCO 10.12(2)
323	VOC	0.66 lb/hr	ATI 5591 / PTO 5828
	SO <sub>2</sub>	0.26 lb/hr	ATI 5592 / PTO 5829
SEP-	502	500 ppmv	LCO 10.12(2)
324	VOC	0.66 lb/hr	ATI 5592 / PTO 5829
	SO <sub>2</sub>	0.26 lb/hr	ATI 5593 / PTO 5830
SEP-	502	500 ppmv	LCO 10.12(2)
325	VOC	0.66 lb/hr	ATI 5593 / PTO 5830
	SO <sub>2</sub>	0.26 lb/hr	ATI 5594 / PTO 5831
SEP-		500 ppmv	LCO 10.12(2)
326	VOC	0.66 lb/hr	ATI 5594 / PTO 5831
	$SO_2$	0.26 lb/hr	ATI 5595 / PTO 5832
SEP-		500 ppmv	LCO 10.12(2)
327	VOC	0.66 lb/hr	ATI 5595 / PTO 5832
	$SO_2$	0.26 lb/hr	ATI 5596 / PTO 5833
SEP-		500 ppmv	LCO 10.12(2)
328	VOC	0.66 lb/hr	ATI 5596 / PTO 5833
a E D	SO <sub>2</sub>	0.26 lb/hr	ATI 5597 / PTO 5834
SEP-	_	500 ppmv	LCO 10.12(2)
329	VOC	0.66 lb/hr	ATI 5597 / PTO 5834
	SO <sub>2</sub>	0.26 lb/hr	ATI 5598 / PTO 5835
SEP-		500 ppmv	LCO 10.12(2)
330	VOC	0.66 lb/hr	ATI 5598 / PTO 5835
a==	SO <sub>2</sub>	0.26 lb/hr	ATI 5599 / PTO 5836
SEP-		500 ppmv	LCO 10.12(2)
331	VOC	0.66 lb/hr	ATI 5599 / PTO 5836
	SO <sub>2</sub>	0.26 lb/hr	ATI 5600 / PTO 5837
SEP-		500 ppmv	LCO 10.12(2)
332	VOC	0.66 lb/hr	ATI 5600 / PTO 5837
I			

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
	SO <sub>2</sub>	0.26 lb/hr	ATI 5601 / PTO 5838
SEP-	_	500 ppmv	LCO 10.12(2)
333	VOC	0.66 lb/hr	ATI 5601 / PTO 5838
	SO <sub>2</sub>	0.26 lb/hr	ATI 5602 / PTO 5839
SEP-		500 ppmv	LCO 10.12(2)
334	VOC	0.66 lb/hr	ATI 5602 / PTO 5839
	SO <sub>2</sub>	0.26 lb/hr	ATI 5603 / PTO 5840
SEP-	202	500 ppmv	LCO 10.12(2)
335	VOC	0.66 lb/hr	ATI 5603 / PTO 5840
	SO <sub>2</sub>	0.26 lb/hr	ATI 5604 / PTO 5841
SEP-	202	500 ppmv	LCO 10.12(2)
336	VOC	0.66 lb/hr	ATI 5604 / PTO 5841
	SO <sub>2</sub>	0.26 lb/hr	ATI 5605 / PTO 5842
SEP-	502	500 ppmv	LCO 10.12(2)
337	VOC	0.66 lb/hr	ATI 5605 / PTO 5842
	SO <sub>2</sub>	0.26 lb/hr	ATI 5606 / PTO 5843
SEP-	502	500 ppmv	LCO 10.12(2)
338	VOC	0.66 lb/hr	ATI 5606 / PTO 5843
	SO <sub>2</sub>	0.26 lb/hr	ATI 5607 / PTO 5844
SEP-	502	500 ppmv	LCO 10.12(2)
339	VOC	0.66 lb/hr	ATI 5607 / PTO 5844
	SO <sub>2</sub>	0.26 lb/hr	ATI 5608 / PTO 5845
SEP-	202	500 ppmv	LCO 10.12(2)
340	VOC	0.66 lb/hr	ATI 5608 / PTO 5845
	SO <sub>2</sub>	0.26 lb/hr	ATI 5609 / PTO 5846
SEP-	_	500 ppmv	LCO 10.12(2)
341	VOC	0.66 lb/hr	ATI 5609 / PTO 5846
	SO <sub>2</sub>	0.26 lb/hr	ATI 5610 / PTO 5847
SEP-	_	500 ppmv	LCO 10.12(2)
342	VOC	0.66 lb/hr	ATI 5610 / PTO 5847
GED	$SO_2$	0.26 lb/hr	ATI 5611 / PTO 5848
SEP-		500 ppmv	LCO 10.12(2)
343	VOC	0.66 lb/hr	ATI 5611 / PTO 5848
CED	SO <sub>2</sub>	0.26 lb/hr	ATI 5612 / PTO 5849
SEP-		500 ppmv	LCO 10.12(2)
344	VOC	0.66 lb/hr	ATI 5612 / PTO 5849
CED	SO <sub>2</sub>	0.26 lb/hr	ATI 5613 / PTO 5850
345	VOC	0.66 lb/hr	ATI 5613 / PTO 5850
GED	SO <sub>2</sub>	0.26 lb/hr	ATI 5614 / PTO 5851
		500 ppmv	LCO 10.12(2)
346	VOC	0.66 lb/hr	ATI 5614 / PTO 5851
arr	SO <sub>2</sub>	0.26 lb/hr	ATI 5615 / PTO 5852
		500 ppmv	LCO 10.12(2)
34/	VOC	0.66 lb/hr	ATI 5615 / PTO 5852
SEP- 345 SEP- 346 SEP- 347	VOC SO <sub>2</sub> VOC SO <sub>2</sub>	500 ppmv 0.66 lb/hr 0.26 lb/hr 500 ppmv 0.66 lb/hr 0.26 lb/hr 500 ppmv	LCO 10.12(2) ATI 5613 / PTO 5850 ATI 5614 / PTO 5851 LCO 10.12(2) ATI 5614 / PTO 5851 ATI 5615 / PTO 5852 LCO 10.12(2)

EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
	SO <sub>2</sub>	0.26 lb/hr	ATI 5616 / PTO 5853
SEP-		500 ppmv	LCO 10.12(2)
348	VOC	0.66 lb/hr	ATI 5616 / PTO 5853
	$SO_2$	0.26 lb/hr	ATI 5617 / PTO 5854
SEP-		500 ppmv	LCO 10.12(2)
349	VOC	0.66 lb/hr	ATI 5617 / PTO 5854
	SO <sub>2</sub>	0.26 lb/hr	ATI 5618 / PTO 5855
SEP-		500 ppmv	LCO 10.12(2)
350	VOC	0.66 lb/hr	ATI 5618 / PTO 5855
	SO <sub>2</sub>	0.26 lb/hr	ATI 5619 / PTO 5856
SEP-		500 ppmv	LCO 10.12(2)
351	VOC	0.66 lb/hr	ATI 5619 / PTO 5856
	SO <sub>2</sub>	0.26 lb/hr	ATI 5620 / PTO 5857
SEP-	502	500 ppmv	LCO 10.12(2)
352	VOC	0.66 lb/hr	ATI 5620 / PTO 5857
	SO <sub>2</sub>	0.26 lb/hr	ATI 5621 / PTO 5858
SEP-	502	500 ppmv	LCO 10.12(2)
353	VOC	0.66 lb/hr	ATI 5621 / PTO 5858
	SO <sub>2</sub>	0.26 lb/hr	ATI 5622 / PTO 5859
SEP-	502	500 ppmv	LCO 10.12(2)
354	VOC	0.66 lb/hr	ATI 5622 / PTO 5859
	SO <sub>2</sub>	0.26 lb/hr	ATI 5623 / PTO 5860
SEP-	502	500 ppmv	LCO 10.12(2)
355	VOC	0.66 lb/hr	ATI 5623 / PTO 5860
	SO <sub>2</sub>	0.26 lb/hr	ATI 5624 / PTO 5861
SEP-		500 ppmv	LCO 10.12(2)
356	VOC	0.66 lb/hr	ATI 5624 / PTO 5861
	SO <sub>2</sub>	0.26 lb/hr	ATI 5625 / PTO 5862
SEP-		500 ppmv	LCO 10.12(2)
357	VOC	0.66 lb/hr	ATI 5625 / PTO 5862
	$SO_2$	0.26 lb/hr	ATI 5626 / PTO 5863
SEP-		500 ppmv	LCO 10.12(2)
358	VOC	0.66 lb/hr	ATI 5626 / PTO 5863
a E D	SO <sub>2</sub>	0.26 lb/hr	ATI 5627 / PTO 5864
SEP-	_	500 ppmv	LCO 10.12(2)
359	VOC	0.66 lb/hr	ATI 5627 / PTO 5864
a E D	SO <sub>2</sub>	0.26 lb/hr	ATI 5628 / PTO 5865
SEP-	_	500 ppmv	LCO 10.12(2)
360	VOC	0.66 lb/hr	ATI 5628 / PTO 5865
arr	SO <sub>2</sub>	0.26 lb/hr	ATI 5629 / PTO 5866
SEP-		500 ppmv	LCO 10.12(2)
361	VOC	0.66 lb/hr	ATI 5629 / PTO 5866
a==	SO <sub>2</sub>	0.26 lb/hr	ATI 5630 / PTO 5867
SEP-	_	500 ppmv	LCO 10.12(2)
362	VOC	0.66 lb/hr	ATI 5630 / PTO 5867
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EP	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
CED	SO <sub>2</sub>	0.26 lb/hr	ATI 5631 / PTO 5868
SEP-		500 ppmv	LCO 10.12(2)
363	VOC	0.66 lb/hr	ATI 5631 / PTO 5868
CED	$SO_2$	0.26 lb/hr	ATI 5632 / PTO 5869
SEP-		500 ppmv	LCO 10.12(2)
364	VOC	0.66 lb/hr	ATI 5632 / PTO 5869
CED	$SO_2$	0.26 lb/hr	ATI 5633 / PTO 5870
SEP- 365		500 ppmv	LCO 10.12(2)
303	VOC	0.66 lb/hr	ATI 5633 / PTO 5870
SEP-	$SO_2$	0.26 lb/hr	ATI 5634 / PTO 5871
366		500 ppmv	LCO 10.12(2)
300	VOC	0.66 lb/hr	ATI 5634 / PTO 5871
SEP-	$SO_2$	0.26 lb/hr	ATI 5635 / PTO 5872
367		500 ppmv	LCO 10.12(2)
307	VOC	0.66 lb/hr	ATI 5635 / PTO 5872
SEP-	$SO_2$	0.26 lb/hr	ATI 5636 / PTO 5873
368		500 ppmv	LCO 10.12(2)
308	VOC	0.66 lb/hr	ATI 5636 / PTO 5873
SEP-	$SO_2$	0.26 lb/hr	ATI 5637 / PTO 5874
369		500 ppmv	LCO 10.12(2)
309	VOC	0.66 lb/hr	ATI 5637 / PTO 5874
SEP-	$SO_2$	0.26 lb/hr	ATI 5638 / PTO 5875
370		500 ppmv	LCO 10.12(2)
370	VOC	0.66 lb/hr	ATI 5638 / PTO 5875
SEP-	$SO_2$	0.26 lb/hr	ATI 5639 / PTO 5876
371		500 ppmv	LCO 10.12(2)
3/1	VOC	0.66 lb/hr	ATI 5639 / PTO 5876
SEP-	$SO_2$	0.26 lb/hr	ATI 5640 / PTO 5877
372		500 ppmv	LCO 10.12(2)
312	VOC	0.66 lb/hr	ATI 5640 / PTO 5877
SEP-	$SO_2$	0.26 lb/hr	ATI 5641 / PTO 5878
373		500 ppmv	LCO 10.12(2)
313	VOC	0.66 lb/hr	ATI 5641 / PTO 5878
SEP-	SO <sub>2</sub>	0.26 lb/hr	ATI 5642 / PTO 5879
374		500 ppmv	LCO 10.12(2)
317	VOC	0.66 lb/hr	ATI 5642 / PTO 5879

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# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Mill-15.

		Stack Charac	Stack Characteristics					
	LCPH	Stack Height		Stack Opening	Exhaust	Exhaust Flow		
EP	ATI / PTO Numbers	(feet, above ground)	Discharge Style	(inches, dia.)	Temp.	Rate (acfm)		
SEP-307 - 343	ATI 5575-5611 / PTO 5812-5848	56	Vertical	20 x 20	125	54		
SEP-344 -351	ATI 5612–5619 / PTO 5849-5856	52	Vertical	14 x 18	125	54		
SEP-352	ATI 5620 / PTO 5857	56	Vertical	20 x 20	125	54		
SEP-353 - 360	ATI 5621-5628 / PTO 5865-5865	52	Vertical	14 x 18	125	54		
SEP-361 - 374	ATI 5629-5642 / PTO 5866-5879	56	Vertical	20 x 20	125	54		

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

# **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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: SEP-011, SEP-018** 

**Process Area: 60% GLUTEN MEAL** 

**Table Gluten Meal-1. Emission Unit Description** 

Table Graces Freaz-1. Emission Clife Description						
			Raw			
		EU	Material/	Rated		CE
EP	EU	Description	Fuel	Capacity	CE ID	Description
SEP-011	EU-11A	Gluten Meal	Gluten Meal	7.7 ton/hr	CE-011	Multivane
		Dryer #1				Scrubber
		Bypass				
SEP-011	EU-11B	Gluten Meal	Natural Gas	0.08 MMCF/	CE-011	Multivane
		Dryer #1		hr		Scrubber
		Bypass –				
		Natural Gas				
SEP-018	EU-18A	Gluten Meal	Gluten Meal	15.1 ton/hr	CE-018	Multivane
		Dryer #2				Scrubber
		Bypass				
SEP-018	EU-18B	Gluten Meal	Natural Gas	0.13 MMCF/	CE-018	Multivane
		Dryer #2		hr		Scrubber
		Bypass –				
		Natural Gas				

# **Applicable Requirements**

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

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

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

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

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

LCO 10.12(2)

## **Operational Limits & Requirements**

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

#### **Control Device:**

A multivane scrubber shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5346 / PTO 5220 LCPH ATI 5347 / PTO 5221

# **Operating Limits:**

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

- A. This source shall only exhaust air from the dryer chambers prior to the dryer igniters being activated.
- B. No combustion gases and no feed shall be added to the dryer while the dryer exhaust is venting through the bypass.
- C. The control equipment on this unit shall be maintained and operated according to the manufacturer's specification and good operating practices.

Authority for Requirement: LCPH ATI 5346 / PTO 5220 LCPH ATI 5347 / PTO 5221

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. The following items shall be recorded:

- A. Record the date and duration of each purge exhausted through the bypass stack.
- B. All maintenance and repair completed on the control device.

Authority for Requirement: LCPH ATI 5346 / PTO 5220

LCPH ATI 5347 / PTO 5221

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### **Table Gluten Meal-2.**

		Stack Characteristics				
						Exhaust
	LCPH	Stack Height		Stack	Exhaust	Flow
	ATI / PTO	(feet, above	Discharge	Opening	Temp.	Rate
EP	Numbers	ground)	Style	(inches, dia.)	(°F)	(acfm)
SEP-	5346 / 5220	48	Vertical,	24	70	51,200
011			unobstructed			
SEP-	5347 / 5221	49	Vertical,	24	70	51,200
018			unobstructed			

The temperature and flow rate 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 flow rate 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 r below.	requirements listed
Stack testing is not required at this time.	
Opacity monitoring is not required at this time.	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂

Authority for Requirement: 567 IAC 22.108(3)

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

Yes 🗌 No 🖂

Emission Point ID Number: SEP-013, SEP-050, SEP-051

**Process Area: 60% GLUTEN MEAL** 

**Table Gluten Meal-3. Associated Equipment.** 

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-013	EU-13	60% Gluten Meal Recycle #3	Gluten Meal	3.5 ton/hr	CE-013	Baghouse
SEP-050	EU-50	60% Gluten Meal Recycle #2	Gluten Meal	3.5 ton/hr	CE-050	Baghouse
SEP-051	EU-51	60% Gluten Meal Recycle #1	Gluten Meal	3.5 ton/hr	CE-051	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.

# **Table Gluten Meal-4. Emission Limits.**

EP	EU	Pollutant	<b>Emission Limit(s)</b>	<b>Authority for Requirement</b>
		Ongoity	20%	ATI 5808 / PTO 5768
		Opacity	2070	LCO 10.7
		PM <sub>10</sub>	0.11 lb/hr	ATI 5808 / PTO 5768
SEP-013	EU-13		0.11 lb/hr	ATI 5808 / PTO 5768
		PM		ATI 5808 / PTO 5768
		FIVI	0.1 gr/scf	567 IAC 23.4(7)
				LCO 10.9(1)"g"
		Opacity	20%	ATI 5809 / PTO 5769
		Ораспу	2070	LCO 10.7
		PM <sub>10</sub>	0.07 lb/hr	ATI 5809 / PTO 5769
SEP-050	EU-50		0.07 lb/hr	ATI 5809 / PTO 5769
SEF-030	EO-30	PM		ATI 5809 / PTO 5769
			0.1 gr/scf	567 IAC 23.4(7)
				LCO 10.9(1)"g"
		VOC	0.16 lb/hr	ATI 5809 / PTO 5769
		Opacity	20%	ATI 4826 / PTO 5331
		Ораспу	2070	LCO 10.7
		PM10	0.1 lb/hr	ATI 4826 / PTO 5331
SEP-051	SEP-051 EU-51		0.1 lb/hr	ATI 4826 / PTO 5331
SEP-USI E	EU-31	PM		ATI 4826 / PTO 5331
		FIVI	0.1 gr/dscf	567 IAC 23.4(7)
				LCO 10.9(1)"g"
		VOC	0.31 lb/hr	ATI 4826 / PTO 5331

# **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5808 / PTO 5768

LCPH ATI 5809 / PTO 5769 LCPH ATI 4826 / PTO 5331

## **Operating Limits:**

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

A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.

Authority for Requirement: LCPH ATI 5809 / PTO 5769

LCPH ATI 4826 / PTO 5331

- A. The [control equipment] on this unit shall be maintained according to the manufacturer's specifications and/or good operating practices.
- B. The pressure differential measured across the baghouse shall be greater than one-half (0.5) inch of water column and less than six (6) inches of water column.

Authority for Requirement: LCPH ATI 5808 / PTO 5768

LCPH ATI 5809 / PTO 5769 LCPH ATI 4826 / PTO 5331

#### **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Monitor and record the pressure differential across the baghouse on a weekly basis.
- B. Monitor and record "no visible emissions" observations on a weekly basis and any action resulting from the observation.
- C. Record all maintenance and repair completed on the control device.

Authority for Requirement: LCPH ATI 5808 / PTO 5768

LCPH ATI 5809 / PTO 5769 LCPH ATI 4826 / PTO 5331

Record the weekly average facility grind rate.

Authority for Requirement: LCPH ATI 5809 / PTO 5769 LCPH ATI 4826 / PTO 5331

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### **Table Gluten Meal-5.**

		Stack Charact	Stack Characteristics			
						Exhaust
	LCPH	Stack Height		Stack	Exhaust	Flow
	ATI / PTO	(feet, above	Discharge	Opening	Temp.	Rate
EP	Numbers	ground)	Style	(inches, dia.)	(°F)	(acfm)
SEP-	5808 / 5768	16	Vertical,	8	190	2,486
013			unobstructed			
SEP-	5809 / 5769	16	Vertical,	8	190	1,466
050			unobstructed			
SEP-	4826 / 53310	55	Vertical,	8	143	2,486
051			unobstructed			

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

## **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🖂 1 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)

<sup>&</sup>lt;sup>1</sup> Required for EP 013 only, EP 050 and 051 do not require an O&M plan.

Emission Point ID Number: SEP-190, SEP-191, SEP-192

**Process Area: 60% GLUTEN MEAL** 

Table Gluten Meal-6. Associated Equipment.

Table Glut	able Gluten Meal-6. Associated Equipment.					
		EU	Raw Material/	Rated		CE
EP	EU	Description	Fuel	Capacity	CE ID	Description
SEP-190	EU-190	RTO #1	Gluten Meal		CE-190	RTO #1
SEP-190	EU-190	RTO #1 –	Natural Gas	0.011	CE-190	RTO #1
		Natural Gas		MMCF/hr		
SEP-191	EU-	RTO #2	Gluten Meal		CE-191A	RTO #2
	191A					
SEP-191	EU-	RTO #2 –	Natural Gas	0.011	CE-191A	RTO #2
	191A	Natural Gas		MMCF/hr		
SEP-191	EU-	RTO #3	Gluten Meal		CE-191B	RTO #3
	191B					
SEP-191	EU-	RTO #3 –	Natural Gas	0.011	CE-191B	RTO #3
	191B	Natural Gas		MMCF/hr		
SEP-192	EU-	RTO #4	Gluten Meal		CE-192A	RTO #4
	192A					
SEP-192	EU-	RTO #4 –	Natural Gas	0.011	CE-192A	RTO #4
	192A	Natural Gas		MMCF/hr		
SEP-192	EU-	RTO #5	Gluten Meal		CE-192B	RTO #5
	192B					
SEP-192	EU-	RTO #5 –	Natural Gas	0.011	CE-192B	RTO #5
	192B	Natural Gas		MMCF/hr		
SEP-190,	EU-11A	Gluten Meal	Gluten Meal	7.7 ton/hr	CE-011,	Multivane
SEP-191,		Dryer #1			CE-025	Scrubber,
SEP-192						Entoleter
						Scrubber
SEP-190,	EU-11B	Gluten Meal	Natural Gas	0.08	CE-011,	Multivane
SEP-191,		Dryer #1 –		MMCF/hr	CE-025	Scrubber,
SEP-192		Natural Gas				Entoleter
						Scrubber
SEP-190,	EU-18A	Gluten Meal	Gluten Meal	15.1	CE-018,	Multivane
SEP-191,		Dryer #2		ton/hr	CE-005B	Scrubber,
SEP-192						#2 Packed
						Tower
						Scrubber
SEP-190,	EU-18B	Gluten Meal	Natural Gas	0.13	CE-018,	Multivane
SEP-191,		Dryer #2 –		MMCF/hr	CE-005B	Scrubber,
SEP-192		Natural Gas				#2 Packed
						Tower
						Scrubber
SEP-190,	EU-19A	Gluten Feed	Gluten Meal	15.75	CE-019,	Multivane
SEP-191,		Dryer #1		ton/hr	CE-025	Scrubber,
SEP-192						Entoleter
						Scrubber

		EU	Raw Material/	Rated		CE
EP	EU	Description	Fuel	Capacity	CE ID	Description
SEP-190,	EU-19B	Gluten Feed	Natural Gas	0.08	CE-019,	Multivane
SEP-191,		Dryer #1 –		MMCF/hr	CE-025	Scrubber,
SEP-192		Natural Gas				Entoleter
						Scrubber
SEP-190,	EU-30A	Gluten Feed	Gluten Meal	15.75	CE-030,	Multivane
SEP-191,		Dryer #2		ton/hr	CE-025	Scrubber,
SEP-192						Entoleter
						Scrubber
SEP-190,	EU-30B	Gluten Feed	Natural Gas	0.08	CE-030,	Multivane
SEP-191,		Dryer #2 –		MMCF/hr	CE-025	Scrubber,
SEP-192		Natural Gas				Entoleter
GED 100	E11 42 4	P'1 P 1	P'1 P 1	20 / /	GE 0.42	Scrubber
SEP-190,	EU-43A	Fiber Feed	Fiber Feed	20 ton/hr	CE-043,	Ducon
SEP-191,		Dryer #3			CE-005B	Scrubber,
SEP-192						#2 Packed
						Tower
CED 100	EII 42D	Fil F 4	Natau-1 Can	0.00	CE 042	Scrubber
SEP-190,	EU-43B	Fiber Feed	Natural Gas	0.08 MMCF/hr	CE-043, CE-005B	Ducon
SEP-191, SEP-192		Dryer #3 – Natural Gas		MIMICF/nr	CE-003B	Scrubber, #2 Packed
SEF-192		Natural Gas				Tower
						Scrubber
SEP-190,	EU-	Fiber Feed	Fiber Feed	45 ton/hr	CE-005A,	#1 Packed
SEP-191,	005CA	Dryer #4	1 loci i ccu	45 toll/III	CE-005A,	Tower
SEP-192	(G54A)	Diyer // 1			CL 005C	Scrubber,
	(03 171)					Ducon
						Scrubber
SEP-190,	EU-	Fiber Feed	Natural Gas	0.19	CE-005A,	#1 Packed
SEP-191,	005CB	Dryer #4 –		MMCF/hr	CE-005C	Tower
SEP-192	(G54B)	Natural Gas				Scrubber,
						Ducon
						Scrubber
SEP-190,	EU-	Fiber Feed	Fiber Feed	45 ton/hr	CE-005A,	#1 Packed
SEP-191,	005DA	Dryer #5			CE-005D	Tower
SEP-192	(G55A)	_				Scrubber,
						Ducon
						Scrubber
SEP-190,	EU-	Fiber Feed	Natural Gas	0.19	CE-005A,	#1 Packed
SEP-191,	005DB	Dryer #5 –		MMCF/hr	CE-005D	Tower
SEP-192	(G55B)	Natural Gas				Scrubber,
						Ducon
						Scrubber

# **Applicable Requirements**

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

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

**Table Gluten Meal-7. Emission Limits.** 

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
		0	NI- Winita Eminion 2	ATI 4900 / PTO 5783
		Opacity	No Visible Emissions <sup>2</sup>	LCO 10.5(3)"b"
		$PM_{10}^{4}$	3.00 lb/hr <sup>1</sup>	ATI 4900 / PTO 5783
			3.00 lb/hr	ATI 4900 / PTO 5783
		$PM^4$		ATI 4900 / PTO 5783
CED 100	EII 100	PM	0.1 gr/scf	567 IAC 23.4(7)
SEP-190	EU-190		_	LCO 10.9(1)"g"
		$SO_2$	7.30 lb/hr <sup>1</sup>	ATI 4900 / PTO 5783
		NO <sub>x</sub>	13.78 lb/hr <sup>1,3</sup>	ATI 4900 / PTO 5783
		NOx	27.55 lb/hr <sup>1,3</sup>	ATI 4900 / PTO 5783
		VOC <sup>4</sup>	≤ 10 ppm (as propane)	ATI 4900 / PTO 5783
		$CO^4$	≤ 100 ppm	ATI 4900 / PTO 5783
			pacity No Visible Emissions <sup>2</sup>	ATI 4901 / PTO 5784
		Opacity  PM <sub>10</sub> <sup>4</sup>		ATI 4902 / PTO 5785
				LCO 10.5(3)"b"
			6.01 lb/hr <sup>1</sup>	ATI 4901 / PTO 5784
				ATI 4902 / PTO 5785
		PM <sup>4</sup>	6.01 lb/hr <sup>1</sup>	ATI 4901 / PTO 5784
			0.01 10/111	ATI 4902 / PTO 5785
SEP-191	EU-191		0.1 gr/scf	ATI 4901 / PTO 5784
SEP-192	EU-191		0.1 g1/301	ATI 4902 / PTO 5785
SLI-172	LO-172	$SO_2$	14.61 lb/hr <sup>1</sup>	ATI 4901 / PTO 5784
		502	14.01 10/111	ATI 4902 / PTO 5785
		NO <sub>x</sub>	27.55 lb/hr <sup>1,3</sup>	ATI 4901 / PTO 5784
		NOX	27.33 10/III	ATI 4902 / PTO 5785
		VOC <sup>4</sup>	$\leq 10 \text{ ppm (as propane)}$	ATI 4901 / PTO 5784
		¥ 0 C	= 10 ppin (as propane)	ATI 4902 / PTO 5785
		CO <sup>4</sup>	≤ 100 ppm	ATI 4901 / PTO 5784
				ATI 4902 / PTO 5785

<sup>&</sup>lt;sup>1</sup> Emission rate used to demonstrate no exceedance of the National Ambient Air Quality Standards (NAAQS).

<sup>&</sup>lt;sup>2</sup> 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.

- <sup>3</sup> EP190 shall not exceed 13.78 lb/hr when RTO #1 is the only unit operating. The combined limit for all three EPs (190, 191 and 192) is 27.55 lb/hr.
- <sup>4</sup> All emission limitations (including operating parameter ranges and limits) apply at all times when the process equipment is operating, except, in the case of process equipment or pollution control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR Part 63. These startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable, startup and shutdown of pollution control systems will be performed during times when process equipment is also shut down. Also, ADM shall, to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions. In addition, for dryers controlled by RTOs not designed for on-line regeneration (i.e., bake-out) and that are not preceded by a WESP or equivalent device(s), the emission limitations do not apply to periods of off-line RTO regeneration not to exceed 50 dryer operating hours per calendar year and individual off-line RTO regeneration periods not to exceed 12 dryer operating hours. For RTOs servicing more than one dryer, a dryer operating hour is any hour in which one or more of the dryers is on-line. Off-line RTO regeneration while all associated dryers are shut down is not included in these operating limitations. Also, off-line RTO regeneration periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to perform an off-line RTO regeneration) are not included in these limitations (i.e., ADM may perform "preventative" off-line RTO regenerations during periods when the RTO is off-line for other reasons such as when the RTO is off-line due to maintenance or malfunction of upstream PM control equipment which requires bypass of the RTO).

# **Operational Limits & Requirements**

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

### **Control Device:**

The control devices listed below shall be installed to control emissions. All control equipment shall be maintained properly and operated at all times the air pollution source is in operation unless specified otherwise in this permit. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 16 shall be installed, maintained and operating during the operation of the emission unit and control device at all times. The wet electrostatic precipitators #1 (CE-190B), #2 (CE-191C) and #3 (CE-191D), #4 (CE-192C) and #5 (CE-192D) are installed to extend the life of the RTOs and are not required to operate as a condition of this permit.

#### **Table Gluten Meal-8.**

<b>Emission Unit</b>	CE	CE Description
011A, 011B, 018A, 018B, 019A, 019B,	CE-190, CE-191A, CE-	#1 RTO, #2 RTO, #3
030A, 030B, 043A, 043B, 005CA,	191B, CE-192A, CE-	RTO, #4 RTO, #5 RTO
005CB, 005DA, 005DB, 190, 191A,	192B	
191B, 192A, 192B		
005A, 005CA, 005CB, 005DA, 005DB	CE-005A	#1 Packed Tower
		Scrubber
018, 043	CE-005B	#2 Packed Tower
		Scrubber
005CA, 005CB	CE-005C	Ducon Scrubber
005DA, 005DB	CE-005D	Ducon Scrubber
011A, 011B	CE-011	Ducon Scrubber
018A, 018B	CE-018	Ducon Scrubber
019A, 019B	CE-019	Ducon Scrubber
030A, 030B	CE-030	Ducon Scrubber
043A, 043B	CE-043	Ducon Scrubber
019A, 019B, 030A, 030B, 011A, 011B	CE-025	Entoleter Scrubber

# **Operating Limits:**

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

# Dryers

- A. Each gluten and fiber feed dryer (EU-011A, EU018A, EU-019A, EU-030A, EU-043A, EU-005CA, EU-005DA) outlet temperature shall operate ≤ 391° F based upon an 8-hour rolling average.
- B. Each gluten and fiber feed dryer (EU-011A, EU018A, EU-019A, EU-030A, EU-043A, EU-005CA, EU-005DA) inlet temperature shall operate ≤ 1265° F based upon an 8-hour rolling average.

#### Scrubbers

- C. The Packed Tower Scrubbers #1 & #2 (CE-005A and CE-005B), Ducon Scrubbers (CE-005C, CE-005D, CE-018, CE-019, CE-030, CE-043), Entoleter Centrified Super Scrubber (CE-025), and Ducon Scrubber (CE-011) shall be operated at all times the equipment each device controls is in operation.
- D. The recirculation water flow rate to each Packed Tower Scrubber (CE-005A and CE-005B) shall be maintained  $\geq$  5340 gpm.
- E. The differential pressure across each Packed Tower Scrubber (CE-005A and CE-005B) shall be maintained between 1" to 14" w.c.
- F. The scrubbing liquor pH to each packed tower scrubber (CE-005A and CE-005B) shall be maintained > 5.4.
- G. The Entoleter Super Scrubber (CE-025) make-up water flow rate shall be maintained ≥ 115 gpm.

- H. The differential pressure across the Entoleter Super Scrubber (CE-025) shall be maintained between 1" to 10" w.c.
- I. The scrubbing liquor pH to the Entoleter Super Scrubber (CE-025) shall be maintained ≥ 8.0.

#### Regenerative Thermal Oxidizer (RTO)

- J. The one-hour average combustion temperature of the RTO (CE-190, 191A, 191B, 192A, and 192B) shall be maintained  $\geq 1550^{\circ}$  F.
- K. RTO (CE-190, 191A, 191B, 192A, and 192B) shall only combust natural gas.
- L. As an approved alternate operating scenario, RTOs CE-190, CE-191A, CE-191B, CE-192A, or CE-192B may operate during periods when CE-190, CE-191A, CE-191B, CE-192A, or CE-192B is not operating provided that sufficient RTO capacity is maintained as defined by the minimum temperature requirements specified in condition J. All conditions specified in this permit applicable to CE-190, 191A, CE-191B, CE-192A and CE-192B are applicable to CE-190, CE-191A, CE-191B, CE-192A and CE-192B during such periods of operation.
- M. RTO (CE-190, CE-191A, CE-191B, CE-192A, or CE-192B,) shall be equipped with a thermocouple or equivalent device capable of continuously monitoring the combustion chamber temperature of the RTO. The thermocouple or equivalent device shall monitor temperature on a continuous basis, with the one-hour average temperature recorded every hour. The thermocouple or equivalent device shall be installed, operated, calibrated, and maintained according to the manufacturer's specifications.

#### General Operating Limits

- N. Routine observations conducted at least once each week during daylight hours of scrubbers and RTOs shall be conducted to determine whether there are visible emissions from the stack, leaks, atypical operating parameters (e.g. pressure differential, temperature) or other indications that may necessitate corrective action. Corrective action shall be taken immediately if necessary.
- O. All control equipment on the emission units shall be maintained according to the manufacturer's specifications and good operating practices.
- P. The facility shall monitor the stack for opacity on a weekly basis during a period when the emission unit on this emission point is at or near full capacity and record the reading. 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.
- Q. The ADM Corn Processing Wet Mill shall not grind more than 450,000 bushels of corn per day based on a 52-week rolling average.

Authority for Requirement: LCPH ATI 4900 / PTO 5783

LCPH ATI 4901 / PTO 5784 LCPH ATI 4902 / PTO 5785

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

#### Dryers

- A. Record the inlet temperature of each gluten and fiber feed dryer (EU-011A, EU018A, EU-019A, EU-030A, EU-043A, EU-005CA, EU-005DA) based upon an 8-hr rolling average.
- B. Record the outlet temperature of each gluten and fiber feed dryer (EU-011A, EU018A, EU-019A, EU-030A, EU-043A, EU-005CA, EU-005DA) based upon an 8-hr rolling average.

#### Scrubbers

- C. Record the recirculation water flow rate to Packed Tower Scrubbers #1 and #2 (CE-005A and CE-005B) on a daily basis.
- D. Record the differential pressure across each Packed Tower Scrubber (CE-005A and CE-005B) on a daily basis.
- E. Record the scrubbing liquor pH to each Packed Tower Scrubber (CE-005A and CE-005B) on a daily basis.
- F. Record the make-up flow rate to the Entoleter Super Scrubber (CE-025) on a daily basis.
- G. Record the differential pressure across the Entoleter Super Scrubber (CE-025) on a daily basis.
- H. Record the scrubbing liquor pH to the Entoleter Super Scrubber (CE-025).

#### **RTOs**

- I. Record the RTO (CE-190, 191A, 191B, 192A, and 192B) combustion chamber temperature (monitored as a one-hour average).
- J. Record pressure drop across each RTO (CE-190, 191A, 191B, 192A, and 192B) on a daily basis while the control equipment is in operation.
- K. Record the date and dryer operating hours during periods of off-line RTO regeneration.

## General Recordkeeping

- L. Record the results of the weekly routine maintenance checks of the scrubbers and RTOs associated with this emission point and any corrective action that is taken.
- M. Record the results of the preventative maintenance inspections completed for the RTOs (CE-190, 191A, 191B, 192A, and 192B).
- N. Maintain a written record of the weekly opacity observation and any action resulting from the observation. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit.
- O. Records of all maintenance and repair completed on the control devices.
- P. Record the weekly average facility grind rate.

Authority for Requirement: LCPH ATI 4900 / PTO 5783

LCPH ATI 4901 / PTO 5784 LCPH ATI 4902 / PTO 5785

#### **Reporting Requirements:**

The following information shall be submitted to this department by the 30<sup>th</sup> of each month for the previous quarter (January 30, April 30, July 30 and October 30).

- A. Submit a quarterly report summarizing the weekly average facility grind rate.
- B. Submit a quarterly report summarizing the dryer operating hours during periods of offline RTO regeneration and the date(s) of occurrence.
- C. Submit semi-annual report listing deviations from the operating limits specified in conditions 15 and 16 [Operating Limits and Operating Condition Monitoring and Recordkeeping]. The Title V annual compliance certification and semi-annual compliance certification may be used to satisfy this requirement.

Authority for Requirement: LCPH ATI 4900 / PTO 5783

LCPH ATI 4901 / PTO 5784 LCPH ATI 4902 / PTO 5785

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Gluten Meal-9.

EP	LCPH ATI/PTO	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flow Rate (acfm)
SEP-	ATI 4900 /	150	Vertical,	120	275	200,000
190	PTO 5783		unobstructed			
SEP-	ATI 4901 /	150	Vertical,	120	275	200,000
191	PTO 5784		unobstructed			
SEP-	ATI 4902 /	150	Vertical,	120	275	200,000
192	PTO 5785		unobstructed			

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

#### **Monitoring Requirements**

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

#### **Stack Testing:**

The following stack tests shall be performed:

EP 192:

 $Pollutant - PM_{10}$ 

1st Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter

1st Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

#### EP 190, 191, 192:

 $Pollutant - SO_x \\$ 

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term

Test Method: Method 6C (40 CFR 60) or approved alternative

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – CO

1st Stack Test to be Completed within the first year of permit term

2<sup>nd</sup> Stack Test to be Completed between –2.5 years to 3.5 years of permit term

Test Method – Method 10 (40 CFR 60) or approved alternative

Authority for Requirement – 567 IAC 22.108(3)

#### EP 191 and 192:

Pollutant – NOx

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term

Test Method: Method 7E (40 CFR 60) or approved alternative

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – VOC

1st Stack Test to be Completed within the first two years of permit term

Test Method: Method 25A (40 CFR 60) or approved alternative

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)

#### **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.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes ⊠¹ No □
Compliance Assurance Monitoring (CAM) Plan Required?	Yes □² 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)

JAK

<sup>&</sup>lt;sup>1</sup> Facility maintained operation & maintenance plans are required for SEP-190, SEP-191 and SEP-192 for the scrubbers and RTOs.

<sup>&</sup>lt;sup>2</sup> Compliance Assurance Monitoring have been waived due to CAM equivalent monitoring required by PTOs 5783/5784/5785.

**Emission Point ID Number: SEP-226, SEP-230** 

**Process Area: 60% GLUTEN MEAL** 

Table Gluten Meal-10. Associated Equipment.

			Raw Material/	
EP	EU	EU Description	Fuel	Rated Capacity
SEP-226	EU-226	Gluten Filters 1-15, 19-22 and	Gluten	18,750 bu/hr
		Vacuum Pumps 1-4		
SEP-230	EU-230	16, 17, 18 Gluten Filter Pumps	Gluten	2,446 bu/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.

#### **Table Gluten Meal-11. Emission Limits.**

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
				ATI 4839 / PTO 5485
		$SO_2$	500 ppmv	567 IAC 23.3(3)"e"
SEP-226	EU-226			LCO 10.12(2)
		VOC	0.04 lb/hr	ATI 4839 / PTO 5485
			0.19 tpy	A11 4639 / F1O 3463
	EU-230		500 ppmv	ATI 4838 / PTO 5486
		$SO_2$		567 IAC 23.3(3)"e"
SEP-230				LCO 10.12(2)
		VOC	0.04 lb/hr	ATI 4838 / PTO 5486
		VO	VOC	0.16 tpy

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Gluten Meal-12.

		Stack Characteristics				
EP	LCPH ATI / PTO Numbers	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flow Rate (scfm)
SEP-226	4839 / 5485	58	Horizontal	34	124	140
SEP-230	4838 / 5486	72	Vertical,	8	99	103
			unobstructed			

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

<u> Mionitoring Requirements</u>	
The owner/operator of this equipment shall comply with the monitoring below.	g requirements listed
Stack testing is not required at this time.	
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)

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Emission Point ID Number: SEP-019, SEP-026, SEP-027, SEP-030, SEP-043 Process Area: 21% FIBER FEED

Table Fiber Feed-1. Associated Equipment.

1 able Fib	er reeu-1. A	Associated Equi	f			
			Raw			C.T.
		EU	Material/	Rated		CE
EP	EU	Description	Fuel	Capacity	CE ID	Description
SEP-019	EU-19A	#1 Fiber	Fiber Feed	15.75 ton/hr	CE-019	Multivane
		Feed Dryer				Scrubber
		Bypass				
SEP-019	EU-19B	#1 Fiber	Natural Gas	0.08 MMCF/	CE-019	Multivane
		Feed Dryer		hr		Scrubber
		Bypass –				
		Natural Gas				
SEP-026	EU-	#4 Fiber	Fiber Feed	45 ton/hr	CE-026	Multivane
	005CA	Feed Dryer				Scrubber
		Bypass				
SEP-026	EU-	#4 Fiber	Natural Gas	0.19 MMCF/	CE-026	Multivane
	005CB	Feed Dryer		hr		Scrubber
		Bypass –				
		Natural Gas				
SEP-027	EU-	#5 Fiber	Fiber Feed	45 ton/hr	CE-027	Multivane
	005DA	Feed Dryer				Scrubber
		Bypass				
SEP-027	EU-	#5 Fiber	Natural Gas	0.19 MMCF/	CE-027	Multivane
	005DB	Feed Dryer		hr		Scrubber
		Bypass –				
		Natural Gas				
SEP-030	EU-30A	#2 Fiber	Fiber Feed	15.75 ton/hr	CE-030	Multivane
		Feed Dryer				Scrubber
		Bypass				
SEP-030	EU-30B	#2 Fiber	Natural Gas	0.08 MMCF/	CE-030	Multivane
		Feed Dryer		hr		Scrubber
		Bypass –				
		Natural Gas				
SEP-043	EU-43A	#3 Fiber	Fiber Feed	20 ton/hr	CE-043	Multivane
		Feed Dryer				Scrubber
		Bypass				
SEP-043	EU-43B	#3 Fiber	Natural Gas	0.08 MMCF/	CE-043	Multivane
		Feed Dryer		hr		Scrubber
		Bypass -				
		Natural Gas				

## **Applicable Requirements**

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

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

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

Authority for Requirement: 567 IAC 23.4(7) LCO 10.9(1)"g"

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

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

LCO 10.12(2)

### **Operational Limits & Requirements**

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

## **Operating Limits:**

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

- A. This source shall only exhaust air from the dryer chambers prior to the dryer igniters being activated.
- B. No combustion gases and no feed shall be added to the dryer while the dryer exhaust is venting through the bypass.
- C. The control equipment on this unit shall be maintained and operated according to the manufacturer's specification and good operating practices.

Authority for Requirement: LCPH ATI 5348 / PTO 5222

LCPH ATI 5349 / PTO 5223 LCPH ATI 5350 / PTO 5224 LCPH ATI 5351 / PTO 5225 LCPH ATI 5352 / PTO 5226

## **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. The following items shall be recorded:

- A. Record the date and duration of each purge exhausted through the bypass stack.
- B. All maintenance and repair completed on the control device.

Authority for Requirement: LCPH ATI 5348 / PTO 5222

LCPH ATI 5349 / PTO 5223 LCPH ATI 5350 / PTO 5224

## LCPH ATI 5351 / PTO 5225 LCPH ATI 5352 / PTO 5226

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Fiber Feed-2.

		Stack Characteristics				
		Stack Height		Stack		Exhaust Flow
	LCPH	(feet, above	Discharge	<b>Opening</b>	Exhaust	Rate
EP	ATI / PTO	ground)	Style	(inches, dia.)	Temp. (°F)	(acfm)
SEP-	5348 / 5222	48	Vertical,	24	70	51,200
019			unobstructed			
SEP-	5349 / 5223	60	Vertical,	30	70	80,000
026			unobstructed			
SEP-	5350 / 5224	60	Vertical,	30	70	80,000
027			unobstructed			
SEP-	5351 / 5225	50	Vertical,	24	70	51,200
030			unobstructed			
SEP-	5352 / 5226	57	Vertical,	24	70	51,200
043			unobstructed			

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

## **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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)

**Process Area: 21% FIBER FEED** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-32 Emissions Control Equipment ID Number: CE-032 Emissions Control Equipment Description: Baghouse

Emission Units vented through this Emission Point: EU-32B Cooler 2, EU-32C Stedman Mills

Emission Unit Description: 21% Gluten Feed Stedman Mill D.C.

Raw Material/Fuel: Fiber Feed Rated Capacity: 126.6 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): 20%

Authority for Requirement: LCPH ATI 4820 / PTO 0

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: LCPH ATI 4820/ PTO 0

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

Pollutant: Particulate Matter Emission Limit(s): 0.20 lb/hr

Authority for Requirement: LCPH ATI 4820 / PTO 0

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 6.11 lb/hr

Authority for Requirement: LCPH ATI 4820 / PTO 0

## **Operational Limits & Requirements**

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

#### **Control Device:**

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A baghouse shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times. All appropriate probes, monitors and gauges

needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and in good operating condition.

Authority for Requirement: LCPH ATI 4820/ PTO 0

### **Operating Limits:**

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

- A. The differential pressure measured across the baghouse, CE-032, shall be maintained between 0.1 inches of water column and 6 inches of water column, with the exception of unit startup.
- B. The control equipment on this unit shall be maintained according to the manufacturer's specification and good operating practices.
- C. The facility-wide grind rate shall be limited to 450,000 bushel of corn per day based on a 52-week rolling average.

Operation parameters delineated at the time of final compliance inspections and testing shall be documented and become incorporated into the conditions of the final Permit to Operate.

Authority for Requirement: LCPH ATI 4820 / PTO 0

## **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Monitor and record any maintenance and repair completed on the control equipment.
- C. Monitor and record the differential pressure on the baghouse on a weekly basis while the control equipment and emission units are in operation.
- D. Calculate and record the weekly facility grind rate average based on 52-week rolling average.

Authority for Requirement: LCPH ATI 4820 / PTO 0

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

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)

**Process Area: 21% FIBER FEED** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-211 Emissions Control Equipment ID Number: CE-211

Emissions Control Equipment Description: Packed Tower Scrubber

Emission Unit vented through this Emission Point: EU-211

Emission Unit Description: Feedhouse Miscellaneous Fugitive Emission Sources

Raw Material/Fuel: Fiber Feed Rated Capacity: 126.6 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): 20%

Authority for Requirement: LCPH ATI 4841 / PTO 6331

LCO 10.7

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 6.11 lb/hr

Authority for Requirement: LCPH ATI 4841 / PTO 6331

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

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

LCO 10.12(2)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 2.72 lb/hr

Authority for Requirement: LCPH ATI 4841 / PTO 6331

### **Operational Limits & Requirements**

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

#### **Control Device:**

A packed bed scrubber shall be installed to control SO<sub>2</sub> emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4841 / PTO 6331

## **Operating Limits:**

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

- A. The differential pressure measured across the scrubber, CE-211, shall be maintained between 0.5 inches of water column and 10 inches of water column, with the exception of unit startup.
- B. The fresh water flow rate to the scrubber, CE-211, shall be maintained at 133 gallons per minute or higher.
- C. The control equipment on this unit shall be maintained according to the manufacturer's specification and good operating practices.
- D. The facility-wide grind rate shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.

Authority for Requirement: LCPH ATI 4841 / PTO 6331

## **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Monitor and record any maintenance and repair completed on the control equipment.
- C. Monitor and record the differential pressure on the wet scrubber on a daily basis while the control equipment and emission units are in operation.
- D. Monitor and record the fresh water flow rate in the scrubber on a daily basis.
- E. Calculate and record the weekly facility grind rate average based on a 52-week rolling average.

Authority for Requirement: LCPH ATI 4841 / PTO 6331

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 73 Discharge Style: Vertical, Unobstructed Stack Opening, (inches, diameter): 30

Exhaust Temperature (°F): 75 Exhaust Flow Rate (scfm): 11,462

Authority for Requirement: LCPH ATI 4841/ PTO 6331

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

## **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – Sulfur Dioxide (SO<sub>2</sub>) 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 6C (40 CFR 60) or approved alternative Authority for Requirement – 567 IAC 22.108(3)

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

<sup>&</sup>lt;sup>1</sup> CAM has been waived. PTO 6331 has CAM equivalent monitoring and recordkeeping required. Authority for Requirement: 567 IAC 22.108(3)

**Process Area: 21% FIBER FEED** 

Table Fiber Feed-3. Associated Equipment.

Tubic Tibel Teed 5: Associated Equipment						
		EU	Raw Material/	Rated		CE
EP	EU	Description	Fuel	Capacity	CE ID	Description
SEP-271	EU-32A	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32B	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32C	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32D	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32E	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32F	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32G	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-32H	Stedman Mill	Fiber Feed	15 ton/hr	CE-271	Baghouse
SEP-271	EU-271	#1 Vertical	Fiber Feed	60 ton/hr	CE-271	Baghouse
		Fiber Cooler				

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 6188 / PTO 6529

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.93 lb/hr

Authority for Requirement: LCPH ATI 6188 / PTO 6529

Pollutant: Particulate Matter Emission Limit(s): 0.93 lb/hr

Authority for Requirement: LCPH ATI 6188 / PTO 6529

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 3.0 lb/hr

Authority for Requirement: LCPH ATI 6188 / PTO 6529

### **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be installed to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6188 / PTO 6529

#### **Operating Limits:**

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

A. The pressure drop across the baghouse shall be between 0.5 and 8 inches of water column.

Authority for Requirement: LCPH ATI 6188 / PTO 6529

## **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. The owner or operator shall monitor and record pressure drop reading across the baghouse on a weekly basis.
- C. The owner or operator shall record all maintenance work performed on the baghouse.

Authority for Requirement: LCPH ATI 6188 / PTO 6529

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 76 Discharge Style: Vertical, Unobstructed Stack Opening, (inches, diameter): 36 Exhaust Temperature (°F): 120

Exhaust Temperature (°F): 120 Exhaust Flow Rate (acfm): 27,000

Authority for Requirement: LCPH ATI 6188 / PTO 6529

The temperature and flow rate 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 flow rate 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.

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## **Monitoring Requirements**

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

#### **Stack Testing:**

Pollutant – Particulate Matter

1st Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

## **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ⊠ No □¹
Authority for Requirement: 567 IAC 22.108(3)	

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

**Process Area: GERM** 

**Associated Equipment** 

Associated Emission Unit ID Numbers: EU-6

Emissions Control Equipment ID Number: CE-006A, CE-006B, CE-006C

Emissions Control Equipment Description: Cyclone, Cyclone, Horizontal Cross Flow Scrubber

Emission Unit vented through this Emission Point: EU-6 Emission Unit Description: #2 Fluid Bed Germ Dryer

Raw Material/Fuel: Corn Germ Rated Capacity: 32,344 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): 20%

Authority for Requirement: LCPH ATI 4815/ PTO 5974

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.35 lb/hr

Authority for Requirement: LCPH ATI 4815 / PTO 5974

Pollutant: Particulate Matter Emission Limit(s): 4.35 lb/hr

Authority for Requirement: LCPH ATI 4815 / PTO 5974

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

Authority for Requirement: LCPH ATI 4815 / PTO 5974

567 IAC 23.4(7) LCO 10.9(1)"g"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 13.08 lb/hr

Authority for Requirement: LCPH ATI 4815 / PTO 5974

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

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

LCO 10.12(2)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 10.13 lb/hr

Authority for Requirement: LCPH ATI 4815 / PTO 5974

## **Operational Limits & Requirements**

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

#### **Control Device:**

Dual cyclone and a wet scrubber shall be installed to control particulate matter and sulfur dioxide emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4815 / PTO 5974

## **Operating Limits:**

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

- A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.
- B. Recirculated water flow to the scrubber shall be maintained at a minimum of 600 gpm.
- C. Fresh water (make up) flow to the scrubber shall be maintained at a minimum of 32 gallons per minute or greater.
- D. The differential pressure measured across the scrubber shall be greater than 0.5 inches of water column and less than 14 inches of water column.
- E. The control devices on the unit shall be maintained according to the manufacturer's specifications and/or good operating practices.

Authority for Requirement: LCPH ATI 4815 / PTO 5974

### **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and authorized representatives.

The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.

- A. Record the weekly average facility grind rate.
- B. Monitor and record the pressure differential across the wet scrubber on a weekly basis.
- C. Monitor and record the recirculated flow to the scrubber on a daily basis.
- D. Monitor and record the fresh water flow to the scrubber on a daily basis.

E. Record all maintenance and repair completed on the control devices.

## **Reporting Requirements:**

The following information shall be submitted to this department by the 30<sup>th</sup> of each month for the previous quarter (January 30, April 30, July 30, and October 30).

A. Submit a quarterly report summarizing the 52-week rolling average facility grind rate.

Authority for Requirement: LCPH ATI 4815 / PTO 5974

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 142 Discharge Style: Vertical, Unobstructed Stack Opening, (inches, diameter): 72 Exhaust Temperature (°F): 125

Exhaust Flow Rate (acfm): 90,749

Authority for Requirement: LCPH ATI 4815 / PTO 5974

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

#### **Monitoring Requirements**

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

### **Stack Testing:**

Pollutant – Sulfur Dioxide (SO<sub>2</sub>) 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 6C (40 CFR 60) or approved alternative 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)

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes No 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)

<sup>&</sup>lt;sup>1</sup> Facility maintained operation & maintenance plans are required for PM, PM<sub>10</sub> and VOC.

<sup>&</sup>lt;sup>2</sup> Compliance Assurance Monitoring plan has been waived. PTO 5974 has CAM equivalent monitoring required.

**Process Area: GERM** 

**Associated Equipment** 

Associated Emission Unit ID Numbers: EU-15

Emissions Control Equipment ID Number: CE-015A, CE-015B, CE-015C

Emissions Control Equipment Description: Cyclone, Cyclone, Entoleter Scrubber

Emission Unit vented through this Emission Point: EU-15 Emission Unit Description: #1 Fluid Bed Germ Dryer

Raw Material/Fuel: Corn Germ Rated Capacity: 95,000 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): 10%

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.79 lb/hr

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

Pollutant: Particulate Matter

Emission Limit(s): 2.79 lb/hr, 0.1 gr/scf Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

LCPH ATI 4541 / PTO 4713R1

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)<sup>1</sup>

Emission Limit(s): 90% control or  $\leq$  20 ppmv

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 5.17 lb/hr, 22.64 tpy

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

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<sup>&</sup>lt;sup>1</sup> All emission limitations (including operating parameter ranges and limits) apply at all times when the process equipment is operating, except, in the case of process equipment or pollution control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR 63. These startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable,

startup and shutdown of pollution control systems will be performed during times when process equipment is also shut down. Also, ADM shall to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions.

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

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

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

#### **Control Device:**

A wet scrubber shall be installed to control sulfur dioxide and particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

## **Operating Limits:**

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

- A. Water flow to the scrubber shall be greater than 400 gallons per minute.
- B. pH of the scrubbing liquor shall be maintained above 6.8.
- C. Pressure drop across the scrubber shall be maintained between 1-10 inches of water.
- D. The ADM Corn Processing Wet Mill shall not grind more than 450,000 bushels of corn per day based on a 52-week rolling average.

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

### **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Monitor and record the differential pressure on the scrubber on a daily basis while the control equipment is in operation.
- C. Monitor and record the scrubber water flow rate on a daily basis.
- D. Monitor and record scrubber pH on a daily basis.
- E. Monitor and record any maintenance and repair completed on the control unit.
- F. Record the weekly average facility grind rate.

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G. Maintain copies of source test results until a new approved representative test is conducted or for five (5) years, whichever is longer

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

## **Quarterly Report Requirements:**

The following information shall be submitted to this department by the 15<sup>th</sup> of each month for the previous quarter (January 15, April 15, July 15, and October 15).

A. Submit a quarterly report summarizing the weekly average grind rate for each month of the quarter.

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 146 Discharge Style: Vertical, Unobstructed Stack Opening, (inches, diameter): 60 Exhaust Temperature (°F): 135 Exhaust Flow Rate (scfm): 65,000

Authority for Requirement: LCPH ATI 4541 / PTO 4713R1

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

#### **Monitoring Requirements**

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

### **Stack Testing:**

The following stack tests shall be performed:

 $Pollutant-PM_{10} \\$ 

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1st Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

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

1<sup>st</sup> Stack Test to be Completed by – within first two years of permit term Test Method – Method 6C (40 CFR 60) or approved alternative 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).

## **Opacity Monitoring:**

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 >10 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

Yes No 
Yes No 
1 Compliance Assurance Manitering plan has been weived. PTO 4712P1 has CAM agriculant.

<sup>1</sup> Compliance Assurance Monitoring plan has been waived. PTO 4713R1 has CAM equivalent monitoring required.

Authority for Requirement: 567 IAC 22.108(3)

**Process Area: GERM** 

Table Germ-1. Associated Equipment.

			Raw			
			Material/	Rated		
EP	EU	<b>EU Description</b>	Fuel	Capacity	CE-ID	<b>CE Description</b>
SEP-016	EU-12	Fiber Feed – Wet	Fiber Feed	57.5	CE-16E	Horizontal Cross
		Feed Tank		ton/hr		Flow Scrubber
SEP-016	EU-	#1 Steam Tube	Corn	32 ton/hr	CE-16A	Cyclone,
	16A	Germ Dryer	Germ		CE-16E	Horizontal Cross
						Flow Scrubber
SEP-016	EU-	#2 Steam Tube	Corn	32 ton/hr	CE-16B	Cyclone,
	16B	Germ Dryer	Germ		CE-16E	Horizontal Cross
						Flow Scrubber
SEP-016	EU-	#3 Steam Tube	Corn	32 ton/hr	CE-16C	Cyclone,
	16C	Germ Dryer	Germ		CE-16E	Horizontal Cross
						Flow Scrubber
SEP-016	EU-	#4 Steam Tube	Corn	32 ton/hr	CE-16D	Cyclone,
	16D	Germ Dryer	Germ		CE-16E	Horizontal Cross
						Flow Scrubber

# **Applicable 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): 10%<sup>2</sup>

Authority for Requirement: LCPH ATI 4818 / PTO 5782

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 1.65 lb/hr<sup>1</sup>

Authority for Requirement: LCPH ATI 4818 / PTO 5782

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

LCPH ATI 4818 / PTO 5782

Pollutant: Particulate Matter Emission Limit(s): 1.65 lb/hr<sup>1</sup>

Authority for Requirement: LCPH ATI 4818 / PTO 5782

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 4.7 lb/hr<sup>1</sup>

Authority for Requirement: LCPH ATI 4818/ PTO 5782

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

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

LCO 10.12(2)

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 21.36 lb/hr<sup>1</sup>

Authority for Requirement: LCPH ATI 4818/ PTO 5782

Table Germ-2. 1992 Corn Grind Expansion Emission Limits

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-016	EU-16A	Opacity	10%	1992 Corn Grind Expansion
	EU-16B			Synthetic Minor Limit
	EU-16C	PM <sub>10</sub>	14.3 tpy <sup>1</sup>	1992 Corn Grind Expansion
	EU-16D			Synthetic Minor Limit
		NOx	38 tpy <sup>1</sup>	1992 Corn Grind Expansion
				Synthetic Minor Limit

Standard expressed as a 12-month rolling total

## **Operational Limits & Requirements**

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

#### **Control Device:**

A wet scrubber and four cyclones shall be installed to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control devices at all times.

Authority for Requirement: LCPH ATI 4818/ PTO 5782

#### **Operating Limits:**

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

- A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.
- B. The fresh water flow to the scrubber shall be no less than 45 gpm.

<sup>&</sup>lt;sup>1</sup> Standard is expressed as the average of three runs.

<sup>&</sup>lt;sup>2</sup> An exceedance of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, Linn County may require additional proof to demonstrate compliance (e.g., stack testing).

- C. The recirculation water flow to the scrubber shall be no less than 610 gpm.
- D. The pH of the scrubber liquid shall be no less than 7.0.
- E. The pressure differential across the scrubber shall be maintained between 0.5" to 10" w.c.
- F. The scrubber on this unit shall be maintained according to the manufacturer's specifications and good operating practices.

Authority for Requirement: LCPH ATI 4818/ PTO 5782

#### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall record the weekly average facility grind rate.
- B. The owner or operator shall monitor and record the recirculation water flow rate in the scrubber on a daily basis.
- C. The owner or operator shall monitor and record the fresh water flow rate in the scrubber on a daily basis.
- D. The owner or operator shall monitor and record the pH of the scrubbing liquid on a daily basis.
- E. The owner or operator shall monitor and record the pressure differential across the scrubber on a daily basis.
- F. The owner or operator shall maintain a record of all maintenance completed on the control device.
- G. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.

Authority for Requirement: LCPH ATI 4818/ PTO 5782

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 144 Discharge Style: Vertical, Unobstructed Stack Opening, (inches, diameter): 72 Exhaust Temperature (°F): 125

Exhaust Flow Rate (acfm): 106,022

Authority for Requirement: LCPH ATI 4818/ PTO 5782

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

## **Monitoring Requirements**

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

## **Stack Testing:**

Pollutant – Sulfur Dioxide (SO<sub>2</sub>) 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 6C (40 CFR 60) or approved alternative Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Volatile Organic Compounds (VOC) 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 25A (40 CFR 60) or approved alternative 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)

## **Opacity Monitoring:**

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 >10 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🖾 1 No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes No No

Authority for Requirement: 567 IAC 22.108(3)

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<sup>&</sup>lt;sup>1</sup> Facility maintained operation & maintenance plans are required for PM and PM<sub>10</sub>.

<sup>&</sup>lt;sup>2</sup> Compliance Assurance Monitoring has been waived for SOx and VOC control. PTO 5782 has CAM equivalent monitoring and recordkeeping requirements.

**Process Area: GERM** 

Associated Equipment

Associated Emission Unit ID Numbers: EU-21

Emissions Control Equipment ID Number: CE-021A, CE-021B, CE-021C

Emissions Control Equipment Description: Cyclone, Cyclone, Multivane Scrubber

Emission Unit vented through this Emission Point: EU-21

Emission Unit Description: Germ Cooler

Raw Material/Fuel: Corn Germ Rated Capacity: 32.8 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): 20%

Authority for Requirement: LCPH ATI 4819 / PTO 6149

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.2 lb/hr

Authority for Requirement: LCPH ATI 4819 / PTO 6149

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

LCPH ATI 4819 / PTO 6149

Pollutant: Particulate Matter Emission Limit(s): 0.20 lb/hr

Authority for Requirement: LCPH ATI 4819 / PTO 6149

Pollutant: VOC

Emission Limit(s): 2.16 lb/hr

Authority for Requirement: LCPH ATI 4819/ PTO 6149

### **Operational Limits & Requirements**

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

#### **Control Device:**

Dual cyclones and a wet scrubber shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source

is in operation. All appropriate probes and gauges needed to measure the parameters outlined in [Operating Condition Monitoring and Recordkeeping] shall be installed and maintained in a good operating condition.

Authority for Requirement: LCPH ATI 4819 / PTO 6149

## **Operating Limits:**

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

- A. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.
- B. Water flow to the scrubber unit shall be maintained at a minimum of 104 gallons per minute at all times while the unit is in operation.
- C. The differential pressure measured across the scrubber shall be greater than 0.5 inch of water column and less than 10 inches of water column.
- D. The control equipment shall be maintained according to the manufacturer's specification and/or good operating practices.

Authority for Requirement: LCPH ATI 4819 / PTO 6149

## **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Monitor and record the pressure differential across the scrubber on a daily basis.
- B. Monitor and record the water flow to the scrubber on a daily basis.
- C. Monitor and record "no visible emissions" observations on a weekly basis. An exceedance of "no visible emissions" will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the findings and corrective action taken.
- D. Calculate and record the weekly facility grind rate on a 52-week rolling average basis.
- E. Record all maintenance and repair completed on the control devices.

Authority for Requirement: LCPH ATI 4819 / PTO 6149

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 100 Discharge Style: Vertical, Unobstructed Stack Opening, (inches, diameter): 30 Exhaust Temperature (°F): 105

Exhaust Flow Rate (acfm): 16,298

Authority for Requirement: LCPH ATI 4819 / PTO 6149

The temperature and flow rate 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 flow rate 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**

Stack testing is not required for EP 021.

## **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

**Process Area: PELLET MILL** 

**Table Pellet Mill-1. Associated Equipment.** 

			Raw			
			Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-	EU-1	#4 Pellet Cooler	Gluten	39 tons / hr	CE-001A	Baghouse
388			Feed		CE-001B	Cyclone
SEP-	EU-29	#1 Pellet Cooler	Gluten	26 tons / hr	CE-029 A	Cyclone
388			Feed		CE-029 B	Cyclone
SEP-	EU-36	Pellet Mill Dust	Gluten	130 tons / hr	CE-036	Baghouse
388		Collection	Feed			
SEP-	EU-38	#2 Pellet Cooler	Gluten	26 tons / hr	CE-038A	Cyclones
388			Feed		CE-038B	Cyclones
SEP-	EU-39	#3 Pellet Cooler	Gluten	36 tons / hr	CE-039A	Cyclones
388			Feed		CE-039B	Cyclones

# **Applicable Requirements**

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

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

Pollutant: Opacity

Emission Limit(s): 20%<sup>2</sup>

Authority for Requirement: LCPH ATI 5037 / PTO 6077

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 4.54 lb/hr<sup>1</sup>, 3.28 lb/hr<sup>3</sup>, 14.4 tpy

Authority for Requirement: LCPH ATI 5037 / PTO 6077

Pollutant: Particulate Matter Emission Limit(s): 4.54 lb/hr

Authority for Requirement: LCPH ATI 5037 / PTO 6077

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

Authority for Requirement: 567 IAC 23.4(7) LCO 10.9(1)"g"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 16.35 lb/hr

Authority for Requirement: LCPH ATI 5037 / PTO 6077

<sup>&</sup>lt;sup>1</sup> Emission rate used to demonstrate no exceedance of the National Ambient Air Quality Standards (NAAQS).

### **Operational Limits & Requirements**

PSD significance thresholds.

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

### **Control Equipment**

Two baghouses and seven cyclones shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outline in condition 16 [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5037 / PTO 6077

## **Operating Limits**

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

- A. The control equipment shall be maintained according to the manufacturer's specifications and good operating practices.
- B. Pressure drop across the baghouse, CE-036, shall be maintained between 0.5 to 8 inches of water.
- C. Pressure drop across the baghouse, CE-001A, shall be maintained between 0.2 to 6 inches of water.
- D. The facility-wide grind shall be limited to 450,000 bushels of corn per day based on a 52-week rolling average.

Authority for Requirement: LCPH ATI 5037 / PTO 6077

## **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Pressure drop across the baghouse, CE-036, shall be recorded on a daily basis while the control equipment is in operation.
- B. Pressure drop across the baghouse, CE-001A, shall be recorded on a daily basis while the control equipment is in operation.
- C. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis while the control equipment is in operation. An exceedance of 'no visible

<sup>&</sup>lt;sup>2</sup> An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If opacity continues to be seen after the corrections, Linn County may require additional proof to demonstrate compliance (e.g. stack testing).

<sup>3</sup> PM<sub>10</sub> potential to emit from Coolers #1 (EU-29), #2 (EU-038), #3 (EU-039), and #4 (EU-1) shall be limited to 3.28 pounds per hour and 14.4 tons per year for this project to remain below

emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.

- D. Record the weekly average facility grind rate.
- E. Record all maintenance and repair completed to the control equipment.
- F. Retain copies of emission test results for compliance testing completed on this emission source.

Authority for Requirement: LCPH ATI 5037 / PTO 6077

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 140

Stack Opening, (inches, dia.): 74 Exhaust Flow Rate (scfm): 99,487 Exhaust Temperature (°F): 140

Authority for Requirement: LCPH ATI 5037 / PTO 6077

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

### **Monitoring Requirements**

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

### **Stack Testing:**

The following stack tests shall be performed:

 $Pollutant - PM_{10}$ 

1st Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

## **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

Authority for Requirement: 567 IAC 22.108(3)

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<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring plan has been waived. PTO 6077 has CAM equivalent monitoring required.

## **Alcohol Process Area:**

#### **NSPS:**

Several pieces of equipment associated with this process group are subject to 40 CFR Part 60 Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. (ADM Corn Processing is responsible for demonstrating compliance with 40 CFR 60 Subpart VV as printed in the Federal Register.)

Authority for Requirement: LCO 10.9(2)(a)"40"

567 IAC 23.1(2)"n" 40 CFR Subpart VV

Several pieces of equipment associated with this process group are subject to 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. (ADM Corn Processing is responsible for demonstrating compliance with 40 CFR 60 Subpart Kb as printed in the Federal Register.)

Authority for Requirement: LCO 10.9(2)(a)"56"

567 IAC 23.1(2)"ddd" 40 CFR Subpart Kb

#### **NESHAP:**

Several pieces of equipment associated with this process group are subject to 40 CFR Part 63 Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. (ADM Corn Processing is responsible for demonstrating compliance with 40 CFR 63 Subpart FFFF as printed in the Federal Register.)

Authority for Requirement: LCO 10.9(4) "ffff"

567 IAC 23.1(4) "cf" 40 CFR 63 Subpart FFFF

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JAK

**Process Area: ALCOHOL** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-55 Emissions Control Equipment ID Number: CE-055 Emissions Control Equipment Description: Wet Scrubber

Emission Units vented through this Emission Point: EU-55A, EU-55B, EU-55C, EU-55D

Emission Unit Description: Fermenter Vent / CO<sub>2</sub> Scrubber

Raw Material/Fuel: Carbon Dioxide (CO<sub>2</sub>)

Rated Capacity: 100.4 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: Volatile Organic Compounds (VOC)

Emission Limit(s): 95% control or 20 ppmv, 72.4 lb/hr<sup>1</sup> Authority for Requirement: LCPH ATI 6443 / PTO 6507

<sup>1</sup> All emission limitations (including operating parameter ranges and limits) apply at all times when process equipment is operating, except, in the case of process equipment or pollution control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR Part 63. These startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable, startup and shutdown of pollution control systems will be performed during times when the process equipment is also shut down. Also, ADM shall to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions. *ADM Consent Decree, Cedar Rapids Control Technology Plan Section 7.0, Footnote 1*.

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

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

#### **Control Device:**

A packed bed scrubber shall be installed to control volatile organic compounds emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6443 / PTO 6507

## NSPS and NESHAP Applicability:

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9.2 and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (National Emission Standards for Hazardous Air Pollutants) shall be applicable as specified in LCO 10.9.3 and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (National Emission Standards for Hazardous Air Pollutants for Source Categories) shall be applicable as specified in LCO 10.9.4 and 567 IAC 23.1(4).

- A. This emission unit is not subject to a NSPS as there are no subparts for this source category.
- B. This emission unit is subject to Subpart A (General Provisions, 40 CFR §63.1 40 CFR §63.15) and FFFF (National Emission Standard for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, §63.2430 63.2550) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) and shall apply to this source pursuant to LCO 10.9(4) "ffff" and 567 IAC 23.1 (4) "cf." This unit has initially been determined to be a Group 2 continuous process vent.

Authority for Requirement: LCPH ATI 6443 / PTO 6507

## **Operating Limits:**

- A. This facility is limited to the following production amounts:
  - i. A maximum of 316.5 x 10<sup>6</sup> gallons of 200° alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of 332.3 x 10<sup>6</sup> gallons of completely denatured alcohol per 12-month rolling period.
  - iv. A maximum of 86.5 x 10<sup>6</sup> gallons of completely denatured alcohol per calendar quarter.
- B. The freshwater flow to the top bed of the scrubber shall be maintained at 131 gallons per minute or greater.
- C. The recycled water flow to the bottom bed of the scrubber shall be maintained at 350 gallons per minute or greater.
- D. If the recirculation rate operates below 350 gallons per minute, the fresh water flow to the scrubber shall be maintained at 245 gallons per minute or greater.
- E. The differential pressure measured across the scrubber, CE-055, shall be maintained between 2 and 22 inches of water column during normal operations.
- F. The differential pressure measured across the scrubber, CE-055, is not required to be monitored or maintained in the "normal operations" range when the blender rate (feedstock) drops below 2100 gallons per minute.
- G. The owner or operator shall comply with all applicable requirements set forth in 40 CFR 63 Subpart A (40 CFR §63.1 through 40 CFR §63.15) and 40 CFR 63 Subpart FFFF (40 CFR §63.2430 through 40 CFR §63.2550).
- H. The control equipment on this unit shall be maintained according to the manufacturer's specification and good operating practices.

Authority for Requirement: LCPH ATI 6443 / PTO 6507

# **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. 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 fresh water flow rate to the top bed of the scrubber on a daily basis while the control equipment is in operation.
- B. The owner or operator shall monitor and record the recycled water flow rate to the bottom bed of the scrubber on a daily basis while the control equipment is in operation.
- C. The owner or operator shall monitor and record the differential pressure across the scrubber on a daily basis while the control equipment is in operation and the blender rate is 2100 gallons per minute or above.
- D. The owner or operator shall monitor and record the daily blender (feedstock) rate.
- E. The owner or operator shall calculate and record the amount of 200° alcohol and completely denatured alcohol produced monthly, per calendar quarter and 12-month rolling period.
- F. The owner or operator shall comply with all applicable recordkeeping, notification, and reporting requirements as set forth in 40 CFR Subpart A (40 CFR §63.1 through 40 CFR §63.15) and 40 CFR Subpart FFFF (40 CFR §63.2515, 40 CFR §63.2520, 40 CFR §63.2525).

Authority for Requirement: LCPH ATI 6443 / PTO 6507

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height (ft, from ground): 123 Discharge Style: Vertical, unobstructed Stack Opening (inches, diameter): 30 Exhaust Temperature (°F): 85

Exhaust Flow rate (acfm): 35,838

Authority for Requirement: LCPH ATI 6443 / PTO 6507

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

# **Monitoring Requirements**

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

# **Stack Testing:**

Pollutant – Volatile Organic Compounds (VOC)<sup>1</sup>
1st Stack Test to be Completed within the <u>first year</u> of permit term
2<sup>nd</sup> Stack Test to be Completed between <u>2.5 years to 3.5 years</u> of permit term
Test Method – Method 25A (40 CFR 60) or approved alternative
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)

Opacity monitoring is not required at this time.

Agency Approved Operation & Maintenance Plan Required?	Yes M No
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ☐ No ☐2

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix A, Agency Approved O&M Plans, for the complete agency approved operation and maintenance plan.

<sup>&</sup>lt;sup>1</sup> Testing shall be conducted during the months of June, July, or August. Semi-annual testing conducted to satisfy the compliance requirements of LCPH ATI 6443 / PTO 6507 can also satisfy the testing requirements of this operating permit so long as those tests are completed during the months of June, July, or August.

<sup>&</sup>lt;sup>1</sup> Agency-approved operation & maintenance plan is required for VOC.

<sup>&</sup>lt;sup>2</sup> SEP-055 is subject to NESHAP Subpart FFFF, and is therefore exempt from CAM.

Emission Point ID Number: SEP-057, SEP-058, SEP-059, SEP-060

**Process Area: ALCOHOL** 

Table Alcohol-1. Associated Equipment.

		1 1	Raw	Rated		CE
EP	EU	EU Description	Material/Fuel	Capacity	CE ID	Description
SEP-	EU-57	Yeast Propagator	Yeast Culture	14,381	CE-057	Wet Scrubber
057		Tank #1		gallons		
SEP-	EU-58	Yeast Propagator	Yeast Culture	14,381	CE-058	Wet Scrubber
058		Tank #2		gallons		
SEP-	EU-59	Yeast Propagator	Yeast Culture	14,381	CE-059	Wet Scrubber
059		Tank #3		gallons		
SEP-	EU-60	Yeast Propagator	Yeast Culture	14,381	CE-060	Wet Scrubber
060		Tank #4		gallons		

# **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 Alcohol-2. Emission Limits.** 

EP	EU	VOC	Permit #
SEP-057	EU-57	0.96 lb/hr <sup>1</sup> , 4.2 tpy <sup>1</sup>	LCPH ATI 4676 / PTO 5481
SEP-058	EU-58	0.96 lb/hr <sup>1</sup> , 4.2 tpy <sup>1</sup>	LCPH ATI 4677 / PTO 5482
SEP-059	EU-59	0.96 lb/hr <sup>1</sup> , 4.2 tpy <sup>1</sup>	LCPH ATI 4678 / PTO 5483
SEP-060	EU-60	0.96 lb/hr <sup>1</sup> , 4.2 tpy <sup>1</sup>	LCPH ATI 4679 / PTO 5484

<sup>&</sup>lt;sup>1</sup> This emission limit is for the combined emissions from EP 057 Yeast Propagator Tank 1, EP 058 Yeast Propagator Tank 2, EP 059 Yeast Propagator Tank 3 and EP 060 Yeast Propagator Tank 4.

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

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

#### **Control Device:**

A scrubber shall be installed to control VOC emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4676 / PTO 5481

LCPH ATI 4677 / PTO 5482 LCPH ATI 4678 / PTO 5483 LCPH ATI 4679 / PTO 5484

#### **Operating Limits:**

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

- A. This facility is limited to the following production amounts:
  - i. A maximum of 316.5 x 10<sup>6</sup> gallons of 200° alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of  $332.3 \times 10^6$  gallons of completely denatured alcohol per 12-month rolling period.
  - iv. A maximum of  $86.5 \times 10^6$  gallons of completely denatured alcohol per calendar quarter.
- B. The water flow rate in the scrubber shall be no less than 5% below the minimum water flow rate recorded during a successful compliance test for VOC emissions.
- C. The scrubber on this unit shall be maintained according to the manufacturer's specifications and/or good operating practices.

Authority for Requirement: LCPH ATI 4676 / PTO 5481

LCPH ATI 4677 / PTO 5482 LCPH ATI 4678 / PTO 5483 LCPH ATI 4679 / PTO 5484

# **Operating Condition Monitoring & Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Monitor and record the water flow rate in the scrubber on a daily basis.
- B. Record the amount of 200° alcohol and completely denatured alcohol produced. Calculate and record monthly, calendar quarter and 12-month rolling totals.

Authority for Requirement: LCPH ATI 4676 / PTO 5481

LCPH ATI 4677 / PTO 5482 LCPH ATI 4678 / PTO 5483 LCPH ATI 4679 / PTO 5484

#### **Emission Point Characteristics**

The emission points shall conform to the specifications listed below.

#### Table Alcohol-3.

			Stack Characteristics				
					Stack		Exhaust
		LCPH	Stack Height		Opening	Exhaust	Flow
		ATI / PTO	(feet, above	Discharge	(inches,	Temp.	rate
EP	EU	Numbers	ground)	Style	dia.)	(°F)	(scfm)
SEP-	EU-	4676 / 5481	49	Vertical,	6	67	54
057	57			unobstructed			
SEP-	EU-	4677 / 5482	49	Vertical,	6	67	54
058	58			unobstructed			
SEP-	EU-	4678 / 5483	49	Vertical,	6	67	54
059	59			unobstructed			
SEP-	EU-	4679 / 5484	49	Vertical,	6	67	54
060	60			unobstructed			

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

<u> Monitoring</u>	<u>Requirements</u>
C40 01- 4004in 0	

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

 Agency Approved Operation & Maintenance Plan Required?
 Yes □ No ⋈

 Facility Maintained Operation & Maintenance Plan Required?
 Yes □ No ⋈

 Compliance Assurance Monitoring (CAM) Plan Required?
 Yes □ No ⋈

**Emission Point ID Number: SEP-069** 

**Process Area: ALCOHOL** 

Associated Equipment

Associated Emission Unit ID Numbers: EU-69 Emissions Control Equipment ID Number: CE-069

Emissions Control Equipment Description: Packed Bed Scrubber

Emission Unit vented through this Emission Point: EU-69 Emission Unit Description: 190 Product Scrubbing System

Raw Material/Fuel: Ethanol, 190 Proof

Rated Capacity: 36,130 gal/hr

# **Applicable Requirements**

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

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

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 0.3 lb/hr

Authority for Requirement: LCPH ATI 6426 / PTO 6460

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

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

LCO 10.12(2)

Authority for Requirement: LCPH ATI 6426 / PTO 6460

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 2.0 lb/hr

Authority for Requirement: LCPH ATI 6426 / PTO 6460

# **Operational Limits & Requirements**

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

#### **Control Device:**

A packed bed scrubber shall be installed to control VOC and SO<sub>2</sub> emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6426 / PTO 6460

#### **Operating Limits:**

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

- A. This facility is limited to the following production amounts:
  - i. A maximum of 316.5 x 10<sup>6</sup> gallons of 200° alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of 332.3 x 10<sup>6</sup> gallons of completely denatured alcohol per 12-month rolling period.
  - iv. A maximum of  $86.5 \times 10^6$  gallons of completely denatured alcohol per calendar quarter.
- B. The fresh water flow rate in the scrubber shall be maintained at a minimum of 19.2 gallons per minute at all times while the unit is in operation.
- C. The differential pressure measured across the packed bed scrubber, CE-069, shall be maintained between 0.2 inches of water and 10 inches of water column with the exception of unit startup.
- D. The control equipment shall be maintained according to the manufacturer's specifications and good operating practices.
- E. The owner or operator shall comply with all applicable requirements 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).
- F. The owner or operator shall maintain the control equipment according to manufacturer's specification and maintenance schedule.

Authority for Requirement: LCPH ATI 6426 / PTO 6460

# **Operating Condition Monitoring & Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Monitor and record the scrubber water flow rate on a daily basis while the control equipment and emission unit are in operation.
- B. Monitor and record the differential pressure on the wet scrubber on a weekly basis while the control equipment and emission unit are in operation. If the pressure drop deviates from the 0.2 to 10 INWC range then an inspection of the system shall be completed and any observations, unusual process conditions, and corrective actions shall be recorded.
- C. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control device.
- D. Calculate and record monthly the amount of 200° alcohol produced per calendar quarter and 12-month rolling period.
- E. Calculate and record monthly the amount of completely denatured alcohol produced per calendar quarter and 12-month rolling period.

F. The owner or operator shall comply with all applicable recordkeeping, notification, and reporting requirements as set forth in NESHAP Subparts A (40 CFR §63.1 through 40 CFR §63.15) and FFFF (40 CFR §63.2515, 40 CFR §63.2520, and 40 CFR §63.2525).

Authority for Requirement: LCPH ATI 6426 / PTO 6460

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 115 Discharge Style: Vertical, obstructed Stack Opening, (inches, diameter): 8 Exhaust Temperature (°F): 70 Exhaust Flow Rate (scfm): 336

Authority for Requirement: LCPH ATI 4682 / PTO 6460

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

Source testing is not required for this source at this time.

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

**Emission Point ID Number: SEP-070** 

**Process Area: ALCOHOL** 

Associated Equipment

Associated Emission Unit ID Numbers: EU-70 Emissions Control Equipment ID Number: CE-070

Emissions Control Equipment Description: 200 Product Scrubbing System

Emission Unit vented through this Emission Point: EU-70 Emission Unit Description: 200 Product Scrubbing System

Raw Material/Fuel: Ethanol, 200 Proof Rated Capacity: 36,130.14 gal/hr

# **Applicable Requirements**

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

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

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 1.05 lb/hr

Authority for Requirement: LCPH ATI 6057 / PTO 6333

# **Operational Limits & Requirements**

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

#### **Control Device:**

A wet scrubber shall be installed to control VOC emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6057 / PTO 6333

#### **Operating Limits:**

- A. This facility is limited to the following production amounts:
  - i. A maximum of 316.5 x 10<sup>6</sup> gallons of 200° alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of 332.3 x 10<sup>6</sup> gallons of completely denatured alcohol per 12-month rolling period.
  - iv. A maximum of 86.5 x 10<sup>6</sup> gallons of completely denatured alcohol per calendar quarter.
- B. The scrubber shall only use fresh water and have a minimum flow rate of 19 gallons per minute.

- C. The scrubber on this unit shall be maintained according to the manufacturer's specifications and/or good operating practices.
- D. The differential pressure across the scrubber shall be maintained between 1 and 12 inches of water column.

Authority for Requirement: LCPH ATI 6057 / PTO 6333

# **Operating Condition Monitoring & Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Monitor and record the fresh water flow rate in the scrubber on a weekly basis.
- B. Monitor and record the pressure drop across the scrubber on a weekly basis.
- C. Calculate and record monthly the amount of 200° alcohol produced per calendar quarter and 12-month rolling period.
- D. Calculate and record monthly the amount of completely denatured alcohol produced per calendar quarter and 12-month rolling period.

Authority for Requirement: LCPH ATI 6057 / PTO 6333

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 96

Discharge Style: Vertical, with spark arrestor

Stack Opening, (inches, diameter): 8

Exhaust Temperature (°F): 60 Exhaust Flow Rate (acfm): 392

Authority for Requirement: LCPH ATI 6057 / PTO 6333

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

<u>Monitoring Requirements</u>	
The owner/operator of this equipment shall comply with the monitoring rebelow.	equirements listed
Stack testing is not required at this time.	
Opacity monitoring is not required at this time.	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂

Compliance Assurance Monitoring (CAM) Plan Required?

Authority for Requirement: 567 IAC 22.108(3)

Yes 🗌 No 🖂

Emission Point ID Number: SEP-071, SEP-072, SEP-075, SEP-077,

SEP-080, SEP-081, SEP-082

**Process Area: ALCOHOL** 

Table Alcohol-4. Associated Equipment.

		Associated Equipi	Raw Material	Rated		
ED	Tett	EU Dagawin tian			CE ID	CE Description
EP	EU	EU Description	/ Fuel	Capacity	CE ID	CE Description
SEP-	EU-71	#1 Alcohol Storage	CDA	500,000	CE-071	Internal
071		Tank		gallons		Floating Roof
						Seal
SEP-	EU-72	#2 Alcohol Storage	CDA	500,000	CE-072	Internal
072		Tank		gallons		Floating Roof
						Seal
SEP-	EU-75	#2 Hi-Wine	Ethanol, 200	200,000	CE-075	Internal
075		Transfer Tank	Proof	gallons		Floating Roof
						Seal
SEP-	EU-77	Corrosion Inhibitor	Corrosion	8,761	None	None
077		Tank	Inhibitor	gallons		
SEP-	EU-80	#3 Hi-Wine Process	Ethanol, 200	200,000	CE-080	Internal
080		Tank	Proof	gallons		Floating Roof
						Seal
SEP-	EU-81	Fusel Oil Tank	Fusel Oil	16,920	None	None
081				gallons		
SEP-	EU-82	190 Proof Storage	Ethanol, 190	154,224	None	None
082		Tank	Proof	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.

Table Alcohol-5. Emission Limits.

EP	EU	VOC	LCPH Permit #
SEP-071	EU-71	None	ATI 4684 / PTO 5295
SEP-072	EU-72	None	ATI 4685 / PTO 5296
SEP-075	EU-75	None	ATI 4688 / PTO 5299
SEP-077	EU-77	None	ATI 4690 / PTO 5300
SEP-080	EU-80	None	ATI 4691 / PTO 5301
SEP-081	EU-81	None	ATI 4692 / PTO 5302
SEP-082	EU-82	None	ATI 4693 / PTO 5303

# **Operational Limits & Requirements**

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

#### **Control Device:**

An internal floating roof shall be installed to control VOC emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4684 / PTO 5295

LCPH ATI 4685 / PTO 5296 LCPH ATI 4688 / PTO 5299 LCPH ATI 4691 / PTO 5301

# **NSPS and NESHAP Applicability:**

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9.2 and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (National Emission Standards for Hazardous Air Pollutants) shall be applicable as specified in LCO 10.9.3 and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (National Emission Standards for Hazarouds Air Pollutants for source categories) shall be applicable as specified in LCO 10.9.4 and 567 IAC 23.1(4).

- A. The New Source Performance Standards (NSPS) Subpart A, General Provisions, and Subpart VV, Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemicals Manufacturing, shall apply to this source pursuant to LCO 10.9(2)(a) "40" and 567 IAC 23.1(2)"n."
- B. This source is not subject to a NESHAP at this time.

Authority for Requirement: LCPH ATI 4684 / PTO 5295

LCPH ATI 4685 / PTO 5296 LCPH ATI 4688 / PTO 5299 LCPH ATI 4690 / PTO 5300 LCPH ATI 4691 / PTO 5301 LCPH ATI 4692 / PTO 5302 LCPH ATI 4693 / PTO 5303

LCO 10.9(2)(a)"40" 567 IAC 23.1(2)"n" 40 CFR 60 Subpart VV

# **Operating Limits:**

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

- A. This facility shall comply with the requirements of NSPS Subpart VV by meeting the standards of 40 CFR §60.482-1 through 40 CFR §60.485.
- B. This facility is limited to the following production amounts:
  - i. A maximum of 316.5 x 10<sup>6</sup> gallons of 200° alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of 332.3 x 10<sup>6</sup> gallons of completely denatured alcohol per 12-month rolling period.

iv. A maximum of  $86.5 \times 10^6$  gallons of completely denatured alcohol per calendar quarter.

Authority for Requirement: LCPH ATI 4684 / PTO 5295

LCPH ATI 4685 / PTO 5296 LCPH ATI 4688 / PTO 5299 LCPH ATI 4690 / PTO 5300 LCPH ATI 4691 / PTO 5301 LCPH ATI 4692 / PTO 5302 LCPH ATI 4693 / PTO 5303

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Recordkeeping for NSPS Subpart VV shall be done according to 40 CFR §60.486.
- B. Reporting for NSPS Subpart VV shall be done according to 40 CFR §60.487.
- C. Record the amount of 200° alcohol and completely denatured alcohol produced. Calculate and record monthly, calendar quarter and 12-month rolling totals.

Authority for Requirement: LCPH ATI 4684 / PTO 5295

LCPH ATI 4685 / PTO 5296 LCPH ATI 4688 / PTO 5299 LCPH ATI 4690 / PTO 5300 LCPH ATI 4691 / PTO 5301 LCPH ATI 4692 / PTO 5302 LCPH ATI 4693 / PTO 5303

LCO 10.9(2)(a)"40" 567 IAC 23.1(2)"n" 40 CFR 60 Subpart VV

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Alcohol-6.

			Stack Ch	Stack Characteristics			
EP	EU	LCPH ATI / PTO Numbers	Stack Height (ft, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flow Rate (scfm)
SEP-	EU-	4684 / 5295	42	Horizontal	4 vents at	80	Passive
071	71				24" x 10"		displacement
SEP-	EU-	4685 / 5296	42	Horizontal	4 vents at	80	Passive
072	72				24" x 10"		displacement
SEP-	EU-	4688 / 5299	32	Horizontal	3 vents at	89	Passive
075	75				24" x 10"		displacement

			Stack Ch	Stack Characteristics			
EP	EU	LCPH ATI / PTO Numbers	Stack Height (ft, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flow Rate (scfm)
SEP-	EU-	4690 / 4300	17	Vertical w/	3	Ambient	Passive
077	77			obstructing			displacement
				rain cap			
SEP-	EU-	4691 / 5301	17	Vertical w/	3 vents at	70	Passive
080	80			obstructing	24" x 10"		displacement
				rain cap			
SEP-	EU-	4692 / 5302	17	Vertical w/	4	Ambient	Passive
081	81			obstructing			displacement
				rain cap			
SEP-	EU-	4693 / 5303	44	Vertical w/	4	89	Passive
082	82			obstructing			displacement
				rain cap			

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

# **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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

**Emission Point ID Number: SEP-073, SEP-074** 

**Process Area: ALCOHOL** 

Table Alcohol-7. Associated Equipment.

		general Equipment	Raw Material /	Rated		
EP	EU	<b>EU Description</b>	Fuel	Capacity	CE ID	<b>CE Description</b>
SEP-073	EU-73	#3 Alcohol	CDA	1,000,000	CE-073	Internal
		Storage Tank		gallons		Floating Roof
SEP-074	EU-74	Denaturant	Denaturant	200,000	CE-074	Internal
		Storage Tank		gallons		Floating Roof

# **Applicable Requirements**

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

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

#### Table Alcohol-8. Emission Limits.

EP	EU	VOC	LCPH Permit #
SEP-073	EU-73	None	ATI 4686 / PTO 5297
SEP-074	EU-74	0.27 lb/hr, 1.19 tpy	ATI 4687 / PTO 5298

# **Operational Limits & Requirements**

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

#### **Control Device:**

JAK

An internal floating roof shall be installed to control VOC emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

LCPH ATI 4687 / PTO 5298

Authority for Requirement: LCPH ATI 4686 / PTO 5297

# NSPS and NESHAP Applicability:

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9.2 and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (national emission standards for hazardous air pollutants) shall be applicable as specified in LCO 10.9.3 and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (national emission standards for hazardous air pollutants for source categories) shall be applicable as specified in LCO 10.9.4 and 567 IAC 23.1(4).

A. The New Source Performance Standards (NSPS) Subpart VV, Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemicals Manufacturing, shall apply to this source pursuant to LCO 10.9(2)(a) "40" and 567 IAC 23.1(2)"n."

- B. The New Source Performance Standards (NSPS) 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 shall apply to this source pursuant to LCO 10.9(2)(a) "56" and 567 IAC 23.1(2) "ddd."
- C. This source is not subject to a NESHAP at this time.

Authority for Requirement: LCPH ATI 4686 / PTO 5297

LCPH ATI 4687 / PTO 5298

LCO 10.9(2)(a)"40" LCO 10.9(2)(a)"56" 567 IAC 23.1(2)"n" 567 IAC 23.1(2)"ddd" 40 CFR 60 Subpart VV 40 CFR 60 Subpart Kb

# **Operating Limits:**

- A. This facility shall comply with the requirements of NSPS Subpart VV by meeting the standards of 40 CFR §60.482-1 through 40 CFR §60.485.
- B. This facility shall comply with the requirements of NSPS Subpart Kb by meeting the standards of 40 CFR §60.112b and the testing and procedures of 40 CFR §60.113b.
- C. This facility is limited to the following production amounts:
  - i. A maximum of  $316.5 \times 10^6$  gallons of  $200^\circ$  alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of 332.3 x  $10^6$  gallons of completely denatured alcohol per 12-month rolling period.
  - iv. A maximum of  $86.5 \times 10^6$  gallons of completely denatured alcohol per calendar quarter.

Authority for Requirement: LCPH ATI 4686 / PTO 5297

LCPH ATI 4687 / PTO 5298

LCO 10.9(2)(a)"40" LCO 10.9(2)(a)"56" 567 IAC 23.1(2)"n" 567 IAC 23.1(2)"ddd" 40 CFR 60 Subpart VV 40 CFR 60 Subpart Kb

#### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Recordkeeping for NSPS Subpart VV shall be done according to 40 CFR §60.486.
- B. Reporting for NSPS Subpart VV shall be done according to 40 CFR §60.487.
- C. Recordkeeping for NSPS Subpart Kb shall be done according to 40 CFR §60.115b and 40 CFR §60.116b.

- D. Reporting for NSPS Subpart Kb shall be done according to 40 CFR §60.115b.
- E. Record the amount of 200° alcohol and completely denatured alcohol produced. Calculate and record monthly, calendar quarter and 12-month rolling totals.

Authority for Requirement: LCPH ATI 4686 / PTO 5297

LCPH ATI 4687 / PTO 5298

LCO 10.9(2)(a)"40" LCO 10.9(2)(a)"56" 567 IAC 23.1(2)"n" 567 IAC 23.1(2)"ddd" 40 CFR 60 Subpart Kb 40 CFR 60 Subpart VV

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Alcohol-9.

			Stack Char	Stack Characteristics			
			Stack				
		LCPH	Height		Stack	Exhaust	Exhaust
		ATI /	(ft, above	Discharge	Opening	Temp.	Flow Rate
EP	EU	PTO#	ground)	Style	(inches, dia.)	(°F)	(scfm)
SEP-073	EU-73	4686 /	48	Horizontal	6 vents at	80	Passive
		5297			24" x 10"		displacement
SEP-074	EU-74	4687 /	32	Horizontal	4 vents at	Ambient	Passive
		5298			24" x 10"		displacement

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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

**Emission Point ID Number: SEP-076 Process Area: ALCOHOL LOADOUT** 

Associated Equipment

Associated Emission Unit ID Numbers: EU-76 Emissions Control Equipment ID Number: CE-076 Emissions Control Equipment Description: Flare

Emission Unit vented through this Emission Point: EU-76A

Emission Unit Description: Alcohol Loadout Raw Material/Fuel: Completely Denatured Alcohol

Rated Capacity: 270,000 gal/hr

Emission Unit vented through this Emission Point: EU-76B

Emission Unit Description: Alcohol Loadout Flare

Raw Material/Fuel: Natural Gas Rated Capacity: 0.00276 MMscf/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<sup>2</sup> Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4689 / PTO 5017

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

Authority for Requirement: DNR PSD Permit 04-A-314P

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

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P

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

LCO 10.9(1)"a"

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

Emission Limit(s): 0.02 lb/hr, 0.09 tpy

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P

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

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P 567 IAC 23.3(3)"e" LCO 10.12(2)

Pollutant: Nitrogen Oxides (NOx)

Emission Limit(s): 0.15 lb/MMBtu, 4.05 lb/hr, 3.94 tpy Authority for Requirement: LCPH ATI 4689 / PTO 5017 DNR PSD Permit 04-A-314P

Pollutant: Volatile Organic Compounds (VOC)<sup>1</sup>
Emission Limit(s): 95% reduction, 4.82 lb/hr, 12.2 tpy
Authority for Requirement: LCPH ATI 4689 / PTO 5017
DNR PSD Permit 04-A-314P

<sup>1</sup> All emission limitations (including operating parameter ranges and limits) apply at all times when the process equipment is operating, except, in the case of process equipment or pollution control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR Part 63. These startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable, startup and shutdown of pollution control systems will be performed during times when the process equipment is also shut down. Also, ADM shall to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions. *ADM Consent Decree, Cedar Rapids Control Technology Plan Section 7.0, Footnote 1.* Negotiated under United States v. ADM (C.D. IL, No. 03-CF-2066)

<sup>2</sup> An exceedance of the indicator opacity of **no visible emissions** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR or Linn County may require additional proof to demonstrate compliance (e.g., stack testing).

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

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

#### **Control Device:**

A flare shall be used to control VOC emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4689 / PTO 5017

#### **NSPS and NESHAP Applicability:**

This unit is subject to NSPS Subpart A, General Provisions, and Subpart VV, Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemicals Manufacturing.

This unit is not subject to NESHAP requirements at this time.

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P

LCO 10.9(2)(a) "40" 567 IAC 23.1(2) "n" 40 CFR 60 Subpart VV

# **Operating Limits:**

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

- A. This facility shall comply with the requirements of NSPS Subpart VV by meeting the standards of 40 CFR §60.482-1 through 40 CFR §60.485.
- B. This facility is limited to the following production amounts:
  - i. A maximum of 316.5 x 10<sup>6</sup> gallons of 200° alcohol per 12-month rolling period.
  - ii. A maximum of 82.4 x 10<sup>6</sup> gallons of 200° alcohol per calendar quarter.
  - iii. A maximum of 332.3 x 10<sup>6</sup> gallons of completely denatured alcohol per 12-month rolling period.
  - iv. A maximum of  $86.5 \times 10^6$  gallons of completely denatured alcohol per calendar quarter.
- C. This flare shall be designed and operated to achieve a minimum of 95% reduction of VOC emissions from the rail and truck loadout operations.
- D. This flare shall use only natural gas or propane as the auxiliary fuel.

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P

LCO 10.9(2)(a) "40" 567 IAC 23.1(2) "n" 40 CFR 60 Subpart VV

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Recordkeeping for NSPS Subpart VV shall be done according to 40 CFR §60.486.
- B. Reporting for NSPS Subpart VV shall be done according to 40 CFR §60.487.
- C. The loadout flare shall be monitored continuously for the presence of the pilot flame. Loadout operations shall be discontinued any time the pilot flame is out.
- D. Record the amount of 200° alcohol and completely denatured alcohol produced. Calculate and record monthly, calendar quarter and 12-month rolling totals.
- E. Record the amount of natural gas and propane used in this flare. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P

LCO 10.9(2)(a) "40"

# 567 IAC 23.1(2) "n" 40 CFR 60 Subpart VV

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 72 Exhaust Temperature (°F): 1400 Exhaust Flow Rate (acfm): 61,000

Authority for Requirement: LCPH ATI 4689 / PTO 5017

DNR PSD Permit 04-A-314P

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

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.

Emission Point ID Number: SEP-250, SEP-251, SEP-252

**Process Area: ALCOHOL** 

Table Alcohol-10. Associated Equipment.

			Raw		
			Material /	Rated	
EP	EU	EU Description	Fuel	Capacity	<b>CE Description</b>
SEP-250	EU-250	Alcohol Collection	Soil Vapor	212 acfm	None
		Blower #1		@ 100°F	
SEP-251	EU-251	Alcohol Collection	Soil Vapor	212 acfm	None
		Blower #2	_	@ 100°F	
SEP-252	EU-252	Alcohol Collection	Soil Vapor	212 acfm	None
		Blower #3	_	@100°F	

# **Applicable Requirements**

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

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

#### **Table Alcohol-11. Emission Limits.**

EP	EU	VOC	LCPH Permit #
SEP-250	EU-250	1.27 lb/hr	ATI 6505 / PTO 6334
SEP-251	EU-251	1.27 lb/hr	ATI 6506 / PTO 6335
SEP-252	EU-252	1.27 lb/hr	ATI 6507 / PTO 6336

# **Operational Limits & Requirements**

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

There are no operating limits or recordkeeping requirements for this source.

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Alcohol-12.

			Stack Chara	Stack Characteristics				
		LCPH	Stack		Stack		Exhaust	
		ATI /	Height (ft,		Opening	Exhaust	Flow	
		PTO	above	Discharge	(inches,	Temp.	Rate	
EP	EU	Numbers	ground)	Style	dia.)	(°F)	(acfm)	
SEP-250	EU-250	6505/	13	Vertical,	2	100	212	
SE1 -230	EO-230	6334	13	obstructed	2	100	212	
SEP-251	EU-251	6506/	13	Vertical,	2	100	212	
SEF-231	EU-231	6335	13	obstructed	2	100	212	
CED 252	EU-252	6507/	12	Vertical,	2	100	212	
SEP-252	EU-232	6336	13	obstructed	2	100	212	

The temperature and flow rate 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 flow rate 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: 567 IAC 22.108(3)

Monitoring Requirements	
The owner/operator of this equipment shall comply with the monitoring	g requirements listed
below.	
Stack testing is not required at this time.	
Opacity monitoring is not required at this time.	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

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**Emission Point ID Number: SEP-002** 

**Process Area: STARCH** 

Table Starch-1. Associated Equipment.

			Raw Material	Rated	CE ID	CE
EP	EU	EU Description	/ Fuel	Capacity		Description
SEP-	EU-	Starch Drying –	Starch Slurry	50,000	CE-002A	Multivane
002	002A	Spray Dryer		lb/hr		Scrubber
					CE-002B	Multivane
						Scrubber
SEP-	EU-	Starch Drying –	Natural Gas	0.05	CE-002A	Multivane
002	002B	Natural Gas		MMCF/hr		Scrubber
					CE-002B	Multivane
						Scrubber

# **Applicable 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): 10%

Authority for Requirement: LCPH ATI 3446 / PTO 3497

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.0 lb/hr, 8.9 tpy

Authority for Requirement: LCPH ATI 3446 / PTO 3497

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1) "g"

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

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

LCO 10.12(2)

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

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

#### **Control Device:**

Two wet scrubbers operating in parallel shall be used to control particulate emissions. The control devices shall be operated at all times when any equipment controlled by the control device is operating. The control device shall be maintained on this source in a good operating condition at all times.

All appropriate probes and gauges needed to measure the parameters outlined in "Compliance Testing and Monitoring" shall be installed and maintained in a good operating condition.

Authority for Requirement: LCPH ATI 3446 / PTO 3497

# **Operating Limits:**

A. This unit is not conditioned to anything less than the maximum operating capacity of the device.

Dryer Design Rate: 50,000 lb/hr corn starch

Dryer Design Rate: 50 MMBtu/hr

Maximum Exhaust Airflow Rate: 125,000 dscfm

- B. The water flow rate to the scrubbers shall be maintained at a minimum of 165 gallons per minute.
- C. The dryer shall be limited to the production of common starch only and shall not be used for the production of modified starch.
- D. The dryer shall burn only natural gas.

Authority for Requirement: LCPH ATI 3446 / PTO 3497

# **Compliance Testing and Monitoring Requirements:**

The following information shall be monitored:

- A. Monthly process rate for dryer
- B. Monthly natural gas consumption
- C. Daily pressure drop
- D. Daily scrubber water flow rates
- E. All monitors shall be easily accessible to air pollution personnel.

Authority for Requirement: LCPH ATI 3446 / PTO 3497

#### **Recordkeeping Requirements:**

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Monthly process rate for dryer
- B. Monthly natural gas consumption
- C. Daily pressure drop readings
- D. Daily scrubber water flow rate readings
- E. Any changes in operation that would affect emissions, including changes in fan speed
- F. Records of all maintenance and repair completed on the control device

Copies of test results shall be retained until a new approved representative test is conducted or for five years, whichever is longer.

These records shall be available on-site at all times for viewing by air pollution control personnel.

Authority for Requirement: LCPH ATI 3446 / PTO 3497

# **Reporting:**

Submit quarterly emissions report summarizing the following items by the 15<sup>th</sup> of each month for the previous quarter.

- A. Monthly average drying rate
- B. Monthly natural gas consumption

Authority for Requirement: LCPH ATI 3446 / PTO 3497

# **Monitoring Requirements**

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

#### **Opacity Monitoring:**

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 >10 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

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.

**Emission Point ID Number: SEP-003, SEP-004** 

**Process Area: STARCH** 

Table Starch-2. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-003	EU-3	Starch Loadout #1	Dry	180,000 lb/hr	CE-003	Baghouse
			Starch			
SEP-004	EU-4	Starch Loadout #2	Dry	180,000 lb/hr	CE-004	Baghouse
			Starch			

# **Applicable Requirements**

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

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

#### Table Starch-3. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-003	EU-3	Opacity	20%	ATI 3557 / PTO 3498
SEP-004	EU-4			ATI 3558 / PTO 3499
				LCO 10.7
		$PM_{10}$	0.10 lb/hr, 0.44 tpy	ATI 3557 / PTO 3498
				ATI 3558 / PTO 3499
		PM	0.1 gr/dscf	567 IAC 23.4(7)
				LCO 10.9(1)"g"

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

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control device shall be operated at all times when any equipment controlled by the control device is operating. The control device shall be maintained on this source in good operating condition at all times.

All appropriate probes and gauges needed to measure the parameters for compliance testing shall be installed and maintained in a good operating condition.

Authority for Requirement: LCPH ATI 3557 / PTO 3498

LCPH ATI 3558 / PTO 3499

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#### **Operating Limits:**

A. This unit is not conditioned to anything less than the maximum operating capacity of the device.

B. Loadout rate: 180,000 lb/hr

C. Maximum exhaust airflow rate: 1579 scfm (1640 acfm)

Note: This source exhausts into an enclosed structure eliminating any potential uncontrolled release to the atmosphere.

Authority for Requirement: LCPH ATI 3557 / PTO 3498

LCPH ATI 3558 / PTO 3499

# **Recordkeeping Requirements:**

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Any changes in operation that would affect emissions, including changes in fan speed.
- B. Records of all maintenance and repair completed on the control device.
- C. Copies of test results shall be retained until a new approved representative test is conducted or for five years, whichever is longer.
- D. These records shall be available on-site at all times for viewing by air pollution control personnel.

Authority for Requirement: LCPH ATI 3557 / PTO 3498

LCPH ATI 3558 / PTO 3499

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from 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.

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

**Emission Point ID Number: SEP-007** 

**Process Area: STARCH** 

Associated Equipment

Associated Emission Unit ID Numbers: EU-7 Emissions Control Equipment ID Number: CE-007 Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-7 Emission Unit Description: Starch Transfer and Loadout

Raw Material/Fuel: Dry Starch Rated Capacity: 50,000 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): 20%

Authority for Requirement: LCPH ATI 3559 / PTO 3500

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.27 lb/hr, 1.18 tpy

Authority for Requirement: LCPH ATI 3559 / PTO 3500

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

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

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control device shall be operated at all times when any equipment controlled by the control device is operating. The control device shall be maintained on this source in a good operating condition at all times.

All appropriate probes and gauges needed to measure the parameters for compliance testing shall be installed and maintained in a good operating condition.

Authority for Requirement: LCPH ATI 3559 / PTO 3500

#### **Operating Limits:**

A. This unit is not conditioned to anything less than the maximum capacity of the device.

B. Loadout rate: 50,000 lb/hr

C. Maximum exhaust airflow rate: 2000 scfm

Authority for Requirement: LCPH ATI 3559 / PTO 3500

#### **Compliance Testing and Monitoring Requirements:**

The following information shall be monitored:

A. Daily pressure drop readings when operating

B. All monitors shall be easily accessible to air pollution personnel.

Authority for Requirement: LCPH ATI 3559 / PTO 3500

# **Recordkeeping Requirements:**

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.-

- A. Daily pressure drop readings
- B. Any changes in operation that would affect emissions, including changes in fan speed
- C. Records of all maintenance and repair completed on the control device

Copies of test results shall be retained until a new approved representative test is conducted or for five years, whichever is longer.

These records shall be available on-site at all times for viewing by air pollution control personnel.

Authority for Requirement: LCPH ATI 3559 / PTO 3500

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

# **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to

retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No ⋈

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □ No ⋈

Emission Point ID Number: SEP-120, SEP-123, SEP-126, SEP-127, SEP-128,

**SEP-130** 

**Process Area: MALTODEXTRIN** 

Table Maltodextrin-1. Associated Equipment.

		•	Raw Material/	Rated		CE
EP	EU	<b>EU Description</b>	Fuel	Capacity	CE ID	Description
SEP-120	EU-120	Maltodextrin	Maltodextrin	6 ton/hr	CE-120	Baghouse
		Storage Bin #6				
SEP-123	EU-123	Maltodextrin	Maltodextrin	6 ton/hr	CE-123	Baghouse
		Storage Bin #5				
SEP-126	EU-126	Maltodextrin	Maltodextrin	6 ton/hr	CE-126	Baghouse
		Storage Bin #4				
SEP-127	EU-127	Maltodextrin	Maltodextrin	6 ton/hr	CE-127	Baghouse
		Storage Bin #3				
SEP-128	EU-128	Maltodextrin	Maltodextrin	6 ton/hr	CE-128	Baghouse
		Storage Bin #2				
SEP-130	EU-130	Maltodextrin	Maltodextrin	6 ton/hr	CE-130	Baghouse
		Storage Bin #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.

#### Table Maltodextrin-2. Emission Limits.

EP	EU	Opacity	PM / PM-10	Permit #
SEP-120	EU-120	20%	0.015 gr/scf, 0.10 lb/hr	ATI 4513 / PTO 5076
SEP-123	EU-123	20%	0.015 gr/scf, 0.10 lb/hr	ATI 4514 / PTO 5077
SEP-126	EU-126	20%	0.015 gr/scf, 0.10 lb/hr	ATI 4515 / PTO 5078
SEP-127	EU-127	20%	0.015 gr/scf, 0.10 lb/hr	ATI 4516 / PTO 5079
SEP-128	EU-128	20%	0.015 gr/scf, 0.10 lb/hr	ATI 4517 / PTO 5080
SEP-130	EU-130	20%	0.015 gr/scf, 0.10 lb/hr	ATI 4518 / PTO 5081

# Table Maltodextrin-3. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	<b>Authority for Requirement</b>
SEP-120	EU-120	Opacity	20%	LCO 10.7
SEP-123	EU-123	PM	0.1 gr/dscf	567 IAC 23.4(7)
SEP-126	EU-126			LCO 10.9(1)"g"
SEP-127	EU-127			, , ,
SEP-128	EU-128			
SEP-130	EU-130			

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

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4513 / PTO 5076

LCPH ATI 4514 / PTO 5077 LCPH ATI 4515 / PTO 5078 LCPH ATI 4516 / PTO 5079 LCPH ATI 4517 / PTO 5080 LCPH ATI 4518 / PTO 5081

#### **Operating Limits:**

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

A. All six bins combined (SEP-120, SEP-123, SEP-126, SEP-127, SEP-128, and SEP-130) shall not operate more than 8760 hours per year based on a 12-month rolling total.

Authority for Requirement: LCPH ATI 4513 / PTO 5076

LCPH ATI 4514 / PTO 5077 LCPH ATI 4515 / PTO 5078 LCPH ATI 4516 / PTO 5079 LCPH ATI 4517 / PTO 5080 LCPH ATI 4518 / PTO 5081

#### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County AQD and other federal or state air pollution regulatory agencies and/or their authorized representatives. Records shall be legible and maintained in an orderly manner. All monitors shall be easily accessible to air pollution personnel. These records shall show the following:

- A. Non-resettable hour meters shall be installed on each bin.
- B. During the first twelve (12) months of operation, determine the cumulative hours of operation for each bin for each month of operation.
- C. After the first twelve (12) months of operation, determine the annual hours of operation on a rolling 12-month basis for each month of operation.
- D. Daily pressure drop readings.
- E. Records of all maintenance and repair complete on the control equipment.

F. Copies of test results shall be retained until a new approved representative test is conducted or for 5 years, whichever is longer.

Authority for Requirement: LCPH ATI 4513 / PTO 5076

LCPH ATI 4514 / PTO 5077 LCPH ATI 4515 / PTO 5078 LCPH ATI 4516 / PTO 5079 LCPH ATI 4517 / PTO 5080 LCPH ATI 4518 / PTO 5081

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Maltodextrin-4.

			Stack Chara	Stack Characteristics					
EP	EU	LCPH ATI/PTO Numbers	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaus t Temp. (°F)	Exhaust Flow Rate (scfm)		
SEP-	EU-	4513 / 5076	64	Downward	6	130-165	800		
120	120								
SEP-	EU-	4514 / 5077	64	Downward	6	130-165	800		
123	123								
SEP-	EU-	4515 / 5078	64	Downward	6	130-165	800		
126	126								
SEP-	EU-	4516 / 5079	64	Downward	6	130-165	800		
127	127								
SEP-	EU-	4517 / 5080	64	Downward	6	130-165	800		
128	128								
SEP-	EU-	4518 / 5081	64	Downward	6	130-165	800		
130	130								

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

#### **Monitoring Requirements**

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

Stack testing for PM/PM<sub>10</sub> was successfully completed for emission point SEP-127 on February, 2005.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes ☐ No ⊠
Facility Maintained Operation & Maintenance Plan Required?	Yes ⊠¹ No □
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🗵

Authority for Requirement: 567 IAC 22.108(3)

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.

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Authority for Requirement: 567 IAC 22.108(3)

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<sup>&</sup>lt;sup>1</sup> Facility O&M required for EP 120, 123, 126, 127, 128, and 130

**Process Area: MALTODEXTRIN** 

Table Maltodextrin-5. Associated Equipment.

			Raw Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-	EU-			5 tons/hr	CE-	Baghouse
122	122A	Maltodextrin	Malta darrenia		122A	_
SEP-	EU-	Spray Dryer	Maltodextrin	0.04 MCF/hr	CE-	Baghouse
122	122B				122B	

# **Applicable Requirements**

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

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

Table Maltodextrin-6. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
		Opacity	20%	ATI 5330 / PTO 5585
				LCO 10.7
		$PM_{10}$	2.06 lb/hr,	ATI 5330 / PTO 5585
SEP-122	EU-122A	PM	2.06 lb/hr	ATI 5330 / PTO 5585
SEP-122	EU-122B		0.1 gr/dscf	567 IAC 23.4(7)
				LCO 10.9(1)"a"
		$SO_2$	0.02 lb/hr, 0.02 tpy	ATI 5330 / PTO 5585
			500 ppmv	LCO 10.12(2)

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

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

#### **Control Device:**

Two baghouses shall be used to control particulate emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5330 / PTO 5585

#### **Operating Limits:**

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

- A. The spray dryer shall be heated by natural gas or steam heat only.
- B. Pressure drop across each baghouse shall be maintained between 0.5 to 10 inches of water.

C. The control equipment on this unit shall be maintained and operated according to the manufacturer's specifications and good operating practices.

Authority for Requirement: LCPH ATI 5330 / PTO 5585

# **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and/or their authorized representatives.

- A. Pressure drop across each baghouse, CE-122A and CE-122B, shall be recorded on a daily basis while the control equipment is in operation.
- B. The owner or operator shall monitor and record "no visible emissions" on a weekly basis.
- C. Maintenance and repair completed on the control devices.
- D. Copies of test results shall be retained until a new approved representative test is conducted for this emission point.

Authority for Requirement: LCPH ATI 5330 / PTO 5585

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 141 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 78 Exhaust Temperature (°F): 160

Exhaust Temperature (°F): 160 Exhaust Flow Rate (scfm): 65,000

Authority for Requirement: LCPH ATI 5330 / PTO 5585

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

#### **Monitoring Requirements**

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

#### **Stack Testing:**

 $Pollutant - PM_{10}$ 

1st Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and

40 CFR Part 51, Appendix M, Method 202

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term

Test Method: 40 CFR 60, Appendix A, Method 5 and 40 CFR Part 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)

# **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring plan has been waived. PTO 5585 has CAM equivalent monitoring required.

**Process Area: MALTODEXTRIN** 

Table Maltodextrin-7. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-124	EU-124	Maltodextrin	Maltodextrin	24 ton/hr	CE-124	Baghouse
		Packaging Transfer Line				

# **Applicable Requirements**

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

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

#### Table Maltodextrin-8. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
		Opacity	20%	ATI 5025 / PTO 5320
				LCO 10.7
SEP-124	EU-124	PM <sub>10</sub>	0.31 lb/hr	ATI 5025 / PTO 5320
SEF-124		PM	0.31 lb/hr	ATI 5025 / PTO 5320
			0.1 gr/dscf	567 IAC 23.4(7)
				LCO 10.9(1)"a"

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

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control device shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained and operating during the operation of the emission unit and control device at all times..

Authority for Requirement: LCPH ATI 5025 / PTO 5320

#### **Operating Limits:**

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

- A. The control equipment shall be maintained according to the manufacturer's specifications and good operating practices.
- B. Pressure drop across the baghouse, CE-124, shall be maintained between 0.3 to 6 inches of water.

Authority for Requirement: LCPH ATI 5025 / PTO 5320

#### **Operating Condition Monitoring and Recordkeeping:**

- A. Pressure drop readings across the baghouse, CE-124, shall be recorded on a daily basis while the control equipment is in operation.
- B. Monitor and record "no visible emissions" observations on a weekly basis. An exceedance of the indicator opacity of **no visible emissions** will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance.
- C. Record all maintenance and repair completed to the control equipment.
- D. Retain copies of emission test results for compliance testing completed on this emission source.

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 5025 / PTO 5320

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 43 Discharge Style: Vertical, unobstructed

Stack Opening, (inches, dia.): 12 Exhaust Temperature (°F): 155 Exhaust Flow Rate (acfm): 5,400

Authority for Requirement: LCPH ATI 5025 / PTO 5320

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

**JAK** 

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

Authority for Requirement: 567 IAC 22.108(3)

**Process Area: MALTODEXTRIN** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-125 Emissions Control Equipment ID Number: CE-125 Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-125

Emission Unit Description: Maltodextrin Vacuum / Reprocess System

Raw Material/Fuel: Maltodextrin Rated Capacity: 1000 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): 20%

Authority for Requirement: LCPH ATI 3980 / PTO 4033

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.09 lb/hr, 0.38 tpy

Authority for Requirement: LCPH ATI 3980 / PTO 4033

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

Authority for Requirement: 567 IAC 23.4(7)

LCO 10.9(1)"g"

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

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions. The control device shall be operated at all times when any equipment controlled by the control device is operating. The control device shall be maintained on this source in a good operating condition at all times.

All appropriate probes and gauges needed to measure the parameters outlined in "Monitoring Requirements" shall be installed and maintained in a good operating condition.

Authority for Requirement: LCPH ATI 3980 / PTO 4033

#### **Operating Limits:**

This source shall be limited to 5865 hours of operation calculated on a 12-month rolling sum.

The airflow rate as it associates to emission calculated for this source has been limited to 1000 scfm. Any increase in airflow may necessitate a new Permit to Operate.

Authority for Requirement: LCPH ATI 3980 / PTO 4033

#### **Monitoring Requirements:**

The following information shall be monitored:

- A. Monthly hours of operation from a non-resettable hour meter.
- B. Daily pressure drop readings when operating.
- C. All monitors shall be easily accessible to air pollution personnel.

Authority for Requirement: LCPH ATI 3980 / PTO 4033

# **Recordkeeping Requirements:**

A log of operation shall be maintained for the above-listed unit. The following information shall be recorded and kept on-site for a period of no less than five years.

- A. Hours of operation calculated on a 12-month rolling sum.
- B. Daily pressure drop readings.
- C. Record of maintenance and repair completed on the control device.

These records shall be available on-site at all times for viewing by air pollution control personnel.

Authority for Requirement: LCPH ATI 3980 / PTO 4033

#### **Reporting:**

Submit an annual report summarizing the hours of operation based on a 12-month rolling sum.

Submit excess emission reports as required in Linn County Ordinance, Chapter 10, Section 14.

Authority for Requirement: LCPH ATI 3980 / PTO 4033

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

# **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

Authority for Requirement: 567 IAC 22.108(3)

**Process Area: MALTODEXTRIN** 

Table Maltodextrin-9. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-129	EU-129	Maltodextrin Packaging System	Maltodextrin	27 ton/hr	CE-129	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.

#### Table Maltodextrin-10. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
		Opacity	20%	ATI 5026 / PTO 5321
				LCO 10.7
SEP-129	EU-129	PM <sub>10</sub>	0.73 lb/hr	ATI 5026 / PTO 5321
SEF-129		PM	0.73 lb/hr	ATI 5026 / PTO 5321
			0.1 gr/dscf	567 IAC 23.4(7)
				LCO 10.9(1)"a"

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

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

#### **Control Device:**

A baghouse shall be installed to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LPCH ATI 5026 / PTO 5321

#### **Operating Limits:**

- A. Pressure drop across the baghouse, CE-129, shall be maintained between 0.3 to 14 inches of water.
- B. The emission point shall be limited to packaging 420,480, 000 pounds of maltodextrin per year.

Authority for Requirement: LCPH ATI 5026 / PTO 5321

#### **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized reporesentatives. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Pressure drop readings across the baghouse, CE-129, shall be recorded on a daily basis while the control equipment is in operation.
- B. Record process rate on a 12-month rolling total basis.
- C. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- D. Record all maintenance and repair completed to the control equipment.
- E. Retain copies of emission test results for compliance testing completed on this emission source.

Authority for Requirement: LCPH ATI 5026 / PTO 5321

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 110 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 20

Exhaust Temperature (°F): 71 Exhaust Flow Rate (scfm): 9684

Authority for Requirement: LCPH ATI 5026/ PTO 5321

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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.

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If an opacity >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

Yes No 
Authority for Requirement: 567 IAC 22.108(3)

JAK

**Process Area: FRUCTOSE** 

Table Fructose-1. Table Fructose. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE Description
SEP-153	EU-153	Fructose East MR	Dextrose	39,000	None
		Evaporator Vent		gallons/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.

#### Table Fructose-2. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-153	EII 152	SO.	0.10 lb/hr	ATI 5681 / PTO 5478
SEP-133	EU-133	$SO_2$	500 ppmv	LCO 10.7

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

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

# **Operating Limits:**

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

A. The operation of this emission unit(s) while operating on stillage is prohibited. The use of stillage would necessitate the owner or operator to apply for an authorization to install permit prior to this modification.

Authority for Requirement: LCPH ATI 5681 / PTO 5478

#### **Recordkeeping Requirements:**

There are no recordkeeping requirements for this source at this time.

Authority for Requirement: LCPH ATI 5681 / PTO 5478

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 55 Discharge Style: Vertical, unobstructed

Stack Opening, (inches, dia.): 6 Exhaust Temperature (°F): 192 Exhaust Flow Rate (acfm): 25

Authority for Requirement: LCPH ATI 5681 / PTO 5478

The temperature and flow rate 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 flow rate 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 own	ier/operator	of this	equipment	shall	comply	with the	monitoring	requirements	listed
below.									

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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: SEP-034, SEP-114** 

Process Area: SYRUP / REFINERY

Table Refinery-1. Associated Equipment.

	•		Raw			
		EU	Material/	Rated		CE
EP	EU	Description	Fuel	Capacity	CE ID	Description
SEP-034	EU-34A	Carbon	Spent	3333 lb/hr	CE-034A	Sly Venturi
		Furnace	Carbon			Impingejet
SEP-034	EU-34B	Carbon	Natural	23		Scrubber,
		Furnace –	Gas	MMBtu/hr	CE-034B	Zero Hearth
		Natural Gas				
SEP-114	EU-114A	Carbon	Spent	3333 lb/hr	CE-114A	Sly Venturi
		Furnace #2	Carbon			Impingejet
SEP-114	EU-114B	Carbon	Natural	23		Scrubber,
		Furnace #2 –	Gas	MMBtu/hr	CE-114B	Zero Hearth
		Natural Gas				

# **Applicable Requirements**

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

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

**Table Refinery-2. Emission Limits** 

EP	EU	Pollutant	Emission Limit(s)	<b>Authority for Requirement</b>
				ATI 4664 / PTO 5082
		Opacity	20%	ATI 4665 / PTO 5083
				LCO 10.7
		$PM_{10}^{1}$	1.61 lb/hr, 0.033 gr/dscf	ATI 4664 / PTO 5082
		PIVI10		ATI 4665 / PTO 5083
		$PM^1$	1.61 lb/hr, 0.033 gr/dscf	ATI 4664 / PTO 5082
SED 024	SEP-034 EU-34 SEP-114 EU-114	PIVI		ATI 4665 / PTO 5083
			4.49 lb/hr	ATI 4664 / PTO 5082
SEF-114				ATI 4665 / PTO 5083
		NOx <sup>1</sup>	4.49 lb/hr	ATI 4664 / PTO 5082
		NOX		ATI 4665 / PTO 5083
		VOC1	4.49 lb/hr	ATI 4664 / PTO 5082
		VOC		ATI 4665 / PTO 5083
		CO <sup>1</sup>	11.34 lb/hr	ATI 4664 / PTO 5082
				ATI 4665 / PTO 5083

<sup>&</sup>lt;sup>1</sup> Emissions are limited to maintain synthetic minor status for the project. Project emissions include the installation of two carbon furnaces (EP 034 and 114).

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

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

#### **Control Device:**

A Venturi scrubber shall be used to control particulate and sulfur dioxide emissions. The zero hearth furnace afterburner shall be used to control volatile organic compounds (VOC) and carbon monoxide (CO) emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4664 / PTO 5082

LCPH ATI 4665 / PTO 5083

#### **Operating Limits:**

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

- A. Re-circulation water to the scrubber shall be greater than 350 gallons per minute.
- B. pH of the scrubbing liquor shall be maintained above 5.
- C. This unit shall burn natural gas only.

Authority for Requirement: LCPH ATI 4664 / PTO 5082

LCPH ATI 4665 / PTO 5083

#### **Operating Condition Monitoring and Recordkeeping:**

The following shall be monitored and recorded:

- A. Daily pressure drop readings.
- B. Daily scrubber water re-circulation rate.
- C. Daily scrubber pH.
- D. Visible emissions shall be observed on a weekly basis to ensure that no visible emissions occur during material handling of the unit.
- E. Maintenance and repair completed to the control unit.
- F. Maintain copies of source test results until a new approved representative test is conducted or for five (5) years, whichever is longer.

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 4664 / PTO 5082

LCPH ATI 4665 / PTO 5083

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Table Refinery-3.

		Stack Characteristics				
		Stack		Stack		Exhaust
	LCPH	Height		Opening	Exhaust	Flow
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate
EP	Numbers	ground)	Style	dia.)	(°F)	(scfm)
SEP-034	4664 / 5082	110	Vertical,	27	160	5700
			unobstructed			
SEP-114	4665 / 5083	90	Vertical,	30	160	5700
			unobstructed			

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

#### **Monitoring Requirements**

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

# **Stack Testing:**

EP 034 - Pollutant - CO

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term Test Method – Method 10 (40 CFR 60) or approved alternative Authority for Requirement – 567 IAC 22.108(3)

EP 114 - Pollutant - CO

1<sup>st</sup> Stack Test to be Completed within the first two years of permit term Test Method – Method 10 (40 CFR 60) or approved alternative Authority for Requirement – 567 IAC 22.108(3)

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to

retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes ☐ No ⊠
Facility Maintained Operation & Maintenance Plan Required?	Yes 2 No
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ⊠ <sup>2</sup> 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)

<sup>&</sup>lt;sup>1</sup>Facility O&M for Venturi Scrubber PM/PM<sub>10</sub> control is required for EP 034 and EP 114. <sup>2</sup> CAM for Zero Hearth CO control is required for both EP 034 and EP 114. See Appendix B.

**Process Area: SYRUP / REFINERY** 

Associated Equipment

Associated Emission Unit ID Numbers: EU-112 Emissions Control Equipment ID Number: CE-112

Emissions Control Equipment Description: Refinery Acid Tank Scrubber

Emission Unit vented through this Emission Point: EU-112 Emission Unit Description: Refinery Acid Tank Scrubber System

Raw Material/Fuel: 35% Hydrochloric Acid

Rated Capacity: 900 gal/hr

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4490 / PTO 4701

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.16 lb/hr

Authority for Requirement: LCPH ATI 4490 / PTO 4701

Pollutant: Particulate Matter

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

Authority for Requirement: LCPH ATI 4490 / PTO 4701

567 IAC 23.4(7) LCO 10.9(1)"g"

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

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

#### **Control Device:**

A packed scrubber shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4490 / PTO 4701

08-TV-004R1-M002, Jan. 1, 2020

#### **Operating Limits:**

Throughput through the tanks shall be limited to 900 gallons per hour (7,884,000 gallons per year) for all tanks combined.

Tanks shall not be removed or added without obtaining the proper permits (if required).

Authority for Requirement: LCPH ATI 4490 / PTO 4701

#### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Annual acid throughput calculated on a 12-month rolling total.

Records of all maintenance and repair completed to the scrubber.

Authority for Requirement: LCPH ATI 4490 / PTO 4701

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 45

Discharge Style: Vertical

Stack Opening, (inches, diameter): 8 Exhaust Temperature (°F): 90

Exhaust Flow Rate (scfm): 200

Authority for Requirement: LCPH 4490 / PTO 4701

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If

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

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

Yes No 
Authority for Requirement: 567 IAC 22.108(3)

Process Area: SYRUP / REFINERY

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-387 Emissions Control Equipment ID Number: CE-387

Emissions Control Equipment Description: Refinery Heavy Steepwater Tank

Emission Unit vented through this Emission Point: EU-387 Emission Unit Description: Refinery Heavy Steepwater Tank

Raw Material/Fuel: Heavy Steepwater

Rated Capacity: 21000 gal/hr

# **Applicable Requirements**

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

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

Pollutant: SO<sub>2</sub>

Emission Limit(s): 0.08 lb/hr

Authority for Requirement: LCPH ATI 4842 / PTO 6125

Pollutant: SO<sub>2</sub>

Emission Limit(s): 500 ppmv

Authority for Requirement: LCPH ATI 4842 / PTO 6125

LCO 10.12(2)

Pollutant: VOC

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: LCPH ATI 4842 / PTO 6125

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 42 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 8 Exhaust Temperature (°F): 134

Exhaust Flow Rate (acfm): 47

Authority for Requirement: LCPH 4842 / PTO 6125

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

# Monitoring Requirements The owner/operator of this equipment shall comply with the monitoring requirements listed below. Stack testing is not required at this time. Opacity monitoring is not required at this time. Agency Approved Operation & Maintenance Plan Required? Yes □ No ☑ Facility Maintained Operation & Maintenance Plan Required? Yes □ No ☑

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring (CAM) Plan Required?

Yes 🗌 No 🖂

Emission Point ID Number: SEP-091, SEP-092, SEP-093,

SEP-094, SEP-097, SEP-516, SEP-540

**Process Area: UTILITIES** 

#### Table Utilities-1. Emission Point IDs.

			Raw Material/	Rated
EP	EU	EU Description	Fuel	Capacity
SEP-091	EU-91	Dry Starch Diesel Generator	Diesel Fuel	44.8 gal/hr
SEP-092	EU-92	#3 Cooling Tower Emergency	Diesel Fuel	49.4 gal/hr
		Generator		_
SEP-093	EU-93	Alcohol / Waste Treatment	Diesel Fuel	44.8 gal/hr
		Emergency Generator		
SEP-094	EU-94	Fructose Emergency Generator	Diesel Fuel	19 gal/hr
SEP-097	EU-97	Boiler Room #2 Emergency	Diesel Fuel	44.8 gal/hr
		Diesel Generator		
SEP-516	EU-516	Co-Gen Emergency Generator	Diesel Fuel	42.4 gal/hr
SEP-540	EU-540	Co-Gen 2 Emergency Diesel	Diesel Fuel	59.2 gal/hr
		Generator		

# **Applicable Requirements**

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

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

#### **Table Utilities-2. Emission Limits.**

EP	Opacity	PM <sub>10</sub> *	PM*	SO <sub>2</sub> *	NOx*	ATI / PTO #
SEP-091	20%	0.86 lb/hr	0.1 gr/dscf,	3.10 lb/hr	19.64 lb/hr	4706 / 4847
			0.86 lb/hr			
SEP-092	20%	0.95 lb/hr	0.1 gr/dscf,	3.42 lb/hr	21.66 lb/hr	4707 / 4848
			0.95 lb/hr			
SEP-093	20%	0.86 lb/hr	0.1 gr/dscf,	3.10 lb/hr	19.64 lb/hr	4708 / 4849
			0.86 lb/hr			
SEP-094	20%	0.81 lb/hr	0.1 gr/dscf	0.75 lb/hr	11.48 lb/hr	4709 / 4850
			0.81 lb/hr			
SEP-097	20%	0.86 lb/hr	0.1 gr/dscf,	3.10 lb/hr	19.64 lb/hr	4710 / 4851
			0.86 lb/hr			
SEP-516	20%	0.86 lb/hr	0.1 gr/dscf,	2.93 lb/hr	18.59 lb/hr	4711 / 4852
			0.86 lb/hr			
SEP-540	20%	1.14 lb/hr	0.1 gr/dscf,	4.10 lb/hr	25.95 lb/hr	4712 / 4853
			1.14 lb/hr			

<sup>\*</sup>Emission rate used to demonstrate no exceedance of the National Ambient Air Quality Standards (NAAQS).

Table Utilities-3. General Emission Limits.

			Authority for
EP	Pollutant	<b>Emission Limit(s)</b>	Requirement
SEP-091 SEP-097	Opacity	20%	LCO 10.7
SEP-092 SEP-516	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
SEP-093 SEP-540			LCO 10.9(1)"a"
SEP-094			, ,

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

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

#### **Operating Limits:**

- A. This emission unit shall not operate more than 500 hours in any rolling twelve-month period.
- B. This emission unit shall operate on #1 or #2 distillate fuel only.
- C. The sulfur content of the fuel oil shall not exceed 0.5 percent by weight.

Authority for Requirement: LCPH ATI 4706 / PTO 4847

LCPH ATI 4707 / PTO 4848 LCPH ATI 4708 / PTO 4849 LCPH ATI 4709 / PTO 4850 LCPH ATI 4710 / PTO 4851 LCPH ATI 4711 / PTO 4852 LCPH ATI 4712 / PTO 4853

#### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspections by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Maintain records clearly showing the type of fuel utilized and the sulfur content of that fuel.
- B. Record the hours of operation for the emission unit for each month of operation.
- C. The annual hours of operation for the emission unit shall be updated on a 12-month rolling basis, for each month of operation.

Authority for Requirement: LCPH ATI 4706 / PTO 4847

LCPH ATI 4707 / PTO 4848 LCPH ATI 4708 / PTO 4849 LCPH ATI 4709 / PTO 4850 LCPH ATI 4710 / PTO 4851 LCPH ATI 4711 / PTO 4852 LCPH ATI 4712 / PTO 4853

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Utilites-4.

		Stack Charac	eteristics			
EP	LCPH ATI / PTO Numbers	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp.	Exhaust Flow Rate (acfm)
SEP-091	4706 / 4847	30	Vertical, unobstructed	10	650	5018
SEP-092	4707 / 4848	29	Vertical, unobstructed	10	650	6536
SEP-093	4708 / 4849	34	Vertical, unobstructed	8	650	5018
SEP-094	4709 / 4850	50	Vertical, unobstructed	8	650	2358
SEP-097	4710 / 4851	44	Vertical, unobstructed	11	650	5018
SEP-516	4711 / 4852	12	Vertical, unobstructed	10	650	3669
SEP-540	4712 / 4853	12	Vertical, unobstructed	8	964	6879

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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)

**Process Area: UTILITIES** 

Table Utilities-5. Associated Equipment.

			Raw Material/		
EP	EU	EU Description	Fuel	Rated Capacity	CE Description
SEP-	EU-	Fructose Cooling	Water	750,000 gal/hr	Drift Eliminator
170	170A	Tower #2 Cell A		_	
SEP-	EU-	Fructose Cooling	Water	750,000 gal/hr	Drift Eliminator
170	170B	Tower #2 Cell B		_	
SEP-	EU-	Fructose Cooling	Water	750,000 gal/hr	Drift Eliminator
170	170C	Tower #2 Cell C		_	
SEP-	EU-	Fructose Cooling	Water	750,000 gal/hr	Drift Eliminator
170	170D	Tower #2 Cell D		_	
SEP-	EU-	Fructose Cooling	Water	750,000 gal/hr	Drift Eliminator
170	170E	Tower #2 Cell E		_	

# **Applicable Requirements**

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

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

#### Table Utilities-6. Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
		Opacity	20%	ATI 5550 / PTO 5767
				LCO 10.7
SEP-170	EU-170	PM <sub>10</sub>	0.57 lb/hr	ATI 5550 / PTO 5767
SEF-170	EU-1/0	PM	0.1 gr/dscf	ATI 5550 / PTO 5767
				567 IAC 23.4(7)
				LCO 10.9(1)"a"

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

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

#### **NSPS and NESHAP Applicability:**

The National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart Q National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers shall apply to this source pursuant to LCO 10.9(4)"q" and 567 IAC 23.1(4)"q".

Authority for Requirement: LCPH ATI 5550 / PTO 5767

#### **Operating Limits:**

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

A. The circulating water in the cooling tower shall not exceed 2500 parts per million by weight (ppmw) (2500 mg/L) total dissolved solids (TDS).

- B. Chromium based or VOC containing water treatment chemicals shall not be used in these emission units.
- C. The owner or operator shall maintain the cooling tower drift eliminators according to manufacturer's specification, instructions and maintenance schedule.

Authority for Requirement: LCPH ATI 5550 / PTO 5767

#### **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall complete an analysis of the TDS of the water in the cooling tower at least once for each calendar month this emission unit is in operation.
- B. The owner or operator shall maintain a record of the manufacturer's drift loss guarantee for the cooling tower drift eliminators.
- C. Maintain a material safety data sheet of all water treatment chemicals used.
- D. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the cooling tower.

Authority for Requirement: LCPH ATI 5550 / PTO 5767

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 42 Discharge Style: Vertical, unobstructed Stack Opening, (inches, dia.): 408 Exhaust Temperature (°F): 80

Exhaust Flow Rate (acfm): 4 cells @ 1,186,751 acfm per cell; 1 cell at 1,171,570 acfm per cell

Authority for Requirement: LCPH ATI 5550 / PTO 5767

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

# Monitoring Requirements The owner/operator of this equipment shall comply with the monitoring requirements listed below. Stack testing is not required at this time. Opacity monitoring is not required at this time. Agency Approved Operation & Maintenance Plan Required? Yes □ No ☑ Facility Maintained Operation & Maintenance Plan Required? Yes □ No ☑

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring (CAM) Plan Required?

Yes 🗌 No 🖂

Emission Point ID Number: EU-095, EU-096, EU-517, EU-518

**Process Area: UTILITIES** 

Table Utilities-7. Associated Equipment.

			Raw Material/		CE
EP	EU	EU Description	Fuel	Rated Capacity	Description
	EU-095	North Corn Plant Diesel Fire Pump	Diesel	302 hp	None
	EU-096	South Corn Plant Diesel Fire Pump	Diesel	302 hp	None
	EU-517	East Co-Gen Diesel Fire Pump	Diesel	340 hp	None
	EU-518	West Co-Gen Diesel Fire pump	Diesel	340 hp	None

# **Applicable Requirements**

Pollutant: Opacity

Emission Limit(s): 40 %

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

Pollutant: Opacity

Emission Limit(s): 20%

Authority for Requirement: LCO 10.7

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

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

LCO 10.9(1)"a"

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

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

Pollutant: Sulfur Dioxide (SO2) Emission Limit(s): 1.5 lb/MMBtu

Authority for Requirement: LCO 10.12(1)"b"

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

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

#### **Process throughput:**

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **NSPS and NESHAP Applicability:**

The National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, shall apply to this source pursuant to LCO 10.9(4)"zzzz" and 567 IAC 23.1(4)"cz".

## Existing, Compression, Emergency ≤ 500 hp, at a Major HAP Source

#### **NESHAP**

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

#### Compliance Date

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

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

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

#### Operating Limits 40 CFR §63.6640(f)

- 1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
- 2. There is no time limit on the use of emergency stationary RICE in emergency situations.
- 3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR §63.6640(f)(2) for additional information and restrictions.

4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

# Recordkeeping Requirements 40 CFR §63.6655

- 1. Keep records of the maintenance conducted on the stationary RICE.
- 2. Keep records of the hours of operation of the engine that is recorded through the 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" LCO 10.9(4)"zzzz"

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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)

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**Emission Point ID Number: SEP-459, SEP-460** 

**Process Area: COGENERATION** 

Table Co-Gen 1. Associated Equipment.

EP	EU	EU Description	Raw Material /Fuel	Rated Capacity	CE	CE Description
SEP-459	EU-459	Natural Gas	Natural	292.5	CE-459	Advanced Ultra-Low
		Fired Boiler #3	Gas	MMBtu/hr		NOx Burners with FGR
SEP-460	EU-460	Natural Gas	Natrual	292.5	CE-460	Advanced Ultra-Low
		Fired Boiler #2	Gas	MMBtu/hr		NOx Burners with FGR

# **Applicable Requirements**

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

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

Table Co-Gen 2. Opacity and Particulate Matter Emission Limits.

				Particulate	
EP	EU	Opacity	PM <sub>10</sub>	Matter	Authority for Requirement
SEP-459	EU-459	$0\%^{1}$	0.005	0.005	DNR PSD Permit
SEP-460	EU-460		lb/MMBtu <sup>2</sup>	lb/MMBtu <sup>2</sup>	#07-A-579-P
			1.46 lb/hr <sup>2,4</sup>		DNR PSD Permit
					#07-A-580-P
				0.030	40 CFR §60.43b Subpart Db
				lb/MMBtu <sup>3</sup>	-

#### Table Co-Gen 3. Sulfur Dioxide Emission Limits.

EP	EU	SO <sub>2</sub>	Authority for Requirement
SEP-459	EU-459	0.0006 lb/MMBtu <sup>5</sup>	DNR PSD Permit #07-A-579-P
SEP-460	EU-460	0.17 lb/hr <sup>2,4</sup>	DNR PSD Permit #07-A-580-P
		0.20 lb/MMbtu <sup>6</sup>	40 CFR §60.42b Subpart Db

Table Co-Gen 4. Nitrogen Oxides and Carbon Monoxide Emission Limits.

				Authority for
EP	EU	$NO_X$	CO	Requirement
SEP-459	EU-459	0.02 lb/MMBtu <sup>5,7</sup>	0.072 lb/MMBtu <sup>5,7</sup>	DNR PSD Permit
SEP-460	EU-460	$25.62 \text{ tpy}^8$	and 92.24 tpy <sup>8</sup>	#07-A-579-P
		5.85 lb/hr <sup>2,4</sup>	21.06 lb/hr <sup>2,4</sup>	DNR PSD Permit
				#07-A-580-P
		0.20 lb/MMBtu <sup>6,9</sup>		40 CFR §60.44b
				Subpart Db
			400 ppm <sub>vd</sub> <sup>10</sup>	40 CFR §63.7500
				Subpart DDDDD

#### Table Co-Gen 5. Other Emission Limits.

EP	EU	VOC	Authority for Requirement
SEP-459	EU-459	$0.0054 \text{ lb/MMBtu}^2$	DNR PSD Permit #07-A-579-P
SEP-460	EU-460		DNR PSD Permit #07-A-580-P

#### Table Co-Gen 6. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-459	EU-459	Opacity	40%	567 IAC 23.3(2)"d"
SEP-460	EU-460		20%	LCO 10.7
		PM	0.6 lb/MMBtu	567 IAC 23.3(2)"b"(2)
			0.275 lb/MMBtu	LCO 10.8(2)"b"
		SO <sub>2</sub>	500 ppm <sub>v</sub>	567 IAC 23.3(3)"e"
				LCO 10.12(2)

<sup>&</sup>lt;sup>1</sup> Standard is expressed as a six-minute average.

<sup>&</sup>lt;sup>2</sup> Standard is expressed as the average of 3 test runs.

<sup>&</sup>lt;sup>3</sup> Standard is expressed as the average of 3 test runs and applies at all times, excluding periods of startup, shutdown, and malfunction. Per 40 CFR §60.43b(h)(5), if the boilers combust only gaseous fuels with potential sulfur dioxide emission rates of 0.32 lb/MMBtu heat input or less, they are not subject to the PM limit listed above.

<sup>&</sup>lt;sup>4</sup> The limit for PM<sub>10</sub> emissions is established to limit emissions below levels that predict exceedances of the 24-hour NAAQS, the 24-hour increment, and the annual increment for PM<sub>10</sub>. The limit for SO<sub>2</sub> emissions is established to limit emissions below levels that predict exceedances of the 3-hour, 24-hour, and annual NAAQS and increment for SO<sub>2</sub>. The limit for NO<sub>X</sub> emissions is established to limit emissions below levels that predict exceedances of the annual NAAQS and increment for NO<sub>X</sub>. The limit for CO emissions is established to limit emissions below levels that predict exceedances of the 1-hour and 8-hour NAAQS for CO.

<sup>&</sup>lt;sup>5</sup> Standard is expressed as a 30-day rolling average.

<sup>&</sup>lt;sup>6</sup> Standard is expressed as a 30-day rolling average and applies at all times, including periods of startup, shutdown, and malfunction.

<sup>&</sup>lt;sup>7</sup> The NO<sub>X</sub> and CO pound per million Btu standards apply at all times, except during periods of startup, shutdown, or malfunction.

<sup>&</sup>lt;sup>8</sup> The NO<sub>X</sub> and CO ton per year standards are expressed as a 12-month rolling total and apply at all times, including during periods of startup, shutdown, or malfunction.

<sup>&</sup>lt;sup>9</sup> The boilers may comply with an optional limit of 270 ng/J (2.1 lb/MWh) gross energy output, based on a 30-day rolling average. Units complying with this output-based limit must demonstrate compliance according to the procedures of 40 CFR §60.48Da(i), and must monitor emissions according to 40 CFR §60.49Da(c), and (k) through (n).

<sup>&</sup>lt;sup>10</sup> Standard is a 30-day rolling average, corrected to 3% O<sub>2</sub>, and applies at all times, except during periods of startup, shutdown, malfunction, and when your boilers or process heater is operating at less than 50% of rated capacity.

# **Operational Limits & Requirements**

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

#### **Control Device:**

Advanced ultra-low NO<sub>X</sub> burners with flue gas recirculation will be used to reduce nitrogen oxide emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in [Operating Condition Monitoring and Recordkeeping] shall be installed, maintained, and operating during the operation of the emission unit and control devices at all times.

Authority for Requirement: LCPH ATI 5238 / PTO 5789

LCPH ATI 5239 / PTO 5790

# **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 Db - Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units (40 CFR §60.40b through 40 CFR §60.49b) and is also subject to the requirements of 567 IAC 23.1(2)"ccc".

As provided in 40 CFR §63.7480 through 40 CFR §63.7570, this emission unit is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart DDDDD - Industrial, Commercial, and Institutional Boilers and Process Heaters as a new large gaseous fuel unit with a heat input greater than 100 MMBtu/hr. This emission unit is also subject to Subpart A - General Provisions (40 CFR §63.1 through 40 CFR §63.15) and is also subject to the requirements of 567 IAC 23.1(4)"dd".

Authority for Requirement: DNR PSD Permit #07-A-579-P

DNR PSD Permit #07-A-580-P

#### **Operating Limits:**

- A. The owner or operator shall furnish the Department with final detailed plans and specifications for all emission control equipment selected by the owner to meet the emission limits contained in **Tables Co-Gen 2, 3, 4, 5, and 6**. In addition, the facility shall detail all revisions made to the affected emission units and provide a startup, shutdown, and malfunction plan (SSMP) for the emission unit and control device. This information shall be submitted to the Department at least 30 days in advance of construction of any control equipment.
- B. The owner or operator shall operate and maintain Boilers #3 and #2 and all control equipment according to the provisions in 40 CFR §63.6(e).
- C. The owner or operator shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) for Boilers #3 and #2, according to the provisions in 40 CFR §63.6(e).
- D. Boilers #3 and #2 shall be limited to firing on natural gas only.

Authority for Requirement: DNR PSD Permit #07-A-579-P

DNR PSD Permit #07-A-580-P

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

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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall maintain records of fuel supplier certifications of sulfur content reported in pounds per million Btu of the fuels burned in Boilers #3 and #2. The facility shall request monthly fuel certification from the vendor unless the certification of the sulfur content from the previous month did not change. The owner or operator shall maintain a record of the date they contacted the vendor to determine if the certification is still valid. The facility shall request a new certification if the previous month's certification of the sulfur content is no longer representative of the boilers' combusted fuel. The facility may use preliminary data available from the vendor to determine the sulfur content of the fuel. If the preliminary data indicate that the sulfur content is within 90% of the emission limit established in Permit Condition 10a, the facility shall request a formal certification from the supplier of the sulfur content of the fuel.
- B. The owner or operator shall follow the notification, recordkeeping, and reporting requirements of 40 CFR §60.49b and 40 CFR §63.7550.
- C. The owner or operator of an affected facility subject to the nitrogen oxides standards under 40 CFR §60.44b shall maintain records of the following information for each steam generating unit operating day:
  - 1) Calendar date.
  - 2) The average hourly nitrogen oxides emission rates (expressed and NO2) (ng/J or lb/MMBtu heat input) measured or predicted.
  - 3) The 30-day average nitrogen oxides emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
  - 4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emission standards under 40 CFR §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.
  - 5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
  - 6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
  - 7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
  - 8) Identification of the times when the pollutant concentration exceed full span of the continuous monitoring system.

- 9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
- 10) Results of daily CEMS drift tests and quarterly accuracy assessments, as required under 40 CFR §60, Appendix F, Procedure 1.
- D. The owner or operator shall maintain records of monthly fuel use by Boilers #3 and #2, including the type of fuel and amount according to 40 CFR §63.7555 and 40 CFR §63.7560.
- E. 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 PSD Permit #07-A-579-P

DNR PSD Permit #07-A-580-P

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Table Co-Gen 7.

		Stack Characteristics				
		Stack	Stack			Exhaust
	LCPH	Height		Opening	Exhaust	Flow
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate
EP	Numbers	ground)	Style	dia.)	(°F)	(scfm)
SEP-459	5238 / 5789	75	Vertical,	78	294	72,000
			unobstructed			
SEP-460	5239 / 5790	75	Vertical,	78	294	72,000
			unobstructed			

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

## **Monitoring Requirements**

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

# **Stack Testing:**

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The following stack tests shall be performed:

Pollutant – Volatile Organic Compounds (VOC)<sup>1</sup>

1<sup>st</sup> Stack Test to be Completed by – within first two years of permit term Test Method – Method 25A (40 CFR Part 60, Appendix A)

Authority for Requirement – 567 IAC 22.108(3)

<sup>&</sup>lt;sup>1</sup> ADM may choose to perform the required tests on either Natural Gas Fired Boiler #3 or #2. One set of tests may be used to represent emissions and compliance from both Natural Gas Fired

Boilers #3 and #2. If the test results for any pollutant are 90% or above of the applicable standard, additional testing of both boilers shall be required. A test protocol must be approved by the Department's stack testing personnel prior to testing.

# **Opacity Monitoring:**

Opacity monitoring is not required at this time.

# **Continuous Emission Monitoring:**

Per 40 CFR §60.48b, the owner or operator shall demonstrate compliance with the nitrogen oxide emission limits of this permit through the use of a continuous emission monitoring system (CEMS). The facility shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged to the atmosphere. CEMS shall be installed, evaluated, operated, and date collected, as required under 40 CFR §60.48b(c), (d), (e), and (f).

Per 40 CFR §63.7525, the owner or operator shall demonstrate compliance with the carbon monoxide emission limits of this permit through the use of a CEMS. The facility shall install, operate, and maintain a CEMS for carbon monoxide and oxygen, as required under 40 CFR §63.7525(a)(1) through (a)(6).

The CEMS required by this permit shall be operated and data recorded during all periods of operation of the boilers, except for CEMS breakdown and repairs. Data shall be recorded during calibration checks, and zero and span adjustments.

Authority for Requirement:	DNR PSD Permit #07-A-579-P
	DNR PSD Permit #07-A-580-P

 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: SEP-501** 

**Process Area: COGENERATION** 

**Table Co-Gen 8. Emission Point Description.** 

			Raw Material/	
EP	EU	EU Description	Fuel	Rated Capacity
SEP-501	EU-501A	Co-Gen Boiler #1	Coal	551.50 MMBtu/hr
SEP-501	EU-501AN	Co-Gen Boiler #1	Natural Gas	0.22 MMCF/hr
SEP-501	EU-501BF	Co-Gen Boiler #1	Fuel Oil	
SEP-501	EU-501B	Co-Gen Boiler #2	Coal	551.50 MMBtu/hr
SEP-501	EU-501BN	Co-Gen Boiler #2	Natural Gas	0.22 MMCF/hr
SEP-501	EU-501BF	Co-Gen Boiler #2	Fuel Oil	

Table Co-Gen 9. Associated Equipment.

EP	EU	CE ID	CE Description	ME ID
SEP-501	EU-501A	CE-501A	Co-gen Boiler #1 Baghouse	ME-501A, ME-501C,
		CE-501C	Limestone Injection	ME-501D, ME-501F,
			SNCR	ME-501H, ME-501I
SEP-501	EU-501AN	CE-501A	Co-gen Boiler #1 Baghouse	ME-501A, ME-501C,
		CE-501C	Limestone Injection	ME-501D, ME-501F,
			SNCR	ME-501H, ME-501I
SEP-501	EU-501B	CE-501B	Co-gen Boiler #2 Baghouse	ME-501B, ME-501C,
		CE-501D	Limestone Injection	ME-501E, ME-501G,
			SNCR	ME-501H, ME-501I
SEP-501	EU-501BN	CE-501B	Co-gen Boiler #2 Baghouse	ME-501B, ME-501C,
		CE-501D	Limestone Injection	ME-501E, ME-501G,
			SNCR	ME-501H, ME-501I

# **Applicable Requirements**

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

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

Table Co-Gen 10. Opacity Emission Limits.

EP	Opacity	Authority for Requirement
SEP-501	20%, 6-minute average except for one 6-	40 CFR §60.43b(f) Subpart Db
	minute period per hour of not more than	40 CFR §60.46b(a) Subpart Db
	27%	567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)
SEP-501	20%	LCO 10.7

Table Co-Gen 11. Particulate Matter Emission Limits.

EP	PM-10	Particulate Matter	Authority for Requirement
SEP-501	0.03 lb/MMBtu	0.03 lb/MMBtu	DNR PSD Permit #86-A-090P1
			DNR PSD Permit #86-A-091P1
SEP-501		0.051 lb/MMBtu	40 CFR §60.43b(a)(1) Subpart Db
			40 CFR §60.46b(a) Subpart Db
			567 IAC 23.1(2)"ccc"
			LCO 10.9(2)"a"(55)

Table Co-Gen 12. Sulfur Dioxide (SO<sub>2</sub>) Emission Limits.

EP	Sulfur Dioxide (SO <sub>2</sub> )	Authority for Requirement
For coal	supplies (or coal blends) which have an equ	ivalent inlet SO <sub>2</sub> rate greater than 2.0
lb/MMBt	tu:	
SEP-501	0.45 lb/MMBtu, 30-day rolling average <sup>3,7</sup>	DNR PSD Permit #86-A-090P1
	90% reduction of equivalent inlet SO <sub>2</sub> rate <sup>3,6,7</sup> , 30-day rolling average	DNR PSD Permit #86-A-091P1
	<u> </u>	
	supplies (or coal blends) which have an equ	ivalent inlet SO2 rate less than or
equal to 2	2.0 lb/MMBtu:	
SEP-501	0.20 lb/MMBtu, 30-day rolling average <sup>3,8</sup>	DNR PSD Permit #86-A-090P1
		DNR PSD Permit #86-A-091P1
Other sta	indards:	
SEP-501	1.03 lb/MMBtu, 3-hour rolling average <sup>9</sup>	DNR PSD Permit #86-A-090P1
		DNR PSD Permit #86-A-091P1
SEP-501	1.2 lb/MMBtu	40 CFR §60.42b(a), (e), (g), Subpart
	90% reduction of equivalent inlet SO <sub>2</sub> rate,	Db
	30-day rolling average	40 CFR §60.45b(a) Subpart Db
		567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)
SEP-501	1.5 lb/MMBtu when burning liquid fuel	LCO 10.12(1)"b"
SEP-501	5 lb/MMBtu, 2-hour rolling average, when	LCO 10.12(1)"a"
	burning solid fuel	
SEP-501	500 ppmv	567 IAC 23.3(3)"e"

Table Co-Gen 13. Nitrogen Oxides and Carbon Monoxide Emission Limits.

EP	NO <sub>X</sub>	CO	Authority for Requirement
SEP-501	TBD <sup>4,5</sup>	0.20 lb/MMBtu, 3-	DNR PSD Permit #86-A-090P1
		hour average <sup>9</sup>	DNR PSD Permit #86-A-091P1
SEP-501	260 ng/J, 0.6 lb/MMBtu,		40 CFR §60.44b(a) Subpart Db
	30-day rolling average		40 CFR §60.44b(h)-(i) Subpart Db
			40 CFR §60.46b(a) Subpart Db
			567 IAC 23.1(2)"ccc"
			LCO 10.9(2)"a"(55)
SEP-501	0.07 lb/MMBtu, 30-day		LCPH ATI 6131 / PTO 6267
	rolling average <sup>5</sup>		

# Table Co-Gen 14. Other Emission Limits.

EP	Fluorides	Lead	Beryllium	Authority for Requirement
SEP-501	0.75 lb/hr,			DNR PSD Permit #86-A-090P1
	3-hour			DNR PSD Permit #86-A-091P1
	average <sup>9</sup>			
SEP-501		<1.24x10 <sup>-4</sup>	<8.28x10 <sup>-8</sup>	DNR PSD Permit #86-A-090P1
		lb/MMBtu,	lb/MMBtu,	DNR PSD Permit #86-A-091P1
		0.068 lb/hr	<4.56x10 <sup>-5</sup> lb/hr	

Standard is expressed as the average of three (3) runs.

<sup>&</sup>lt;sup>2</sup> Standard is a 12-month rolling total.

<sup>&</sup>lt;sup>3</sup> Standard is a 30-day rolling average.

<sup>&</sup>lt;sup>4</sup> This emission limit is waived for the specific optimization study activity as detailed in Operating Limits item C not to extend more than 365 days after the modifications have been completed.

<sup>&</sup>lt;sup>5</sup> This standard is a 30-day rolling average that includes all periods of operation except for cold startup periods. A cold startup period is defined as that period of time when a coal-fired cogen boiler is proceeding to increase the temperature in the lower combustor from less than 400° F to at least 1,500° F. This period shall last no more than forty-eight (48) hours and NO<sub>x</sub> emissions data from this period shall be excluded when determining compliance with the permitted emission limit. Ammonia injection shall begin as soon as the lower combustor temperature reaches 1,500° F and the cold startup period will end at this time. All data from cold startup periods after the first forty-eight (48) hours, or while ammonia is injected in the boiler, will be included in determining compliance with the optimized limit.

<sup>&</sup>lt;sup>6</sup> The equivalent inlet SO<sub>2</sub> emission rate means the stack emissions (on a lb/MMBtu heat input basis) that would result from the combustion of "as fired" coal in the boiler without SO<sub>2</sub> absorption, assuming 100% conversion of sulfur in the coal to SO<sub>2</sub>.

<sup>&</sup>lt;sup>7</sup> When SO<sub>2</sub> inlet > 2.0 lb/MMBtu.

<sup>&</sup>lt;sup>8</sup> When SO<sub>2</sub> inlet < 2.0 lb/MMBtu.

<sup>&</sup>lt;sup>9</sup> Standard is a 3-hour rolling average.

# **Operational Limits & Requirements**

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

# **Operating Limits:**

Operating limits for this emission source are:

- A. The fuel combusted shall be limited to gas (for startup), oil (for startup), and coal.
- B. The owner or operator must receive an approval from the IDNR central office before a fuel other than specified above is combusted in the boilers. The IDNR shall reevaluate the fuel and may impose best available control technology (BACT) emission standards (including a percent reduction requirement) for the fuel type (or combination) in question. Other PSD-related procedures (e.g., dispersion modeling studies) may also be required.
- C. The owner/operator may conduct a study on the boiler to determine the optimized performance of the system within one year after the startup date. In lieu of submitting a study plan and conducting a study, ADM may submit documentation showing that a boiler is equivalent in design, size and operation to a unit for which an optimization study has already been completed and approved, and request that the results of the earlier study be applied to the equivalent unit(s). The Department shall review the optimization study and revise the NO<sub>x</sub> emission limit as the Department determines is appropriate so as to reflect optimized performance of the system as indicated by the SNCR percent NO<sub>x</sub> reduction for the various operating conditions tested. The Department will include a margin of up to twenty percent (20%) to provide for excess emissions over an averaging period adequate to reflect the variability of the operating parameters the Department determines have the dominant impact on emission rates. Prior to initiating the study, ADM shall submit a detailed study plan for the IDNR approval including the specific dates of the optimization study and the boiler operation conditions to be tested. The optimization study shall monitor and record, but not limited to, the following items:
  - 1) reagent injection rates,
  - 2) boiler NO<sub>x</sub> prior to injection,
  - 3) reagent injection to boiler NO<sub>x</sub> ratios,
  - 4) boiler temperature,
  - 5) CO, SO<sub>2</sub>, and chlorine levels prior to injection,
  - 6) boiler load in MMBtu/hr and percent of rated capacity,
  - 7) steam generation rate,
  - 8) bed calcium to sulfur ratios,
  - 9) fuel type, percent ash and percent sulfur,
  - 10) NO<sub>x</sub> emission rate,
  - 11) SNCR NO<sub>x</sub> emission reduction in percent,
  - 12) ammonia emission rates, and
  - 13) opacity.

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D. This information shall be collected or calculated hourly during the study unless otherwise specified in the detailed study plan to be submitted by ADM as approved by the IDNR. In addition, at least three separate visible emission tests shall be conducted for each set of operation/injection conditions identified for the study. Within one year after beginning operation, the optimization study data and report shall be submitted to the IDNR.

- E. ADM shall also submit a summary of study activities with the Quarterly CEM reports covering the same time period as the CEM report.
- F. The owner shall furnish the IDNR written reports as follows:
  - 1) Initial Compliance Demonstration Reports required in Condition 13 [of PSD permit #86-A-091-P1].
  - 2) CEMS performance evaluation.
  - 3) The maximum heat input capacity data from the demonstration of the boiler's maximum heat input capacity.
  - 4) The owner shall submit a written emissions report to the IDNR central office each calendar quarter. Reports shall be submitted to the IDNR postmarked no later than 30 days after the end of the calendar quarter starting with the quarter in which initial startup of the boiler occurs. The report shall include the following:
    - a. Calendar dates covered by the report,
    - b. Dates and hours of startup, shutdown or malfunction,
    - c. Type, quality and quantity of fuel combusted,
    - d. Each hourly SO<sub>2</sub> and NO<sub>x</sub> emissions, a summary of excess opacity emissions and diluent gas emission rate as well as each operating day's 30-day average SO<sub>2</sub> and NO<sub>x</sub>. Emission rate and percent SO<sub>2</sub> reduction determined during the reporting period,
    - e. Each instance of excess emissions and of non-standard or manual data collection and how those data were collected. Where data was excluded, exceeded full span of the CEMS or was not available for any other reason, together with reasons for each of these instances of noncompliance and a description of the corrective actions taken, and any statistics required pursuant to 40 CFR §60.49b(m),
    - f. "F" factor, method of determination and fuel description,
    - g. Description of any modification to the CEMS and its potential effect on CEMS performance,
    - h. Results of daily CEMS drift test and quarterly accuracy assessments and related data as required under 40 CFR Part 60 Appendix F,
    - i. Coal sampling and analysis results,
    - j. Lead (Pb) quarterly test results.
- G. The owner or operator shall record the amounts of each fuel combusted during each day and calculate a new annual capacity factor for each fuel type at the end of each calendar month as specified in 40 CFR §60.49b(d).
- H. The owner or operator shall record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually according to 40 CFR §60.49b(d).
- I. The owner or operator shall record the net actual electrical output to any utility power distribution system for sale annually, calculated as an average over any three (3) calendar year period.
- J. The owner or operator shall furnish the IDNR with final detailed plans and specifications for all emission control equipment selected by the owner to meet the emission limits contained in **Tables Co-Gen 10, 11, 12, 13, and 14**. This information shall be submitted to the IDNR at least 30 days in advance of construction of any control equipment.

#### **Operating Condition Monitoring**

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 periods of startup, shutdown, or malfunction. Operating hours shall be averaged on a 12-month basis rolled over monthly.
- B. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month as specified in 40 CFR §60.49b(d).
- C. The owner or operator shall maintain records of the net actual electrical output to any utility power distribution system for sale annually, calculated as an average over any three (3) calendar year period.

Authority for Requirement: DNR Permit #86-A-090P1

DNR Permit #86-A-091P1

### **Continuous Emission Monitoring:**

The owner or operator shall continuously demonstrate compliance with the SO<sub>2</sub> and NO<sub>X</sub> emission limitations and SO<sub>2</sub> percent reduction requirements of this permit, in part, through the use of continuous emission monitoring systems (CEMS). The owner shall install, calibrate, operate, maintain, audit, and record the output from CEMS capable of measuring SO<sub>2</sub>, NO<sub>X</sub>, and the appropriate diluent gas (oxygen or carbon dioxide). The CEMS shall be installed, calibrated, operated, maintained and audited, and data recorded in accordance with the provisions found at 40 CFR §60.13 (Monitoring Requirements), 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3 (Specification and Test Procedures for SO<sub>2</sub>, NO<sub>X</sub>, and diluent CEMS), and 40 CFR Part 60, Appendix F (Quality Assurance Requirements for Gas CEMS Used for Compliance Determinations).

The CEMS shall be operated and data recorded during any period any fuel is combusted in the boilers. Hourly parts-per-million data recorded by the pollutant CEMS shall be converted to lb-pollutant per million Btus (lb/MMBtus) heat input using the equations and methodology specified in 40 CFR Part 60, Appendix A, Method 19 (as it appears in the July 1, 1992, Code of Federal Regulations). Hourly emission rate data shall be recorded and used by the owner or operator to calculate compliance with the applicable emission rates and percent reductions for the specified averaging times.

The owner or operator shall also install, operate, and maintain a fuel sampling and analysis (FSA) system to collect "as fired" fuel data. The FSA system shall meet or exceed the design and performance specifications set forth in 40 CFR Part 60, Appendix A, Method 19 (incorporating by reference of ASTM Method D2234-76, et al.). As specified by Method 19, at least a minimum number of sample increments shall be collected at a location immediately preceding each day bunker, composited, and analyzed daily. Coal analyses shall be conducted for weight percent sulfur (%S) and gross heat value (GHV, expressed in BTUs/lb-coal).

The owner may develop an in-house coal analysis program or may send collected samples to a laboratory for analysis. In either case, the analytical results shall be available to the proposed boiler operator within 72 hours of the sample collection time.

The "as fired" fuel data shall be used in conjunction with the SO<sub>2</sub> CEMS emission rate data to determine compliance with the SO<sub>2</sub> 30-day rolling percent reduction limit.

The owner shall calculate an equivalent SO<sub>2</sub> rate for each bunker using the weight percent sulfur and the gross heating value obtained through daily FSA, using the following equation:

Equivalent 
$$SO_2$$
 Inlet Rate of Individual Bunker =  $\frac{\%S}{GHV} * K$ 

Where K = 20,000 (lb\*Btu) / (%\*MMBtu)

If the equivalent inlet SO<sub>2</sub> rates for coal contained in each day bunker which feeds to a single boiler differ by 0.2 lb SO<sub>2</sub> /MMBtu heat input or less, the arithmetic average of the two equivalent SO<sub>2</sub> inlet rates shall be used as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operation day.

Otherwise, the owner shall: (1) use the smaller of the two equivalent SO<sub>2</sub> inlet rates as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operating day or (2) calculate an "equivalent hourly average SO<sub>2</sub> inlet rate" for each hour of operation using the following heat input weighted equation.

Equivalent Hourly Average 
$$SO_2$$
 Inlet Rate =  $\frac{(W_1 * \%S_1) + (W_2 * \%S_2)}{(W_1 * GHV_1) + (W_2 * GHV_2)} * K$ 

 $W_1$  = Tons of coal fed to first of paired day bunkers during hour

 $W_2$  = Tons of coal fed to second of paired day bunkers during hour

 $%S_1$  = Weight percent sulfur of coal contained in first bunker

 $%S_2$  = Weight percent sulfur of coal contained in second bunker

 $GHV_1$  = Gross heating value of coal contained in first bunker

 $GHV_2$  = Gross heating value of coal contained in second bunker

K = 20,000 (lb\*Btu) / (%\*MMBtu)

The existing continuous monitoring system for measuring the opacity of emissions discharged into the atmosphere shall be operated, and maintained during all periods of operation of the boiler except for continuous monitoring system breakdowns and repairs. Operation shall be in conformance with 40 CFR §60.48b which includes recording the output of the system. Reporting and recordkeeping requirements shall be in conformance with 40 CFR §60.49b which shall include filing a quarterly report of excess emissions as outlined therein.

Authority for Requirement: DNR Permit #86-A-090P1 DNR Permit #86-A-091P1

# **Continuous Emission Monitoring and Fuel Sampling Analysis:**

For CFBC Boiler #4 and for SO<sub>2</sub> emissions from CFBC Boilers #1, 2, 3:

A. SO<sub>2</sub> and NO<sub>x</sub>.

The owner shall continuously demonstrate compliance with the SO<sub>2</sub> and NO<sub>X</sub> emission limitations and SO<sub>2</sub> percent reduction requirements of this permit through the use of a continuous emission monitoring system (CEMS) and a fuel sampling and analysis (FSA) system. These

systems shall be installed, operating and calibrated prior to beginning the initial compliance demonstration set forth in ["Compliance Demonstrations" of SEP-502] according to 40 CFR §60.13.

In the case where a CEMS is to be used as the test method for demonstrating compliance, the performance certification report shall be submitted to IDNR prior to initiating the facility compliance testing.

Compliance with the SO<sub>2</sub> and NO<sub>X</sub> emission rate limitations and the SO<sub>2</sub> percent reduction requirements shall be calculated as the average of all valid hourly emission rate data and valid hourly SO<sub>2</sub> percent reduction data for the 30 previous boiler operating days during which each standard applies. The owner shall calculate a new 30-day average at the end of each boiler operating day.

Unless otherwise approved by the Department, the selection of the CEMS span value (maximum data display output) for each parameter shall be those specified in Subpart Db of the Code of Federal Regulations.

In addition to the provisions of 40 CFR Part 60, Appendix B, the performance specifications applicable to the CEMS required by the permit shall include a data recovery requirement of 90% and shall meet precision and accuracy requirements of 10 percent and 10 percent of the applicable standard respective, unless otherwise specified in the permit. When the minimum data requirements of the permit cannot be obtained, the methods and procedures of 40 CFR 60.47b(c) and 60.48b(F) shall be employed by the owner to obtain the required data.

# 1. 30-Day Rolling NOx and SO<sub>2</sub> Emission Rate Compliance

The owner shall install, calibrate, operate, maintain, audit, and record the output from CEMS capable of measuring SO<sub>2</sub>, NO<sub>x</sub>, and the appropriate diluent gas (oxygen or carbon dioxide). The CEMS shall be installed, calibrated, operated, maintained, and audited. Data shall be recorded in accordance with the provisions found at 40 CFR §60.13 [Monitoring Requirements]; 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3 [Specification and Test Procedures for SO<sub>2</sub>, NO<sub>x</sub>, and diluent CEMS]; and 40 CFR Part 60, Appendix F [Quality Assurance Requirements for Gas CEMS Used for Compliance Determinations], as adopted by the Department by reference.

The CEMS shall be operated and data recorded during any period any fuel is combusted in the boiler. Hourly parts-per-million data recorded by the pollutant CEMS shall be converted to pound of pollutant per million Btu (lb/MMBtu) heat input using the equations and methodology specified in 40 CFR Part 60, Appendix A, Method 19 (as it appears in the July 1, 1992, Code of Federal Regulations). Hourly emission rate data shall be recorded and used by the owner/operator to calculate compliance with the applicable emission rates and percent reductions for the specified averaging times.

The owner shall successfully complete SO<sub>2</sub> and NO<sub>X</sub> CEMS performance evaluations including relative accuracy and calibration drift assessment evaluations prior to beginning the initial compliance demonstration.

The owner shall notify the DNR central office at least 30 days in advance of conducting any relative accuracy test.

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#### 2. SO<sub>2</sub> Percent Reduction Compliance

The owner shall install, calibrate, operate, and maintain a fuel sampling and analysis (FSA) system to collect "as-fired" fuel data. The FSA system shall meet or exceed the design and performance specifications set forth in 40 CFR Part 60, Appendix A, Method 19 (incorporating by reference of ASTM Method D2234-76, et al.).

Analyses shall be performed for weight percent sulfur (%S) and gross heat value (GHV, expressed in Btu/lb-coal). The owner may develop an in-house coal analysis program or may send collected samples to a laboratory for analysis. In either case, the analytical results shall be available to the proposed boiler operator within 72 hours of the sample collection time.

The "as-fired" fuel data shall be used to determine the equivalent hourly average SO<sub>2</sub> inlet rate to the boiler, and shall be used in conjunction with the SO<sub>2</sub> CEMS emission rate data to determine compliance with the SO<sub>2</sub> 30-day rolling percent reduction limit.

The owner shall calculate an equivalent SO<sub>2</sub> rate for each bunker using the weight percent sulfur and the gross heating value obtained through daily FSA, using the following equation:

Equivalent 
$$SO_2$$
 Inlet Rate of Individual Bunker =  $\frac{\%S}{GHV} * K$ 

Where K = 20,000 (lb\*Btu)/(%\*MMBtu)

If the equivalent inlet SO<sub>2</sub> rates for coal contained in each day bunker which feeds to a single boiler differ by 0.2 lb SO<sub>2</sub>/MMBtu heat input or less, the arithmetic average of the two equivalent SO<sub>2</sub> inlet rates shall be used as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operation day.

Otherwise, the owner shall: (1) use the smaller of the two equivalent SO<sub>2</sub> inlet rates as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operating day; or (2) calculate an "equivalent hourly average SO<sub>2</sub> inlet rate" for each hour of operation using the following heat input weighted equation.

Equivalent Hourly Average 
$$SO_2$$
 Inlet Rate = 
$$\frac{(W_1 * \%S_1) + (W_2 * \%S_2)}{(W_1 * GHV_1) + (W_2 * GHV_2)} * K$$

 $W_1$  = Tons of coal fed to first of paired day bunkers during hour

 $W_2$  = Tons of coal fed to second of paired day bunkers during hour

 $%S_1$  = Weight percent sulfur of coal contained in first bunker

 $%S_2$  = Weight percent sulfur of coal contained in second bunker

 $GHV_1 = Gross$  heating value of coal contained in first bunker

 $GHV_2 = Gross$  heating value of coal contained in second bunker

K = 20,000 (lb\*Btu) / (%\*MMBtu)

#### B. Particulate $(PM_{10})$

The existing continuous monitoring system for measuring the opacity of emissions discharged into the atmosphere shall be operated, and maintained during all periods of operation of the boiler except for continuous monitoring system breakdowns and repairs. Operation shall be in conformance with 40 CFR §60.48b which includes recording the output of the system. Reporting and recordkeeping requirements shall be in conformance with 40 CFR §60.49b which shall include filing a quarterly report of excess emissions as outlined therein.

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#### C. Lead (Pb) and Beryllium (Be)

Coal samples shall be analyzed for Lead (Pb) and Beryllium (Be) and the results submitted in writing to the IDNR on a quarterly basis. Fuel Sampling shall be conducted as specified in Condition A.2 above. Sample Analysis for Lead (Pb) and Beryllium (Be) shall be performed as specified in SW-846 Method 6010. The test results shall be reported as specified below.

The owner shall submit a written emissions report to the IDNR central office each calendar quarter. Reports shall be submitted to the IDNR postmarked no later than 30 days after the end of the calendar quarter starting with the quarter in which initial startup of the boiler occurs. The report shall include the following:

- Calendar dates covered by the report,
- Dates and hours of startup, shutdown or malfunction,
- Type, quality and quantity of fuel combusted,
- Each hourly SO<sub>2</sub>, NOx, opacity and diluent gas emission rate as well as each operating day's 30-day average SO<sub>2</sub>, and NOx emission rate and percent SO<sub>2</sub>, reduction determined during the reporting period,
- Each instance of excess emissions, and of non-standard or manual data collection and how those data were collected. Where data was excluded, exceeded full span of the CEMS or was not available for any other reason, together with reasons for each of these instances of noncompliance and a description of the corrective actions taken, and any statistics required pursuant to 40 CFR §60.49b(m),
- "F" factor, method of determination and fuel description,
- Description of any modification to the CEMS and its potential effect on CEMS performance,
- Results of daily CEMS drift test and quarterly accuracy assessments and related data as required under 40 CFR Part 60 Appendix F,
- Coal sampling and analysis results,
- PM<sub>10</sub>, Lead (Pb) and Beryllium (Be) quarterly test results.

All data, records, reports, documentation, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives for a minimum of five (5) years from the date of recording.

Authority for Requirement: DNR PSD Permit 93-A-324-S1

## **Operating Condition Monitoring:**

For CFBC Boilers #1, 2, 3 and 4, the owner shall maintain a record of periods of startup, shutdown or malfunction. Operating hours shall be averaged on a 12-month basis rolled over monthly.

Authority for Requirement: DNR PSD Permit #93-A-324-S1

#### **NSPS General Requirements:**

These boilers are subject to 40 CFR Part 60 NSPS Subpart Db, Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units.

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control

equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. 40 CFR §60.7(b)

The permittee shall submit an excess emissions and monitoring systems performance report to the Department and Administrator in accordance with 40 CFR §60.7(c). The summary report form shall contain the information and format required in 40 CFR §60.7(d).

Notwithstanding the frequency of reporting requirements in the prior permit conditions, the permittee may reduce the frequency of reporting of excess emissions and monitoring system performance reports pursuant to 40 CFR §60.7(e).

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR §60.12

Authority for Requirement: 567 IAC 23.1(2)

#### **Existing Large Solid Fuel Subcategory:**

These emission units are subject to 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 DDDDD – NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR §63.7480 through 40 CFR §63.7575).

Authority for requirement: NESHAP Subpart A

**NESHAP Subpart DDDDD** 

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 350 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 138 Exhaust Temperature (°F): 358°F

Exhaust Flow Rate (acfm): 403,000 (combined Boilers #1 and #2)

Authority for Requirement: DNR PSD Permit #86-A-090P1

DNR PSD Permit #86-A-091P1 LCPH ATI 6131 / PTO 6267

The temperature and flow rate 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 flow rate above are different than the values stated, the owner or operator shall

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

<u>Monitoring Requirements</u>

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

# **Stack Testing:**

Stack testing is not required at this time.

**Continuous Emissions Monitoring:** 

Pollutant:	Nitrogen Oxides (NO <sub>X</sub> )
Continuous Emissions Monitor ID:	ME-501A for Boiler #1
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 4, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Nitrogen Oxides (NO <sub>X</sub> )
Continuous Emissions Monitor ID:	ME-501B for Boiler #2
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 4, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc"
	LCO 10.9(2)"a"(55)

Pollutant:	Opacity
Continuous Emissions Monitor ID:	ME-501C for Boilers #1 and #2
Operational Specifications:	40 CFR §60.13 and 40 CFR §60.45
Date of Most Recent System Calibration & Quality Assurance:	March 2, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix B
Authority for Requirement:	DNR PSD Permit #86-A-090 DNR PSD Permit #86-A-091 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Sulfur Dioxide (SO <sub>2</sub> )
Continuous Emissions Monitor ID:	ME-501F for Boiler #1
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 4, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Sulfur Dioxide (SO <sub>2</sub> )
Continuous Emissions Monitor ID:	ME-501G for Boiler #2
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 4, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

# **Other Parameters:**

Pollutant:	Diluent Gas (Oxygen)	
Continuous Emissions Monitor ID:	ME-501D for Boiler #1	
Operational Specifications:	40 CFR Part 60	
Date of Most Recent System Calibration & Quality Assurance:	May 4, 2016	
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F	
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B	
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)	

Pollutant:	Diluent Gas (Oxygen)	
Continuous Emissions Monitor ID:	ME-501E for Boiler #2	
Operational Specifications:	40 CFR Part 60	
Date of Most Recent System Calibration & Quality Assurance:	May 4, 2016	
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F	
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B	
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)	

Pollutant:	Flow	
Continuous Emissions Monitor ID:	ME-501H for Boiler #1 and #2	
Operational Specifications:	40 CFR Part 60	
Date of Most Recent System Calibration & Quality Assurance:	February 23, 2016	
Ongoing System Calibration/Quality Assurance:	40 CFR 60, Appendix F	
Reporting & Recordkeeping:	40 CFR 60, Appendix B	
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)	

Pollutant:	Diluent Gas (Carbon Dioxide)
Continuous Emissions Monitor ID:	ME-501I for Boiler #1 and #2
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	February 23, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR 60, Appendix F
Reporting & Recordkeeping:	40 CFR 60, Appendix B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

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 ⊠¹ No □

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

The SO<sub>2</sub> and NO<sub>X</sub> potentials to emit trigger Agency-approved operation & maintenance plans; however, existing CEMS at this emission point meet or exceed the Agency-approved operation & maintenance plan requirements for these pollutants.

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring is required for PM<sub>10</sub> and an agency-approved operation and maintenance plan is technically required for PM; however, as PM and PM<sub>10</sub> are controlled by the same equipment, and CAM is more stringent, the separate agency-approved operation and maintenance plan requirement is waived.

**Emission Point ID Number: SEP-502** 

**Process Area: COGENERATION** 

**Table Co-Gen 15. Emission Point Description.** 

			Raw Material/	
EP	EU	EU Description	Fuel	Rated Capacity
SEP-502	EU-502A	Co-Gen Boiler #3	Coal	551.50 MMBtu/hr
SEP-502	EU-502AN	Co-Gen Boiler #3	Natural Gas	0.22 MMCF/hr
SEP-502	EU-502AF	Co-Gen Boiler #3	er #3 Fuel Oil	
SEP-502	EU-502B	Co-Gen Boiler #4	Coal	551.50 MMBtu/hr
SEP-502	EU-502BN	Co-Gen Boiler #4	Natural Gas	0.22 MMCF/hr
SEP-502	EU-502BF	Co-Gen Boiler #4	Fuel Oil.	

Table Co-Gen 16. Associated Equipment.

EP	EU	CE ID	CE Description	ME ID
SEP-502	EU-502A	CE-502A	Co-gen Boiler #3 Baghouse	ME-502A, ME-502C,
		CE-502D	Limestone Injection	ME-502D, ME-502F,
			SNCR	ME-502H, ME-502I
SEP-502	EU-502AN	CE-502A	Co-gen Boiler #3 Baghouse	ME-502A, ME-502C,
		CE-502D	Limestone Injection	ME-502D, ME-502F,
			SNCR	ME-502H, ME-502I
SEP-502	EU-502B	CE-502B	Co-gen Boiler #4 Baghouse	ME-502B, ME-502C,
		CE-502C	SNCR	ME-502E, ME-502G,
		CE-502E	Limestone Injection	ME-502H, ME-502I
SEP-502	EU-502BN	CE-502B	Co-gen Boiler #4 Baghouse	ME-502B, ME-502C,
		CE-502C	SNCR	ME-502E, ME-502G,
		CE-502E	Limestone Injection	ME-502H, ME-502I

# **Applicable Requirements**

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

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

Table Co-Gen 17. Opacity Emission Limits.

EP	EU	Opacity	Authority for Requirement
SEP-502	EU-502A,	20%, 6-minute average <sup>1</sup>	40 CFR §60.43b(f) Subpart Db
	EU-502AN,	except for one 6-minute	40 CFR §60.46b(a) Subpart Db
	EU-502B,	period per hour of not more	567 IAC 23.1(2)"ccc"
	EU-502BN	than 27%	LCO 10.9(2)"a"(55)
SEP-502	EU-502B,	20%, 6-minute average <sup>1</sup>	LCPH ATI 6132 / PTO 6268
	EU-502BN		DNR PSD Permit #93-A-324-S1
SEP-502	EU-502A,	20%	DNR PSD Permit #90-A-083P1
	EU-502AN,		LCPH ATI 6132 / PTO 6268
	EU-502B,		LCO 10.7
	EU-502BN		

Table Co-Gen 18. Particulate Matter Emission Limits.

			Particulate	
EP	EU	PM <sub>10</sub>	Matter	Authority for Requirement
SEP-502	EU-502A		0.10	40 CFR §60.42b(a)(2) Subpart Db
	EU-502AN		lb/MMBtu	567 IAC 23.1(2)"ccc"
				LCO 10.9(2)"a"(55)
SEP-502	EU-502AN	0.03	0.03	DNR Permit #90-A-083P1
		lb/MMBtu	lb/MMBtu	
SEP-502	EU-502B,		0.051	40 CFR §60.43b(a)(1) Subpart Db
	EU-502BN		lb/MMBtu	40 CFR §60.46b(a) Subpart Db
				567 IAC 23.1(2)"ccc"
				LCO 10.9(2)"a"(55)
SEP-502	EU-502B,	0.03		DNR PSD Permit #93-A-324-S1
	EU-502BN	lb/MMBtu,		
		3-hour average		
SEP-502	EU-502A,		16.55 lb/hr <sup>1</sup>	LCPH ATI 6132 / PTO 6268
	EU-502AN,			
	EU-502B,			
	EU-502BN			

Table Co-Gen 19. Sulfur Dioxide (SO<sub>2</sub>) Emission Limits.

EP	EU	Sulfur Dioxide (SO <sub>2</sub> )	Authority for Requirement
SEP-502	EU-502A,	248.2 lb/hr <sup>2</sup> , 90% reduction <sup>2,5</sup>	LCPH ATI 6232 / PTO 6268
	EU-502AN,		
	EU-502B,		
	EU-502BN		
For coal	supplies (or co	al blends) which have an equivalent	inlet SO <sub>2</sub> rate <sup>3</sup> greater than 2.0
lb/MMBt		,	S
SEP-502	EU-502A,	0.45 lb/MMBtu,	DNR PSD Permit
	EU-502AN	30-day rolling average <sup>2,6</sup>	#90-A-083P1
		90% reduction of equivalent inlet	
		$SO_2$ emission rate <sup>2,5,6</sup> ,	
		30-day average	
For coal	supplies (or co	al blends) which have an equivalent	inlet SO <sub>2</sub> rate <sup>3</sup> less than or
equal to 2	2.0 lb/MMBtu:	, <u>-</u>	
SEP-502	EU-502A,	0.20 lb/MMBtu,	DNR PSD Permit
	EU-502AN	30-day rolling average <sup>2,7</sup>	#90-A-083P1
Other sta	ndards:		
SEP-502	EU-502A,	0.94 lb/MMBtu,	DNR PSD Permit
	EU-502AN	3-hour rolling average <sup>8</sup>	#90-A-083P1
SEP-502	EU-502B,	0.94 lb/MMBtu, 3-hour average <sup>9</sup>	DNR PSD Permit
	,	, ,	1

EP	EU	Sulfur Dioxide (SO <sub>2</sub> )	Authority for Requirement
SEP-502	EU-502A,	1.2 lb/MMBtu	40 CFR §60.42b(a), (e), (g),
	EU-502AN,	90% reduction of equivalent inlet	Subpart Db
	EU-502B,	SO <sub>2</sub> rate, 30-day rolling average	40 CFR §60.45b(a) Subpart Db
	EU-502BN		567 IAC 23.1(2)"ccc"
			LCO 10.9(2)"a"(55)
SEP-502	EU-502B,	0.45 lb/MMBtu,	DNR PSD Permit
	EU-502BN	30 day rolling average <sup>5</sup> ,	#93-A-324-S1
		90% reduction in the equivalent inlet	
		SO <sub>2</sub> emission rate	
SEP-502	EU-502B,	0.45 lb/MMBtu,	LCPH ATI 6132 / PTO 6268
	EU-502BN	30-day rolling average <sup>5</sup>	DNR PSD Permit
			#93-A-324-S1
SEP-502	EU-502A,	1.5 lb/MMBtu when burning	LCO 10.12(1)"b"
	EU-502AN,	liquid fuel	
	EU-502B,		
	EU-502BN		
SEP-502	EU-502A,	5 lb/MMBtu, 2-hour rolling average,	LCO 10.12(1)"a"
	EU-502AN,	when burning solid fuel	
	EU-502B,		
	EU-502BN		
SEP-502	EU-502A,	500 ppmv	567 IAC 23.3(3)"e"
	EU-502AN,		
	EU-502B,		
	EU-502BN		

Table Co-Gen 20. Nitrogen Oxides and Carbon Monoxide Emission Limits.

Table Co-G	able Co-Gen 20. Titti ogen Oxides and Carbon Monoxide Emission Emits.						
EP	EU	NO <sub>x</sub>	CO	Authority for Requirement			
SEP-502	EU-502A,	TBD <sup>1,3,4</sup>	0.2 lb/MMBtu,	DNR PSD Permit #90-A-083P1			
	EU-502AN		3-hour average <sup>8</sup>				
SEP-502	EU-502B,	0.07 lb/MMBtu,	0.2 lb/MMBtu,	LCPH ATI 6132 / PTO 6268			
	EU-502BN	30-day rolling	3-hour average <sup>8</sup>	DNR PSD Permit #93-A-324-S1			
SEP-502	EU-502A,		110.3 lb/hr <sup>1</sup>	LCPH ATI 6163 / PTO 6268			
	EU-502AN,						
	EU-502B,						
	EU-502BN						

# Table Co-Gen 21. Other Emission Limits.

EP	EU	Fluorides	Lead	Beryllium	Authority for Requirement
SEP-502	EU-502A,	0.75	$<1.24 \times 10^{-4}$	<8.28x10 <sup>-8</sup>	DNR PSD Permit
	EU-502AN	lb/hr <sup>1</sup> ,	lb/MMBtu,	lb/MMBtu,	#90-A-083P1
		3-hour	0.068 lb/hr <sup>1</sup>	$<4.57 \times 10^{-5} \text{ lb/hr}^1$	
		average <sup>8</sup>			

					Authority for
EP	EU	Fluorides	Lead	Beryllium	Requirement
SEP-502	EU-502B,	0.75 lb/hr,	2.28x10 <sup>-4</sup>	$1.53 \times 10^{-7}$	Iowa PSD Permit
	EU-502BN	3 tpy,	lb/MMBtu	lb/MMBtu	#93-A-324-S1
		3-hour	3-month	12-month rolling	
		average	average,	average,	
			0.55 tpy	0.000368 tpy	
SEP-502	EU-502A,	0.75 lb/hr <sup>1</sup>	0.07 lb/hr <sup>1</sup>	8.4x10 <sup>-5</sup> lb/hr <sup>1</sup>	LCPH ATI 6163 /
	EU-502AN,				PTO 6268
	EU-502B,				
	EU-502BN				

Table Co-Gen 22. Volatile Organic Compound (VOC) Emission Limits.

EP	EU	VOC	<b>Authority for Requirement</b>
SEP-502	EU-502A,	1.45 lb/hr <sup>1</sup>	LCPH ATI 6232 / PTO 6268
	EU-502AN,		
	EU-502B,		
	EU-502BN		

Standard is expressed as the average of three (3) runs.

# **Operational Limits & Requirements**

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

#### **Control Device:**

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A baghouse shall be installed to control particulate matter emissions from Boiler #3 and Boiler #4. A Selective Non-Catalytic Reduction (SNCR) system shall be installed to control NOx

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<sup>&</sup>lt;sup>2</sup> Standard is a 30-day rolling average.

<sup>&</sup>lt;sup>3</sup> This emission limit is waived for the specific SNCR optimization study activity as detailed in Operating Limits item C not to extend more than 365 days after the SNCR modifications have been completed.

<sup>&</sup>lt;sup>4</sup> This standard is a 30-day rolling average that includes all periods of operation except for cold startup periods. A cold startup period is defined as that period of time when a coal-fired cogen boiler is proceeding to increase the temperature in the lower combustor from less than 400° F to at least 1,500° F. This period shall last no more than forty-eight (48) hours and NO<sub>x</sub> emissions data from this period shall be excluded when determining compliance with the permitted emission limit. Ammonia injection shall begin as soon as the lower combustor temperature reaches 1,500° F and the cold startup period will end at this time. All data from cold startup periods after the first forty-eight (48) hours, or while ammonia is injected in the boiler, will be included in determining compliance with the optimized limit.

<sup>&</sup>lt;sup>5</sup> The equivalent inlet SO<sub>2</sub> emission rate means the stack emissions (on a lb/MMBtu heat input basis) that would result from the combustion of "as fired" coal in the boiler without SO<sub>2</sub> absorption, assuming 100% conversion of sulfur in the coal to SO<sub>2</sub>.

<sup>&</sup>lt;sup>6</sup> When SO<sub>2</sub> inlet > 2.0 lb/MMBtu.

<sup>&</sup>lt;sup>7</sup> When SO<sub>2</sub> inlet < 2.0 lb/MMBtu.

<sup>&</sup>lt;sup>8</sup> Standard is a 3-hour rolling average.

<sup>&</sup>lt;sup>9</sup> This limit is effective on and after the date the 30-day SO<sub>2</sub> compliance demonstration is completed.

emissions on Boiler #3 and Boiler #4. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained, and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6132 / PTO 6268

# **Operating Limits:**

Operating limits for this emission source are:

- A. The fuel combusted shall be limited to gas (for startup), oil (for startup), and coal.
- B. The owner or operator must receive an approval from the IDNR central office before a fuel other than specified above is combusted in the boilers. The IDNR shall reevaluate the fuel and may impose best available control technology (BACT) emission standards (including a percent reduction requirement) for the fuel type (or combination) in question. Other PSD-related procedures (e.g., dispersion modeling studies) may also be required.
- C. The owner/operator shall conduct a study on the boiler to determine the optimized performance of the SNCR system within one year after the startup date. The Department shall review the optimization study and revise the NOx emission limit as the Department determines is appropriate so as to reflect optimized performance of the SNCR system as indicated by the SNCR percent NOx reduction for the various operating conditions tested. The Department will include a margin of up to twenty percent (20%) to provide for excess emissions over an averaging period adequate to reflect the variability of the operating parameters the Department determines have the dominant impact on emission rates. Prior to initiating the study, ADM shall submit a detailed study plan for the IDNR approval, including the specific dates of the optimization study and the boiler operation conditions to be tested. The optimization shall monitor and record, but not limited to, the following items:
  - 1) reagent injection rates,
  - 2) boiler NO<sub>x</sub> prior to injection,
  - 3) reagent injection to boiler NO<sub>x</sub> ratios,
  - 4) boiler temperature,
  - 5) CO, SO<sub>2</sub>, and chlorine levels prior to injection,
  - 6) boiler load in MMBtu/hr and percent of rated capacity,
  - 7) steam generation rate,
  - 8) bed calcium to sulfur ratios,
  - 9) fuel type, percent ash and percent sulfur,
  - 10)  $NO_x$  emission rate,
  - 11) SNCR NO<sub>x</sub> emission reduction in percent,
  - 12) ammonia emission rates, and
  - 13) opacity.

This information shall be collected or calculated hourly during the study unless otherwise specified in the detailed study plan to be submitted by ADM as approved by the IDNR. In addition, at least three separate visible emission tests shall be conducted for each set of operation/injection conditions identified for the study.

- D. Within one year after beginning operation, the optimization study data and report shall be submitted to the IDNR.
- E. ADM shall also submit a summary of study activities with the Quarterly CEM reports covering the same time period as the CEM report.
- F. The owner shall furnish the IDNR written reports as follows:
  - 1) Initial Compliance Demonstration Reports required in Condition 13 [of PSD permit #93-A-083P1].
  - 2) CEMS performance evaluation.
  - 3) The maximum heat input capacity data from the demonstration of the boiler's maximum heat input capacity.
  - 4) The owner shall submit a written emissions report to the IDNR central office each calendar quarter. Reports shall be submitted to the IDNR postmarked no later than 30 days after the end of the calendar quarter starting with the quarter in which initial startup of the boiler occurs. The report shall include the following:
    - a. Calendar dates covered by the report,
    - b. Dates and hours of startup, shutdown or malfunction,
    - c. Type, quality and quantity of fuel combusted,
    - d. Each hourly SO<sub>2</sub> and NO<sub>x</sub> emissions, a summary of excess opacity emissions and diluent gas emission rate as well as each operating day's 30-day average SO<sub>2</sub> and NO<sub>x</sub>. Emission rate and percent SO<sub>2</sub> reduction determined during the reporting period,
    - e. Each instance of excess emissions and of non-standard or manual data collection and how those data were collected. Where data was excluded, exceeded full span of the CEMS or was not available for any other reason, together with reasons for each of these instances of noncompliance and a description of the corrective actions taken, and any statistics required pursuant to 40 CFR §60.49b(m),
    - f. "F" factor, method of determination and fuel description,
    - g. Description of any modification to the CEMS and its potential effect on CEMS performance,
    - h. Results of daily CEMS drift test and quarterly accuracy assessments and related data as required under 40 CFR Part 60 Appendix F,
    - i. Coal sampling and analysis results,
    - j. Lead (Pb) quarterly test results.
- G. The owner or operator shall record the amounts of each fuel combusted during each day and calculate a new annual capacity factor for each fuel type at the end of each calendar month as specified in 40 CFR §60.49b(d).
- H. The owner or operator shall record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually according to 40 CFR §60.49b (d).
- I. The owner or operator shall record the net actual electrical output to any utility power distribution system for sale annually, calculated as an average over any three (3) calendar year period.
- J. The owner or operator shall furnish the IDNR with final detailed plans and specifications for all emission control equipment selected by the owner to meet the emission limits

contained in Condition 10. This information shall be submitted to the IDNR at least 30 days in advance of construction of any control equipment.

Authority for Requirement: DNR PSD Permit #90-A-083P1

For CFBC Boilers #1, 2, 3 and 4, the owner shall maintain a record of periods of startup, shutdown or malfunction. Operating hours shall be averaged on a 12-month basis rolled over monthly.

Authority for Requirement: DNR PSD Permit #93-A-324-S1

# **Operating Condition Monitoring:**

- A. 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. These records shall show the following:
- B. The owner or operator shall maintain a record of periods of startup, shutdown, or malfunction. Operating hours shall be averaged on a 12-month basis rolled over monthly.
- C. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month as specified in 40 CFR §60.49b(d).
- D. The owner or operator shall maintain records of the net actual electrical output to any utility power distribution system for sale annually, calculated as an average over any three (3) calendar year period.

Authority for Requirement: DNR PSD Permit #90-A-083P1

#### **Continuous Emission Monitoring:**

The owner or operator shall continuously demonstrate compliance with the SO<sub>2</sub> and NO<sub>X</sub> emission limitations and SO<sub>2</sub> percent reduction requirements of this permit, in part, through the use of continuous emission monitoring systems (CEMS). The owner shall install, calibrate, operate, maintain, audit, and record the output from CEMSa continuous emission monitoring system (CEMS) capable of measuring SO<sub>2</sub>, NO<sub>X</sub>, and the appropriate diluent gas (oxygen or carbon dioxide). The CEMS shall be installed, calibrated, operated, maintained and audited, and data recorded in accordance with the provisions found at 40 CFR §60.13 (Monitoring Requirements); 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3 (Specification and Test Procedures for SO<sub>2</sub>, NO<sub>X</sub>, and diluent CEMS), and 40 CFR Part 60, Appendix F (Quality Assurance Requirements for Gas CEMS Used for Compliance Determinations).

The CEMS shall be operated and data recorded during any period any fuel is combusted in the boilers. Hourly parts-per-million data recorded by the pollutant CEMS shall be converted to lb-pollutant per million Btus (lb/MMBtus) heat input using the equations and methodology specified in 40 CFR Part 60, Appendix A, Method 19 (as it appears in the July 1, 1992, Code of Federal Regulations). Hourly emission rate data shall be recorded and used by the owner or operator to calculate compliance with the applicable emission rates and percent reductions for the specified averaging times.

The owner or operator shall also install, operate, and maintain a fuel sampling and analysis (FSA) system to collect "as-fired" fuel data. The FSA system shall meet or exceed the design and performance specifications set forth in 40 CFR Part 60, Appendix A, Method 19 (incorporating by reference of ASTM Method D2234-76, et al.). As specified by Method 19, at least a minimum number of sample increments shall be collected at a location immediately preceding each day bunker, composited, and analyzed daily. Coal analyses shall be conducted for weight percent sulfur (%S) and gross heat value (GHV, expressed in Btus/lb-coal).

The owner may develop an in-house coal analysis program or may send collected samples to a laboratory for analysis. In either case, the analytical results shall be available to the proposed boiler operator within 72 hours of the sample collection time.

The "as-fired" fuel data shall be used in conjunction with the SO<sub>2</sub> CEMS emission rate data to determine compliance with the SO<sub>2</sub> 30-day rolling percent reduction limit.

The owner shall calculate an equivalent SO<sub>2</sub> rate for each bunker using the weight percent sulfur and the gross heating value obtained through daily FSA, using the following equation:

Equivalent 
$$SO_2$$
 Inlet Rate of Individual Bunker =  $\frac{\%S}{GHV} * K$ 

Where K=20,000(lb\*BTU)/%\*MMBTU)

If the equivalent inlet SO<sub>2</sub> rates for coal contained in each day bunker which feeds to a single boiler differ by 0.2 lbs-SO<sub>2</sub> /MMBtu heat input or less, the arithmetic average of the two equivalent SO<sub>2</sub> inlet rates shall be used as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operation day.

Otherwise, the owner shall: (1) use the smaller of the two equivalent SO<sub>2</sub> inlet rates as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operating day; or (2) calculate an "equivalent hourly average SO<sub>2</sub> inlet rate" for each hour of operation using the following heat input weighted equation.

$$Equivalent\ Hourly\ Average\ SO_2\ Inlet\ Rate = \frac{(W_1*\%S_1) + (W_2*\%S_2)}{(W_1*GHV_1) + (W_2*GHV_2)}*K$$

W<sub>1</sub>= Tons of coal fed to first of paired day bunkers during hour

W<sub>2</sub>= Tons of coal fed to second of paired day bunkers during hour

 $%S_1$  = Weight percent sulfur of coal contained in first bunker

%S<sub>2</sub>= Weight percent sulfur of coal contained in second bunker

GHV<sub>1</sub>= Gross heating value of coal contained in first bunker

GHV<sub>2</sub>= Gross heating value of coal contained in second bunker

K = 20,000 (lb\*BTU) / (%\*MMBTU)

The existing continuous monitoring system for measuring the opacity of emissions discharged into the atmosphere shall be operated, and maintained during all periods of operation of the boiler except for continuous monitoring system breakdowns and repairs. Operation shall be in conformance with 40 CFR 60.48b which includes recording the output of the system. Reporting and recordkeeping requirements shall be in conformance with 40 CFR 60.49b which shall include filing a quarterly report of excess emissions as outlined therein.

Authority for Requirement: DNR PSD Permit #90-A-083P1

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#### **Continuous Emission Monitoring and Fuel Sampling Analysis:**

For CFBC Boiler #4 and for SO<sub>2</sub> emissions from CFBC Boilers #1, 2, 3:

#### A. $SO_2$ and $NO_X$ .

The owner shall continuously demonstrate compliance with the SO<sub>2</sub> and NO<sub>x</sub> emission limitations and SO<sub>2</sub> percent reduction requirements of this permit through the use of a continuous emission monitoring system (CEMS) and a fuel sampling and analysis (FSA) system. These systems shall be installed, operating and calibrated prior to beginning the initial compliance demonstration set forth in ["Compliance Demonstrations"] according to 40 CFR §60.13.

In the case where a CEMS is to be used as the test method for demonstrating compliance, the performance certification report shall be submitted to IDNR prior to initiating the facility compliance testing.

Compliance with the SO<sub>2</sub> and NO<sub>X</sub> emission rate limitations and the SO<sub>2</sub> percent reduction requirements shall be calculated as the average of all valid hourly emission rate data and valid hourly SO<sub>2</sub> percent reduction data for the 30 previous boiler operating days during which each standard applies. The owner shall calculate a new 30-day average at the end of each boiler operating day.

Unless otherwise approved by the Department, the selection of the CEMS span value (maximum data display output) for each parameter shall be those specified in Subpart Db of the Code of Federal Regulations.

In addition to the provisions of 40 CFR Part 60, Appendix B, the performance specifications applicable to the CEMS required by the permit shall include a data recovery requirement of 90% and shall meet precision and accuracy requirements of 10 percent and 10 percent of the applicable standard respective, unless otherwise specified in the permit. When the minimum data requirements of the permit cannot be obtained, the methods and procedures of 40 CFR §60.47b(c) and §60.48b(F) shall be employed by the owner to obtain the required data.

# 1. 30-Day Rolling NOx and SO<sub>2</sub> Emission Rate Compliance

The owner shall install, calibrate, operate, maintain, audit, and record the output from CEMS capable of measuring SO<sub>2</sub>, NO<sub>x</sub>, and the appropriate diluent gas (oxygen or carbon dioxide). The CEMS shall be installed, calibrated, operated, maintained, and audited. Data shall be recorded in accordance with the provisions found at 40 CFR §60.13 [Monitoring Requirements]; 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3 [Specification and Test Procedures for SO<sub>2</sub>, NO<sub>x</sub>, and diluent CEMS]; and 40 CFR Part 60, Appendix F [Quality Assurance Requirements for Gas CEMS Used for Compliance Determinations], as adopted by the Department by reference.

The CEMS shall be operated and data recorded during any period any fuel is combusted in the boiler. Hourly parts-per-million data recorded by the pollutant CEMS shall be converted to pound of pollutant per million Btu (lb/MMBtu) heat input using the equations and methodology specified in 40 CFR Part 60, Appendix A, Method 19 (as it appears in the July 1, 1992, Code of Federal Regulations). Hourly emission rate data shall be recorded and used by the owner/operator to calculate compliance with the applicable emission rates and percent reductions for the specified averaging times.

The owner shall successfully complete SO<sub>2</sub> and NO<sub>X</sub> CEMS performance evaluations including relative accuracy and calibration drift assessment evaluations prior to beginning the initial compliance demonstration.

The owner shall notify the DNR central office at least 30 days in advance of conducting any relative accuracy test.

# 2. SO<sub>2</sub> Percent Reduction Compliance

The owner shall install, calibrate, operate, and maintain a fuel sampling and analysis (FSA) system to collect "as-fired" fuel data. The FSA system shall meet or exceed the design and performance specifications set forth in 40 C.F.R. Part 60, Appendix A, Method 19 (incorporating by reference of ASTM Method D2234-76, et al.).

Analyses shall be performed for weight percent sulfur (%S) and gross heat value (GHV, expressed in Btu/lb-coal). The owner may develop an in-house coal analysis program or may send collected samples to a laboratory for analysis. In either case, the analytical results shall be available to the proposed boiler operator within 72 hours of the sample collection time.

The "as-fired" fuel data shall be used to determine the equivalent hourly average SO<sub>2</sub> inlet rate to the boiler, and shall be used in conjunction with the SO<sub>2</sub> CEMS emission rate data to determine compliance with the SO<sub>2</sub> 30-day rolling percent reduction limit.

The owner shall calculate an equivalent SO<sub>2</sub> rate for each bunker using the weight percent sulfur and the gross heating value obtained through daily FSA, using the following equation:

Equivalent 
$$SO_2$$
 Inlet Rate of Individual Bunker =  $\frac{\%S}{GHV} * K$ 

Where K = 20,000 (lb\*Btu)/(%\*MMBtu)

If the equivalent inlet SO<sub>2</sub> rates for coal contained in each day bunker which feeds to a single boiler differ by 0.2 lbs-SO<sub>2</sub>/MMBtu heat input or less, the arithmetic average of the two equivalent SO<sub>2</sub> inlet rates shall be used as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operation day.

Otherwise, the owner shall: (1) use the smaller of the two equivalent SO<sub>2</sub> inlet rates as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operating day; or (2) calculate an "equivalent hourly average SO<sub>2</sub> inlet rate" for each hour of operation using the following heat input weighted equation.

Equivalent Hourly Average 
$$SO_2$$
 Inlet Rate = 
$$\frac{(W_1 * \%S_1) + (W_2 * \%S_2)}{(W_1 * GHV_1) + (W_2 * GHV_2)} * K$$

 $W_1$  = Tons of coal fed to first of paired day bunkers during hour

 $W_2$  = Tons of coal fed to second of paired day bunkers during hour

 $%S_1$  = Weight percent sulfur of coal contained in first bunker

 $%S_2$  = Weight percent sulfur of coal contained in second bunker

 $GHV_1 = Gross$  heating value of coal contained in first bunker

 $GHV_2 = Gross$  heating value of coal contained in second bunker

K = 20,000 (lb\*BTU) / (%\*MMBTU)

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#### B. Particulate (PM<sub>10</sub>)

The existing continuous monitoring system for measuring the opacity of emissions discharged into the atmosphere shall be operated, and maintained during all periods of operation of the boiler except for continuous monitoring system breakdowns and repairs. Operation shall be in conformance with 40 CFR §60.48b which includes recording the output of the system. Reporting and recordkeeping requirements shall be in conformance with 40 CFR §60.49b which shall include filing a quarterly report of excess emissions as outlined therein.

### C. Lead (Pb) and Beryllium (Be)

Coal samples shall be analyzed for Lead (Pb) and Beryllium (Be) and the results submitted in writing to the IDNR on a quarterly basis. Fuel Sampling shall be conducted as specified in Condition A.2 above. Sample Analysis for Lead (Pb) and Beryllium (Be) shall be performed as specified in SW-846 Method 6010. The test results shall be reported as specified below.

The owner shall submit a written emissions report to the IDNR central office each calendar quarter. Reports shall be submitted to the IDNR postmarked no later than 30 days after the end of the calendar quarter starting with the quarter in which initial startup of the boiler occurs. The report shall include the following:

- Calendar dates covered by the report,
- Dates and hours of startup, shutdown or malfunction,
- Type, quality and quantity of fuel combusted,
- Each hourly SO<sub>2</sub>, NO<sub>x</sub>., opacity and diluent gas emission rate as well as each operating day's 3O-day average SO<sub>2</sub>, and NO<sub>x</sub>. emission rate and percent SO<sub>2</sub>, reduction determined during the reporting period,
- Each instance of excess emissions, and of non-standard or manual data collection and how those data were collected. Where data was excluded, exceeded full span of the CEMS or was not available for any other reason, together with reasons for each of these instances of noncompliance and a description of the corrective actions taken, and any statistics required pursuant to 40 CFR §60.49b(m),
- "F" factor, method of determination and fuel description,
- Description of any modification to the CEMS and its potential effect on CEMS performance,
- Results of daily CEMS drift test and quarterly accuracy assessments and related data as required under 40 CFR Part 60 Appendix F,
- Coal sampling and analysis results,
- PM<sub>10</sub>, Lead (Pb) and Beryllium (Be) quarterly test results.

All data, records, reports, documentation, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives for a minimum of five (5) years from the date of recording.

Authority for Requirement: DNR PSD Permit #93-A-324-S1

#### **Compliance Demonstrations:**

The owner shall verify initial compliance with the emission limitations contained in Emission Limit Section above and submit a written report of the results within 60 days of achieving maximum production and no later than 180 days after the startup date of the proposed boiler.

Initial compliance demonstrations shall include verification of the flue gas flow rate and exhaust temperature using methods approved by DNR prior to the pretest meeting.

The owner shall submit a written report to the DNR central office of each initial compliance demonstration attempt, whether successful or not, postmarked not later than 30 days after the completion of the test period or the termination of the attempt, whichever occurs first.

# A. Long Term Emission Limits

# 1. 30-Day Rolling NOx and SO<sub>2</sub> Emission Rate Compliance

The initial performance tests using a Continuous Emission Monitoring System (CEMS) shall be conducted over the first 30 consecutive boiler operating days. The first day of these tests shall be completed within 30 days after achieving maximum production rate but no later than 1 80 days after initial startup of the facility.

For the initial 30-day rolling average compliance test, NO<sub>X</sub>. and SO<sub>2</sub>, from the boiler shall be monitored for 30 consecutive boiler operating days. The 30-day average emission limit shall be calculated as the average of all valid hourly emission rate data recorded by the CEMS during the 30-day test period.

#### 2. SO<sub>2</sub> Percent Reduction Compliance

The initial performance tests using a Continuous Emission Monitoring System (CEMS) and a Fuel Sampling and Analysis (FSA) system shall be conducted over the first 30 successive boiler operating days. The first day of tests shall be completed within 30 days after achieving maximum production rate but no later than 180 days after initial startup of the facility. Performance tests using CEMS cannot be conducted until each CEMS is certified and accepted by the IDNR for such purposes.

The owner shall use all valid hourly stack emissions data recorded by the CEMS in conjunction with the corresponding equivalent inlet SO<sub>2</sub>, rate to calculate each hourly percent SO<sub>2</sub>. reduction achieved by the boiler. The 30-day average percent SO<sub>2</sub>. reduction shall be calculated as the average of all valid hourly percent reduction values collected during 30 consecutive boiler operating days during which the 90 percent reduction requirement applies.

A boiler operating day means any 24-hour period beginning at 7:00 a.m. and continuing to 7:00 a.m. the following day, during which any amount of coal is combusted in the boiler.

It is not necessary for coal to be combusted continuously for the entire 24-hour period to qualify as a boiler operating day. Valid data includes any data collected during any period of coal combustion and at all operating times.

#### B. Short Term Emission limits

The boiler shall be performance tested for compliance with the sulfur dioxide (SO<sub>2</sub>,), particulate (PM,.), carbon monoxide (CO), and fluoride (F), Lead (Pb) and Beryllium (Be) 3 hour emission standards.

The tests shall be conducted and a written report of the results shall be submitted to the DNR central office within sixty (60) days after achieving the maximum production rate at which the boiler will be operated, but no later than 180 days after initial startup of the boiler. Additional reports may be requested by the DNR central office, unless the owner and DNR agree to a demonstration through other means that the applicable standard is being met.

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The owner shall verify initial compliance with the emission limitations contained in Emission Limit Section and submit a written report of the results within 60 days of achieving maximum production and no later than 180 days after the startup date of the proposed boiler. Initial compliance demonstrations shall include verification of the flue gas flow rate and exhaust temperature using methods approved by IDNR prior to the pretest meeting.

The owner shall submit a written report to the DNR central office of each initial compliance demonstration attempt, whether successful or not, postmarked not later than 30 days after the completion of the test period or the termination of the attempt, whichever occurs first.

# A. Long Term Emission Limits

#### 1. 30-Day Rolling NO<sub>X</sub> and SO<sub>2</sub> Emission Rate Compliance

The initial performance tests using a Continuous Emission Monitoring System (CEMS) shall be conducted over the first 30 consecutive boiler operating days. The first day of these tests shall be completed within 30 days after achieving maximum production rate but no later than 180 days after initial startup of the facility.

For the initial 30-day rolling average compliance test, NO<sub>X</sub>. and SO<sub>2</sub>, from the boiler shall be monitored for 30 consecutive boiler operating days. The 30-day average emission limit shall be calculated as the average of all valid hourly emission rate data recorded by the CEMS during the 30-day test period.

### 2. SO<sub>2</sub> Percent Reduction Compliance

The initial performance tests using a Continuous Emission Monitoring System (CEMS) and a Fuel Sampling and Analysis (FSA) system shall be conducted over the first 30 successive boiler operating days. The first day of tests shall be completed within 30 days after achieving maximum production rate but no later than 180 days after initial startup of the facility. Performance tests using CEMS cannot be conducted until each CEMS is certified and accepted by the DNR for such purposes.

The owner shall use all valid hourly stack emissions data recorded by the CEMS in conjunction with the corresponding equivalent inlet SO<sub>2</sub> rate to calculate each hourly percent SO<sub>2</sub> reduction achieved by the boiler. The 30-day average percent SO<sub>2</sub> reduction shall be calculated as the average of all valid hourly percent reduction values collected during 30 consecutive boiler operating days during which the 90 percent reduction requirement applies.

A boiler operating day means any 24-hour period beginning at 7:00 a.m. and continuing to 7:00 a.m. the following day, during which any amount of coal is combusted in the boiler. It is not necessary for coal to be combusted continuously for the entire 24-hour period to qualify as a boiler operating day. Valid data includes any data collected during any period of coal combustion and at all operating times.

#### B. Short Term Emission limits

The boiler shall be performance tested for compliance with the sulfur dioxide (SO<sub>2</sub>), particulate (PM<sub>10</sub>), carbon monoxide (CO), and fluoride (F), Lead (Pb) and Beryllium (Be) 3 hour emission standards.

The tests shall be conducted and a written report of the results shall be submitted to the DNR central office within sixty (60) days after achieving the maximum production rate at which the boiler will be operated, but no later than 180 days after initial startup of the boiler. Additional

reports may be requested by the DNR central office, unless the owner and DNR agree to a demonstration through other means that the applicable standard is being met.

The CO compliance tests shall be conducted under the same operating and combustion conditions as the NO<sub>X</sub> CEMS certification tests. Compliance with the NO<sub>X</sub>/BACT emission limit shall take preference if difficulties are encountered in achieving simultaneous compliance with these BACT emission limits. If such difficulties are encountered, the owner may subsequently request a revision of the CO/BACT emission limit.

The following shall apply to all compliance demonstrations:

- Each compliance test conducted shall be approved by the IDNR central office.
- Each compliance test shall consist of three (3) separate runs. The duration shall be established by the DNR central office representative at the pretest meeting. The arithmetic mean of the results of the three runs shall apply for compliance.
- The compliance test method for PM,. shall be Reference Method 5 per 40 CFR §60.46b; for CO shall be the integrated sample of Method 10 of 40 CFR Part 60, Appendix A; for Lead (Pb) shall be reference method 12 of 40 CFR Part 60; and for Beryllium (Be) shall be Reference Method 104 of 40 CFR Part 61, Appendix B. The DNR central office will set forth the test methods and test procedures for fluorides.
- Opacity measurements shall be conducted per Reference Method 9, 40 CFR Part 60, Appendix A during the initial compliance tests for PM<sub>10</sub>. Alternatively, the opacity monitor may be used for the initial compliance demonstration according to the procedures in 40 CFR §60.11(e)(5).

#### C. Pretest Meeting

A pretest meeting shall be held at a mutually agreeable site no later than thirty (30) days prior to the date of each compliance test or the date of each CEMS performance evaluation, whichever occurs first if performed at different times. Each meeting shall be attended by representatives of the DNR central office, the owner and the compliance testing firm, if used. Representatives of the Linn County Health Department shall be invited to attend each pretest meeting and each compliance demonstration.

It shall be the responsibility of the owner to coordinate and schedule each meeting, and to formally notify all participants of each pretest meeting date, compliance test date, and CEMS performance evaluation date.

Upon being notified, the DNR will send to the owner a "proposed test plan" questionnaire. The questionnaire shall be completed by the owner and submitted to the DNR as directed. The completed questionnaire must be received by the DNR no later than fifteen (15) working days prior to the pretest meeting date.

#### D. Additional Notices

**JAK** 

The Department reserves the right to impose additional, different, or more detailed testing requirements as the need arises. It is the responsibility of the owner to locate the test ports to be used during compliance testing.

Authority for Requirement: DNR PSD Permit #93-A-324-S1

#### **Fuel Requirements:**

Fuel shall be limited to number 1 or number 2 fuel oil with a sulfur content not to exceed 0.5 percent, by weight.

Authority for Requirement: LCO 10.12(1)"c"

567 IAC 23.3(3)"b"(1)

# **Reporting Requirements:**

Copies of all reporting required in PSD Permit 93-A-324-S1 shall be submitted to LCPH.

Authority for Requirement: LCPH ATI 3221 / PTO 3134

#### **Records Retention:**

Any data, records, reports, documentation, and calculations required to be kept under this permit shall be available at the plant during normal business hours in a form suitable for inspection and copying by federal, state, or local air pollution regulatory agencies, and their authorized representatives for at least five (5) years from the date of their establishment.

Authority for Requirement: 567 IAC 22.108(4)

#### **NSPS General Requirements:**

These boilers are subject to 40 CFR 60 NSPS Subpart Db, Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units.

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. 40 CFR §60.7(b)

The permittee shall submit an excess emissions and monitoring systems performance report to the Department and Administrator in accordance with 40 CFR §60.7(c). The summary report form shall contain the information and format required in 40 CFR §60.7(d).

Notwithstanding the frequency of reporting requirements in the prior permit conditions, the permittee may reduce the frequency of reporting of excess emissions and monitoring system performance reports pursuant to 40 CFR §60.7(e).

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR 60.12

Authority for Requirement: 567 IAC 23.1(2)

#### **Existing Large Solid Fuel Subcategory:**

These emission units are subject to 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 DDDDD - NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR §63.7480 through 40 CFR §63.7575).

Authority for requirement: NESHAP Subpart A; NESHAP Subpart DDDDD

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 350 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 138 Exhaust Temperature (°F): 320°F

Exhaust Flow Rate (acfm): 400,900 (combined Boilers #3 and #4)

UTM Location: 4,642,020.0 meters Northerly and 608,775.0 meters Easterly

Authority for Requirement: DNR PSD Permit #93-A-324-S1

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

## **Monitoring Requirements**

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

#### **Stack Testing:**

Stack testing is not required at this time.

**Continuous Emissions Monitoring:** 

Pollutant:	Nitrogen Oxides (NO <sub>x</sub> )
Continuous Emissions Monitor ID:	ME-502A for Boiler #3
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #90-A-083P1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Nitrogen Oxides (NO <sub>x</sub> )
Continuous Emissions Monitor ID:	ME-502B for Boiler #4
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Opacity
Continuous Emissions Monitor ID:	ME-502C for Boilers #3 and #4
Operational Specifications:	40 CFR §60.13 and 40 CFR §60.45
Date of Most Recent System Calibration & Quality Assurance:	March 2, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60
Reporting & Recordkeeping:	40 CFR Part 60
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Sulfur Dioxide (SO <sub>2</sub> )
Continuous Emissions Monitor ID:	ME-502F for Boiler #3
Operational Specifications:	40 CFR Part 60 Subpart Db
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #90-A-083P1 40 CFR 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Sulfur Dioxide (SO <sub>2</sub> )
Continuous Emissions Monitor ID:	ME-502G for Boiler #4
Operational Specifications:	40 CFR Part 60 Subpart Db
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

# **Other Parameters:**

Pollutant:	Diluent Gas (Oxygen)
Continuous Emissions Monitor ID:	ME-502D for Boiler #3
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 DNR PSD Permit #90-A-083P1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Diluent Gas (Oxygen)
Continuous Emissions Monitor ID:	ME-502E for Boiler #4
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix A and B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Flow
Continuous Emissions Monitor ID:	ME-502H for Boiler #4
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	February 23, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F
Reporting & Recordkeeping:	40 CFR Part 60, Appendix B
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Diluent Gas (Carbon Monoxide)	
Continuous Emissions Monitor ID:	ME-502I for Boiler #4	
Operational Specifications:	40 CFR Part 60	
Date of Most Recent System Calibration & Quality Assurance:	February 23, 2016	
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60, Appendix F	
Reporting & Recordkeeping:	40 CFR Part 60, Appendix B	
Authority for Requirement:	DNR PSD Permit #93-A-324-S1 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)	

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 ⊠¹ No □

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

The SO<sub>2</sub> and NO<sub>X</sub> potentials to emit trigger Agency-approved operation & maintenance plans; however, existing CEMS at this emission point meet or exceed the Agency-approved operation & maintenance plan requirements for these pollutants.

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring is required for PM<sub>10</sub> and an agency approved operation and maintenance plan is required for PM; however, because both PM and PM<sub>10</sub> are controlled by the same equipment, and CAM is more stringent, the agency approved operation and maintenance plan requirement has been waived.

**Emission Point ID Number: SEP-503** 

**Process Area: COGENERATION** 

Table Co-Gen 23. Associated Equipment.

			Raw Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-503	EU-503	Bunker Dust	Coal	600	CE-503	Baghouse
		Collector		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.

# Table Co-Gen 24. Emission Limits.

EP	EU	Opacity	Particulate Matter	Authority for Requirement
SEP-503	EU-503	0% <5% at pick-up points	0.01 gr/dscf	DNR Permit #86-A-093

# Table Co-Gen 25. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-503	EU-503	Opacity	20%	40 CFR §60.252(c) Subpart Y
				567 IAC 23.1(2)"v"
				LCO 10.9(2)"a"(22)
				LCO 10.7
		PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
			2.41 lb/hr	LCO 10.9(1)"a"
				LCPH ATI 6163 / PTO 6235
		$PM_{10}$	2.41 lb/hr	LCPH ATI 6163 / PTO 6235

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

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

#### **NSPS Requirements:**

These units are subject to 40 CFR Part 60 NSPS Subpart Y, Standards of Performance for Coal Preparation Plants.

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR §60.11(c).

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is

not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR §60.12

Authority for Requirement: 567 IAC 23.1(2)

### **Operating Limits:**

The owner or operator of this equipment shall comply with the operational lmiits and requirements listed below:

- A. The baseline actual emissions for the project are equal to 3.39 tons per year for PM<sub>10</sub>. The baseline actual emissions shall remain unchanged throughout the ten (10) year period following resumption of regular operations after Project 1722 is completed.
- B. The owner or operator shall determine the actual emissions for Project 1722 by summing the emissions from the following emission points each month: EP-503, EP-514, and EP-515.
- C. Actual PM<sub>10</sub> emissions minus the baseline actual PM<sub>10</sub> emissions from Project 1722 shall not exceed the PSD significant level of 14.4 tons per calendar year. If this limit is exceeded during the ten (10) year review period, the owner or operator shall submit a report pursuant to 567 IAC 33.3(18)"f"(7).
- D. The owner or operator of this equipment shall comply with the operational limits and requirements listed in IDNR Permit 86-A-093.
- E. This facility shall meet all applicable requirements of NSPS Subpart A (40 CFR §60.1 through 40 CFR §60.19) to comply with LCO 10.9(2).
- F. This facility shall meet the applicable standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles, per NSPS Subpart Y (40 CFR §60.250 through 40 CFR §60.258) to comply with LCO 10.9(2)"a"(22).
- G. This facility shall meet the test methods and procedures of NSPS Subpart Y (40 CFR §60.257) to comply with LCO 10.9(2)"a"(22).
- H. The pressure differential across the baghouse shall be between 0.5 inches of water column and 8.0 inches of water column.
- I. The control equipment on this unit shall be maintained according to the manufacturer's specifications and good operating practices.

Authority for Requirement: LCPH ATI 6163 / PTO 6235

### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall record each month the sum of the actual PM<sub>10</sub> emissions from the following emission points: EP-503, EP-514, and EP-515.
- B. The owner or operator shall record each month the 12-month rolling value of the actual emissions minus the baseline actual emissions from the following emission points: EP-503, EP-514, and EP-515. This written record shall be retained by the owner or operator for a period of ten (10) years after the resumption of regular operations following completion of Project 1722.
- C. The facility is allowed to exclude those emissions following this change that could have been accommodated during the consecutive 24-month period used to establish BAE, and is unrelated to this project (i.e., increased utilization due to demand growth). The facility shall be required to include a justification for any emissions excluded due to demand growth.
- D. The owner or operator of this equipment shall comply with the monitoring and recordkeeping requirements listed in IDNR PSD Permit 86-A-093.
- E. Notification and recordkeeping requirements for NSPS Subpart A shall be done in accordance with 40 CFR §60.7.
- F. General notification and reporting requirements for NSPS Subpart A shall be done in accordance with 40 CFR §60.19.
- G. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operate or equipment associated with the exceedance, and record the corrective action taken.
- H. The owner or operator shall record all maintenance and repair completed on the control device.
- I. The owner or operator shall monitor and record the differential pressure across the baghouse on a weekly basis.

Authority for Requirement: LCPH ATI 6163 / PTO 6235

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 165 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 36 Exhaust Temperature (°F): 103°F Exhaust Flow Rate (acfm): 45,441

Authority for Requirement: LCPH ATI 6163 / PTO 6235

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

### **Monitoring Requirements**

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

### **Stack Testing:**

The following stack tests shall be performed:

Pollutant – Particulate Matter
1st Stack Test to be Completed by – within first two years of permit term
Test Method – Method 5 (40 CFR Part 60, Appendix A)
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – PM<sub>10</sub> 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 201A with 202 (40 CFR 51) or approved alternative 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)

## **Opacity Monitoring:**

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.

Agency Approved Operation & Maintenance Plan Required?	Yes	No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🖂 1	No 🗌
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🔀 2	No 🗌

<sup>&</sup>lt;sup>1</sup> Facility maintained operation & maintenance plan is required for PM.

<sup>&</sup>lt;sup>2</sup> Compliance Assurance Monitoring plan is required for PM<sub>10</sub>. Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

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.

**Emission Point ID Number: SEP-504** 

**Process Area: COGENERATION** 

Table Co-Gen 26. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-504	EU-504	Crusher Building D.C. System	Coal	1800 ton/hr	CE-504	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.

#### Table Co-Gen 27. Emission Limits.

EP	EU	Opacity	Particulate Matter	Authority for Requirement
SEP-504	EU-504		0.01 gr/dscf	DNR Permit #86-A-092
		<5% at pick-up points		

# Table Co-Gen 28. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-504	EU-504	Opacity	20%	40 CFR §60.252(c) Subpart Y
				567 IAC 23.1(2)"v"
				LCO 10.9(2)"a"(22)
				LCO 10.7
		PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
			2.18 lb/hr	LCO 10.9(1)"a"
				LCPH ATI 5801 / PTO 5970
		$PM_{10}$	2.18 lb/hr	LCPH ATI 5801 / PTO 5970

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

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

#### **NSPS Requirements:**

These units are subject to 40 CFR Part 60 NSPS Subpart Y, Standards of Performance for Coal Preparation Plants.

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR §60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is

not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR §60.12

Authority for Requirement: 567 IAC 23.1(2)

## **Operating Limits:**

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

- A. This facility shall meet all applicable requirements of NSPS Subpart A (40 CFR §60.1 through 40 CFR §60.19) to comply with LCO 10.9(2).
- B. This facility shall meet the applicable standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles of NSPS Subpart Y (40 CFR §60.250 through 40 CFR §60.258) to comply with LCO 10.9(2)"a"(22).
- C. This facility shall meet the performance tests and other compliance requirements of NSPS Subpart Y (40 CFR §60.255) to comply with LCO 10.9(2)"a"(22).
- D. This facility shall meet the test methods and procedures of NSPS Subpart Y (40 CFR §60.257) to comply with LCO 10.9(2)"a"(22).
- E. The pressure differential across the baghouse shall be between 0.5 inches of water column and 8.0 inches of water column.
- F. The control equipment on this unit shall be maintained according to the manufacturer's specifications and good operating practices.

Authority for Requirement: LCPH ATI 5801 / PTO 5970

### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Notification and recordkeeping requirements for NSPS Subpart A shall be done in accordance with 40 CFR §60.7.
- B. General notification and reporting requirements for NSPS Subpart A shall be done in accordance with 40 CFR §60.19.
- C. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- D. The differential pressure across the baghouse shall be monitored and recorded on a weekly basis.

E. Maintain records of all maintenance completed on the control device.

Authority for Requirement: LCPH ATI 5801 / PTO 5970

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 61 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 36 Exhaust Temperature (°F): 58°F Exhaust Flow Rate (acfm): 25,000

Authority for Requirement: LCPH ATI 5801 / PTO 5970

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

# **Monitoring Requirements**

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

## **Stack Testing:**

The following stack tests shall be performed:

Pollutant – Particulate Matter
1st Stack Test to be Completed by – within first two years of permit term
Test Method – Method 5 (40 CFR Part 60, Appendix A)
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – PM<sub>10</sub> 1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 201A with 202 (40 CFR 51) or approved alternative 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)

### **Opacity Monitoring:**

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 this 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(3)

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

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

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.

**Emission Point ID Number: SEP-505** 

**Process Area: COGENERATION** 

Table Co-Gen 29. Associated Equipment.

			Raw Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-505	EU-505	Limestone Unloading	Limestone	250	CE-505	Baghouse
		Dust Collector		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.

Table Co-Gen 30. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-505	EU-505	Opacity	20%	LCO 10.7
		PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"
		PM	2.18 lb/hr?	LCPH ATI 5802 / PTO 5971
		PM <sub>10</sub>		

# **Operational Limits & Requirements**

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

#### **Operating Limits:**

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

A. The differential pressure across the baghouse shall be maintained between 0.5 inches of water column and 8.0 inches of water column.

Authority for Requirement: LCPH ATI 5802 / PTO 5971

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will required the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. The differential pressure across the baghouse shall be monitored and recorded on a weekly basis.
- C. All maintenance performed on the control device shall be recorded.

Authority for Requirement: LCPH ATI 5802 / PTO 5971

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 150 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 36 Exhaust Temperature (°F): 58°F Exhaust Flow Rate (acfm): 25,000

Authority for Requirement: LCPH ATI 5802 / PTO 5971

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

# **Monitoring Requirements**

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

## **Stack Testing:**

Stack testing is not required at this time.

### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🖂 1 No 🗌

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring is required for PM and a facility maintained operation and maintenance plan is required for PM<sub>10</sub>; however, as PM and PM<sub>10</sub> are controlled by the same equipment, and CAM is more stringent, the facility maintained operation and maintenance plan requirement has been waived.

**Emission Point ID Number: SEP-506** 

**Process Area: COGENERATION** 

Table Co-Gen 31. Associated Equipment.

			Raw			
			Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-506	EU-506	Fly Ash Conveying	Fly Ash	55 ton/hr	CE-506	Baghouse
		Dust Collector A				
	EU-507	Fly Ash Conveying	Fly Ash	55 ton/hr	CE-507	Baghouse
		Dust Collector B				
	EU-509	Bed Ash Conveying	Bed Ash	15 ton/hr	CE-509	Baghouse
		Dust Collector A				
	EU-510	Bed Ash Conveying	Bed Ash	15 ton/hr	CE-510	Baghouse
		Dust Collector B				
	EU-520	Fly Ash Conveying	Fly Ash	55 ton/hr	CE-520	Baghouse
		Dust Collector C				
	EU-541	Bed Ash Conveying	Bed Ash	15 ton/hr	CE-541	Baghouse
		Dust Collector C				

# **Applicable Requirements**

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

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

Table Co-Gen 32. Emission Limits.

				Particulate	
EP	EU	Opacity	PM <sub>10</sub>	Matter	Authority for Requirement
SEP-506	EU-506	0%	1.95 lb/hr	0.02 gr/dscf	DNR Permit #86-A-096
	EU-507			1.95 lb/hr	DNR Permit #88-A-023
	EU-509				DNR Permit #86-A-099
	EU-510				DNR Permit #86-A-100
	EU-520				LCPH ATI 5803 / PTO 5972
	EU-541				

# Table Co-Gen 33. General Emission Limits.

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EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-506	EU-506	Opacity	20%	LCO 10.7
	EU-507	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
	EU-509		_	LCO 10.9(1)"a"
	EU-510			
	EU-520			
	EU-541			
	EP	EP EU SEP-506 EU-506 EU-507 EU-509 EU-510 EU-520	EP         EU         Pollutant           SEP-506         EU-506         Opacity           EU-507         PM           EU-509         EU-510           EU-520         EU-520	SEP-506 EU-506 Opacity 20% EU-507 EU-509 EU-510 EU-520

# **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate emissions for SEP-506, SEP-507, SEP-509, SEP-510, SEP-520, and SEP-541, each. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in 'Operating Condition Monitoring and Recordkeeping' shall be installed, maintained, and operating during the operation of the emission unit and control device at all times.

Authority for requirement: LCPH ATI 5803 / PTO 5972

## **Operating Limits:**

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

A. The differential pressure across each baghouse (CE-506, CE-507, CE-509, CE-510, CE-520, and CE-541) shall be between 0.5 inches of water column and 8.0 inches of water column.

Authority for requirement: LCPH ATI 5803 / PTO 5972

At no time shall more than two of the following three emission units operate simultaneously: EU-506, EU-507, and EU-520.

Authority for requirement: IDNR Permit 88-A-023; IDNR Permit 86-A-096

At no time shall more than two of the following three emission units operate simultaneously: EU-509, EU-510, and EU-541.

Authority for requirement: IDNR Permit 86-A-099; IDNR Permit 86-A-100

### **Operating Condition Monitoring and Recordkeeping:**

All records, as required by this permit, shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The differential pressure across each baghouse (CE-506, CE-507, CE-509, CE-510, CE-520, and CE-541) shall be monitored and recorded on a weekly basis.
- B. All maintenance performed on the control devices shall be recorded.

Authority for requirement: LCPH ATI 5803 / PTO 5972

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 145 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 16 Exhaust Temperature (°F): 160°F Exhaust Flow Rate (acfm): 13,350

Authority for Requirement: LCPH ATI 5803 / PTO 5972

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

# **Monitoring Requirements**

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

### **Stack Testing:**

Stack testing is not required at this time.

## **Opacity Monitoring:**

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 this unit. If visible emissions are observed, corrective action will be taken as soon as possible, but no later than 8 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 8 hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for requirement: 567 IAC 22.108(14)

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

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.

Emission Point ID Number: SEP-508, SEP-511, SEP-534, SEP-538

**Process Area: COGENERATION** 

Table Co-Gen 34. Associated Equipment.

			Raw Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-508	EU-508	Fly Ash Silo Vent	Fly Ash	110	CE-508	Baghouse
		Dust Collector		ton/hr		
SEP-511	EU-511	Bed Ash Silo Vent	Bed Ash	85 ton/hr	CE-511	Baghouse
		Dust Collector				
SEP-534	EU-534	Fly Ash Silo Vent	Fly Ash	30 ton/hr	CE-534	Baghouse
SEP-538	EU-538	Bed Ash Silo Vent	Bed Ash	14 ton/hr	CE-538	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.

Table Co-Gen 35. Emission Limits.

				Particulate	
EP	EU	Opacity	PM <sub>10</sub>	Matter	Authority for Requirement
SEP-508	EU-508	0%		0.02	DNR Permit #86-A-095
				gr/dscf	
SEP-511	EU-511	0%		0.02	DNR Permit #86-A-097
				gr/dscf	
SEP-534	EU-534	10%	0.012	0.012	DNR PSD Permit #98-A-511-P2
			gr/dscf	gr/dscf	LCPH ATI 3733 / PTO 4737
SEP-534	EU-534		0.21		DNR PSD Permit #98-A-511-P2
			lb/hr*		LCPH ATI 3733 / PTO 4737
SEP-538	EU-538	10%	0.012	0.012	DNR PSD Permit #98-A-515-P2
			gr/dscf	gr/dscf	LCPH ATI 3729 / PTO 4733
SEP-538	EU-538		0.21		DNR PSD Permit #98-A-515-P2
			lb/hr*		LCPH ATI 3729 / PTO 4733

<sup>\*</sup>Emission rate used to demonstrate the boiler project was below PSD significant impact levels for PM<sub>10</sub>.

Table Co-Gen 36. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-508	EU-508	Opacity	20%	LCO 10.7
SEP-511	EU-511	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
SEP-534	EU-534			LCO 10.9(1)"a"
SEP-538	EU-538			, ,

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## **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate matter emissions for SEP-534 and SEP-538. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 3733 / PTO 4737

LCPH ATI 3729 / PTO 4733

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Co-Gen 37.

		Stack Charact	Stack Characteristics				
						Exhaust	
	LCPH	Stack Height		Stack	Exhaust	Flow	
	ATI / PTO	(feet, above	Discharge	Opening	Temp.	Rate	
EP	Numbers	ground)	Style	(inches, dia.)	(°F)	(scfm)	
SEP-534	3733 / 4737	127	Horizontal	24 x 48	70	2,100	
SEP-538	3729 / 4733	127	Horizontal	24 x 48	70	2,100	

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

### **Monitoring Requirements**

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

### **Stack Testing:**

Stack testing is not required at this time.

### **Opacity Monitoring:**

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 greater than the applicable standard listed in **Table Co-Gen 35** above 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(3)

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes ⊠¹ 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.

<sup>&</sup>lt;sup>1</sup> Facility maintained operation & maintenance plan is required for PM and PM<sub>10</sub> for SEP-534 and SEP-538.

**Emission Point ID Number: SEP-512, SEP-513** 

**Process Area: COGENERATION** 

Table Co-Gen 38. Associated Equipment.

			Raw			
			Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-512	EU-512	Transferring	Limestone	250	CE-	Bin Vent
		Limestone into		ton/hr	512	Filter
		Storage Dust Collector				
SEP-513	EU-513	Transferring	Limestone	250	CE-	Bin Vent
		Limestone into		ton/hr	513	Filter
		Storage Dust Collector				

# **Applicable Requirements**

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

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

#### Table Co-Gen 39. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-512	EU-512	Opacity	20%	LCO 10.7
SEP-513	EU-513	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"
		$PM_{10}$	0.086 lb/hr	ATI 6730 / PTO 6611
				ATI 6729 / PTO 6612

### **Operational Limits & Requirements**

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

#### **Operating Limits:**

- A. The control equipment shall be maintained according to the manufacturer's specifications and good operating practices.
- B. The differential pressure across the bin vent filter shall be 0.2 inches of water column to 6 inches of water column.

Authority for Requirement: LCPH ATI 6730 / PTO 6611

LCPH ATI 6729 / PTO 6612

### **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to

promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.

- B. Record all maintenance and repair completed on the control device.
- C. Monitor and record differential pressure across the bin vent filter on a weekly basis.

Authority for Requirement: LCPH ATI 6730 / PTO 6611

LCPH ATI 6729 / PTO 6612

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Co-Gen 40.

		Stack Charact	Stack Characteristics				
						Exhaust	
	LCPH	Stack Height		Stack	Exhaust	Flow	
	ATI / PTO	(feet, above	Discharge	Opening	Temp.	Rate	
EP	Numbers	ground)	Style	(inches, dia.)	(°F)	(scfm)	
SEP-512	6730 / 6611	138	Horizontal	7.5 x 10	68	1,000	
SEP-513	6729 / 6612	138	Horizontal	7.5 x 10	68	1,000	

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

#### **Monitoring Requirements**

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

# **Stack Testing:**

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation

attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

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.

**Emission Point ID Number: SEP-514, SEP-515** 

**Process Area: COGENERATION** 

Table Co-Gen 41. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-514	EU-514	Coal Truck Dump Pit	Coal	1,200	CE-	Baghouse
		Dust Collector (South)		ton/hr	514	
SEP-515	EU-515	Coal Truck Dump Pit	Coal	1,200	CE-	Baghouse
		Dust Collector (North)		ton/hr	514	

# **Applicable Requirements**

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

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

Table Co-Gen 42. Emission Limits.

				Particulate	
EP	EU	Opacity	$PM_{10}$	Matter	Authority for Requirement
SEP-514	EU-514	10%		0.18 tpy	DNR Permit #86-A-094
SEP-515	EU-515				
SEP-514	EU-514	$10\%^{1}$		0.01	40 CFR §60.254(b)(2) Subpart Y
SEP-515	EU-515			gr/dscf	567 IAC 23.1(2)"v"
					LCO 10.9(2)"a"(22)
SEP-514	EU-514		1.6 lb/hr <sup>2</sup>	1.6 lb/hr <sup>2</sup>	LCPH ATI 6108 / PTO 6236
SEP-515	EU-515		$14.4 \text{ tpy}^3$		LCPH ATI 6120 / PTO 6237

#### Table Co-Gen 43. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-514	EU-514	Opacity	20%	LCO 10.7
SEP-515	EU-515	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"

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

### **Operational Limits & Requirements**

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

<sup>&</sup>lt;sup>2</sup> Emission rate used to demonstrate no exceedance of the National Ambient Air Quality Standards (NAAQS).

<sup>&</sup>lt;sup>3</sup> This emission limit is a PSD synthetic minor limit that was established for this project, which includes SEP-503, SEP-514, and SEP-515. Compliance with this annual emission limit is demonstrated pursuant to "Operating Condition Monitoring and Recordkeeping."

## **NSPS and NESHAP Applicability:**

These units are subject to 40 CFR 60 NSPS Subpart Y, Standards of Performance for Coal Preparation Plants.

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR §60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR §60.12

Authority for Requirement: 567 IAC 23.1(2)

This source is not subject to a NESHAP at this time.

Authority for Requirement: LCPH ATI 6108 / PTO 6236

LCPH ATI 6120 / PTO 6237

#### **Control Device:**

A baghouse shall be installed to control particulate emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges need to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained, and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6108 / PTO 6236

LCPH ATI 6120 / PTO 6237

# **Operating Limits:**

- A. This source shall be limited to a monthly average of 110 hours of operation per week.
- B. The differential pressure across the baghouse shall be 0.5 inches of water column to 8 inches of water column.
- C. This facility shall meet all applicable requirements of 40 CFR Part 60 (NSPS Subpart A) to comply with LCO 10.9(2).
- D. This facility shall meet the applicable standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles of 40 CFR §60.254 (NSPS Subpart Y) to comply with LCO 10.9(2)"a"(22).
- E. This facility shall meet the performance tests and other compliance requirements of 40 CFR §60.255 (NSPS Subpart Y) to comply with LCO 10.9(2)"a"(22).

- F. This facility shall meet the test methods and procedures of 40 CFR §60.257 (NSPS Subpart Y) to comply with LCO 10.9(2)"a"(22).
- G. The baseline actual emissions for the project are equal to 3.39 tons per year for PM<sub>10</sub>. The baseline actual emissions shall remain unchanged throughout the ten (10) year period following the issuance of this permit.
- H. The owner or operator shall determine the actual emissions for the project by summing the emissions from the following emission points each month: SEP-503, SEP-514, and SEP-515.
- I. Actual emissions minus the baseline actual emissions from the project shall not exceed the PSD significant levels: 14.4 tons per 12-month rolling period of PM<sub>10</sub>. If these limits are exceeded during the ten (10) year review period, the owner or operator shall submit a report pursuant to 567 IAC 33.3(18)"f"(7).

Authority for Requirement: LCPH ATI 6108 / PTO 6236

LCPH ATI 6120 / PTO 6237

# **Operating Condition Monitoring and Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept onsite for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner/operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Hours of operation of the coal dump pit dust collection system.
- C. Record all maintenance and repair completed on the control device.
- D. Monitor and record differential pressure across the baghouse on a weekly basis.
- E. Notification and recordkeeping requirements for NSPS Subpart A shall be done in accordance with 40 CFR §60.7.
- F. General notification and reporting requirements for NSPS Subpart A shall be done in accordance with 40 CFR §60.19.
- G. Record each month the sum of the actual PM<sub>10</sub> emissions from the following emission points: SEP-503, SEP-514, and SEP-515.
- H. Record each month the 12-month rolling value of the actual emission minus the baseline actual emissions from the following emission points: SEP-503, SEP-514, and SEP-515. This written record shall be retained by the owner or operator for a period of ten (10) years after the project is completed.

I. The facility is allowed to exclude those emissions following this change that could have been accommodated during the consecutive 24-month period used to establish BAE, and is unrelated to this project (i.e., increased utilization due to demand growth). The facility shall be required to include a justification for any emissions excluded due to demand growth.

Authority for Requirement: LCPH ATI 6108 / PTO 6236

LCPH ATI 6120 / PTO 6237

### **Reporting:**

The owner or operator shall submit to the department the 12-month rolling value of the actual emissions minus the baseline actual emissions each calendar year. This information must be postmarked by March 31 for each calendar year submitted (i.e., the initial report shall be postmarked by March 31, 2012).

Authority for Requirement: LCPH ATI 6108 / PTO 6236

LCPH ATI 6120 / PTO 6237

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Co-Gen 44.

		Stack Characte	Stack Characteristics				
				Stack		Exhaust	
	LCPH	Stack Height		Opening	Exhaust	Flow	
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate	
EP	Numbers	ground)	Style	dia.)	(°F)	(scfm)	
SEP-514	6108 / 6236	85	Vertical,	52	70	75,000	
			unobstructed				
SEP-515	6120 / 6237	85	Vertical,	52	70	75,000	
			unobstructed				

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

### **Monitoring Requirements**

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

#### **Stack Testing:**

The following stack tests shall be performed:

Pollutant – Particulate Matter<sup>1</sup>
1st Stack Test to be Completed by – within first two years of permit term Test Method – Method 5 (40 CFR Part 60, Appendix A)
Authority for Requirement – 567 IAC 22.108(3)

Pollutant – Particulate Matter (PM<sub>10</sub>)<sup>1</sup>

1<sup>st</sup> Stack Test to be Completed by – within first two years of permit term Test Method – Method 201A with 202 (40 CFR Part 51, Appendix M) Authority for Requirement – 567 IAC 22.108(3)

<sup>1</sup> ADM may choose to perform the required tests on either the North or South Coal Truck Dump Pit Dust Collector. One set of tests may be used to represent emissions and compliance from both emission points. If the test results for any pollutant are 90% or above of the applicable standard, additional testing of both dust collectors shall be required. A test protocol must be approved by the Department's stack testing personnel prior to testing.

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)

# **Opacity Monitoring:**

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 >10 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?

Yes □ No ☑

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No □

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □¹ No □

<sup>1</sup> Compliance Assurance Monitoring is required for PM<sub>10</sub> and a facility maintained operation and maintenance plan is required for PM; however, as PM and PM<sub>10</sub> are controlled by the same equipment, and CAM is more stringent, the facility maintained operation and maintenance plan requirement is waived.

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

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**Emission Point ID Number: SEP-521** 

**Process Area: COGENERATION** 

Table Co-Gen 45. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-521	EU-521	Co-Gen HCl	HC1	10,000	CE-	Venturi Scrubber
		and		gal/hr	521A	& Neutralization
		Neutralization			CE-	Tank Spray
		Tanks			521B	Scrubber

# **Applicable Requirements**

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

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

### Table Co-Gen 46. Emission Limits.

EP	EU	Opacity	PM <sub>10</sub>	Particulate Matter	Authority for Requirement
SEP-521	EU-521		0.26 lb/hr <sup>1</sup>	0.26 lb/hr <sup>1</sup>	LCPH ATI 4943 / PTO 5306

#### Table Co-Gen 47. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-521	EU-521	Opacity	20%	LCO 10.7
				LCPH ATI 4943 / PTO 5306
		PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"
				LCPH ATI 4943 / PTO 5306

<sup>&</sup>lt;sup>1</sup>It is assumed that PM is equal to PM<sub>10</sub>.

# **Operational Limits & Requirements**

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

#### **Control Device:**

A venturi and a spray scrubber shall be used to control HCl emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4943 / PTO 5306

#### **Operating Limits:**

A. Fresh water flow to the spray scrubber shall be maintained at 3 gallons per minute or greater.

Authority for Requirement: LCPH ATI 4943 / PTO 5306

## **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. Record the fresh water flow to the spray scrubber on a daily basis.
- B. Monitor and record "no visible emissions" observations on a weekly basis.
- C. Records of all maintenance and repairs completed on the control device.

Authority for Requirement: LCPH ATI 4943 / PTO 5306

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height (ft, from ground): 24 Discharge Style: Vertical, unobstructed Stack Opening (inches, diameter): 16

Exhaust Temparture (°F): 65 Exhaust Flow Rate (scfm): 300

Authority for Requirement: LCPH ATI 4943 / PTO 5306

The temperature and flow rates are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

### **Monitoring Requirements**

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

Stack testing is not required at this time.

### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

**Emission Point ID Number: SEP-522, SEP-539** 

**Process Area: COGENERATION** 

Table Co-Gen 48. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-522	EU-522	Co-gen Turbine Lube	Oil	19,800	CE-522	Precipitator
		Oil Tanks 1-5		gal/hr		
SEP-539	EU-539	Co-gen Turbine Lube	Oil	2,810	CE-539	Precipitator
		Oil Tank No. 6		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.

### Table Co-Gen 49. Emission Limits.

EP	EU	Opacity	Permit #
SEP-522	EU-522	10%	LCPH ATI 4092 / PTO 4035
SEP-539	EU-539	10%	LCPH ATI 4093 / PTO 4293

#### Table Co-Gen 50. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-522	EU-522	Opacity	20%	LCO 10.7
SEP-539	EU-539	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"

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

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

#### **Control Device:**

A Smog-Hog Air Cleaning System (SH-10-PE-XB for SEP-539) shall be used to control particulate emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4092 / PTO 4035

LCPH ATI 4093 / PTO 4293

### **Operating Limits:**

A. The oil tank SEP-539 shall not exceed 2810 gallons.

Authority for Requirement: LCPH ATI 4093 / PTO 4293

# **Operating Condition Monitoring and Recordkeeping:**

A. A log of operation shall be maintained for the operation of SEP-539.

- B. Amount of oil consumed tracked on a 12-month rolling total.
- C. All monitors shall be easily accessible to air pollution personnel.
- D. 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 Linn County AQD and other federal or state air pollution regulatory agencies and/or their authorized representatives.

Authority for Requirement: LCPH ATI 4093 / PTO 4293

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Co-Gen 51.

		Stack Characteristics				
		Stack		Stack		Exhaust
	LCPH	Height		Opening	Exhaust	Flow
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate
EP	Numbers	ground)	Style	dia.)	(°F)	(scfm)
SEP-522	4092 / 4035	23	Horizontal	10	140	850
SEP-539	4093 / 4293	20	Horizontal	12	140	132

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

#### **Monitoring Requirements**

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

#### **Opacity Monitoring:**

The facility shall check the opacity monthly 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 >10 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Agency Approved Operation & Maintenance Plan Required?	Yes No No
Facility Maintained Operation & Maintenance Plan Required?	Yes 🖾 1 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.

<sup>&</sup>lt;sup>1</sup> Facility maintained operation & maintenance plan is required for PM and PM<sub>10</sub> for SEP-522 only.

**Emission Point ID Number: SEP-530** 

**Process Area: COGENERATION** 

**Table Co-Gen 52. Emission Point Description.** 

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
SEP-530	EU-530A	Co-Gen Boiler No. 5	Coal	1500 MMBtu/hr
SEP-530	EU-530AN	Co-Gen Boiler No. 5	Natural Gas	0.28 MMCF/hr
SEP-530	EU-530AF	Co-Gen Boiler No. 5	Fuel Oil	

Table Co-Gen 53. Associated Equipment.

EP	EU	CE ID	CE Description	ME ID
SEP-530	EU-530A	CE-530A	Baghouse	ME-530A, ME-530B,
		CE-530B	Selective Non-Catalytic Reduction	ME-530C, ME-530D,
		CE-530C	Limestone Injection	ME-530E, ME-530F
SEP-530	EU-530AN	CE-530A	Baghouse	ME-530A, ME-530B,
				ME-530C, ME-530D,
				ME-530E, ME-530F

# **Applicable Requirements**

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

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

Table Co-Gen 54. Opacity Emission Limits.

EP	Opacity	Authority for Requirement
SEP-530	20%, 6-minute average <sup>1</sup> except for	DNR PSD Permit #98-A-507-P2
	one 6-minute period per hour of not	40 CFR §60.43b(f) Subpart Db
	more than 27%	40 CFR §60.46b(a) Subpart Db
		567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)
SEP-530	20%	LCPH ATI 5096 / PTO 5045
		LCO 10.7

Table Co-Gen 55. Particulate Matter Emission Limits.

EP	Particulate Matter	$PM_{10}^{3}$	Authority for Requirement
SEP-530	0.015 lb/MMBtu <sup>2</sup>	0.03 lb/MMBtu <sup>2</sup>	DNR PSD Permit #98-A-507-P2
			LCPH ATI 5096 / PTO 5045
SEP-530	22 ng/J,		DNR PSD Permit #98-A-507-P2
	0.051 lb/MMBtu		LCPH ATI 5096 / PTO 5045
			40 CFR §60.43b(a)(1) Subpart Db
			40 CFR §60.46b(a) Subpart Db
			567 IAC 23.1(2)"ccc"
			LCO 10.9(2)"a"(55)

Table Co-Gen 56. Sulfur Dioxide (SO<sub>2</sub>) Emission Limits.

EP	Sulfur Dioxide (SO <sub>2</sub> )	Authority for Requirement
SEP-530	0.36 lb/MMBtu <sup>4</sup> , 92% reduction <sup>5</sup>	DNR PSD Permit #98-A-507-P2
		LCPH ATI 5096 / PTO 5045
SEP-530	674.88 lb/hr <sup>2,6,7</sup>	DNR PSD Permit #98-A-507-P2
		LCPH ATI 5096 / PTO 5045
		40 CFR §60.42b Subpart Db
		567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)
SEP-530	1.2 lb/MMBtu	40 CFR §60.42b(a), (e), (g), Subpart Db
	92% reduction of equivalent inlet SO <sub>2</sub>	40 CFR §60.45b(a) Subpart Db
	rate <sup>5</sup> , 30-day rolling average	567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)
SEP-530	1.5 lb/MMBtu when burning liquid fuel	LCO 10.12(1)"b"
SEP-530	500 ppmv	567 IAC 23.3(3)"e"
		LCO 10.12(2)

Table Co-Gen 57. Nitrogen Oxides Emission Limits.

EP	NO <sub>x</sub>	Authority for Requirement
SEP-530	0.07 lb/MMBtu <sup>8,9</sup>	DNR PSD Permit #98-A-507-P2
		LCPH ATI 5096 / PTO 5045
SEP-530	260 ng/J, 0.6 lb/MMBtu <sup>10</sup> ,	DNR PSD Permit #98-A-507-P2
	30-day rolling average	LCPH ATI 5096 / PTO 5045
		40 CFR §60.44b(a)(3) Subpart Db
		40 CFR §60.44b(h) through (i) Subpart Db
		40 CFR §60.46(a) Subpart Db
		567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)
SEP-530	86 ng/J, 0.2 lb/MMBtu <sup>10</sup> ,	40 CFR §60.44b(a)(1) Subpart Db
	30-day rolling average	40 CFR §60.44b(h) through (i) Subpart Db
		40 CFR §60.46b(a) Subpart Db
		567 IAC 23.1(2)"ccc"
		LCO 10.9(2)"a"(55)

# Table Co-Gen 58. Volatile Organic Compounds (VOC) and Carbon Monoxide (CO) Emission Limits.

Emission E	imporon Limito.				
	Volatile Organic	Carbon			
EP	Compounds (VOC)	Monoxide (CO)	Authority for Requirement		
SEP-530	0.0072 lb/MMBtu <sup>2</sup>	0.15 lb/MMBtu <sup>2</sup>	DNR PSD Permit #98-A-507-P2		
			LCPH ATI 5096 / PTO 5045		

## Table Co-Gen 59. Other Emission Limits.

EP	Fluorides	Lead	Authority for Requirement
SEP-530	0.00124	0.000228	DNR PSD Permit #98-A-507-P2
	lb/MMBtu <sup>2</sup>	lb/MMBtu <sup>11</sup>	LCPH ATI 5096 / PTO 5045

<sup>&</sup>lt;sup>1</sup> Opacity and particulate matter standards apply at all times except periods of startup, shutdown, or malfunction.

<sup>&</sup>lt;sup>2</sup> Standard is expressed as the average of 3 runs.

$$E_S = \frac{K_a H_a + K_b H_b}{H_a + H_b}$$

Where: E<sub>s</sub> is the SO<sub>2</sub> emission limit (in either ng/J or lb/MMBtu heat input)

Ka is 520 ng/J or 1.2 lb/MMBtu

 $K_b$  is 340 ng/J or 0.8 lb/MMBtu

Ha is the heat input from the combustion of coal (in either J or MMBtu)

H<sub>b</sub> is the heat input from the combustion of oil (in either J or MMBtu)

Only the heat input supplied from the combustion of coal or oil is counted. No credit is provided for the heat input from the combustion of natural gas, wood, municipal-type solids waste, or other fuels or heat input from other sources such as gas turbines, internal combustion engines, kilns, etc. This limit is a 30-day rolling average and applies at all times including periods of startup, shutdown, and malfunction.

<sup>8</sup> This standard is a 30-day rolling average that includes all periods of operation except for cold startup periods. A cold startup period is defined as that period of time when a coal-fired co-gen boiler is proceeding to increase the temperature in the lower combustor from less than 400°F to at least 1,500°F. This period shall last no more than forty-eight (48) hours and NO<sub>x</sub> emissions data from this period shall be excluded when determining compliance with the permitted emission limit. Ammonia injection shall begin as soon as the lower combustor temperature reaches 1,500°F and the cold startup period will end at this time. All data from cold startup periods after the first fourty-eight (48) hours, or while ammonia is injected in the boiler, will be included in determining compliance with the optimized limit.

<sup>9</sup> This emission limit is waived for the specific SNCR optimization study activity as detailed in "Operating Limits" not to extend more than 380 days after the Initial Compliance Demonstration of "Initial Performance Testing Requirements."

<sup>10</sup> Per 40 CFR §60.44b(h) and 40 CFR §60.44(i), the limit is a 30-day rolling average that includes periods of startup, shutdown, and malfunction.

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

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

#### **Control Device:**

Limestone injection shall be used to control SO<sub>2</sub> emissions, SNCR shall be used to reduce NO<sub>x</sub> emissions, a baghouse shall be used to control particulate matter, and combustion controls shall be used to reduce VOC and CO emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes,

 $<sup>^3</sup>$  All particulate matter emissions after the baghouse were assumed to be  $PM_{10}$  for dispersion modeling purposes.

<sup>&</sup>lt;sup>4</sup> This standard is a 30-day rolling average that includes periods of startup, shutdown, and malfunction.

<sup>&</sup>lt;sup>5</sup> This reduction is in the equivalent inlet SO<sub>2</sub> emission rate. The equivalent inlet SO<sub>2</sub> emission rate means the stack emissions (on a lb/MMBtu heat input basis) that would result from the combustion of "as fired" fuels in the boiler without SO<sub>2</sub> absorption, assuming 100% conversion of sulfur in the fuels to SO<sub>2</sub>.

<sup>&</sup>lt;sup>6</sup> Emission rate used to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS).

<sup>&</sup>lt;sup>7</sup> SO<sub>2</sub> emission limit is determined by the following formula:

<sup>&</sup>lt;sup>11</sup> This standard is a three (3) month average.

monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5096 / PTO 5045

# 30-Day Rolling NO<sub>x</sub> and SO<sub>2</sub> Emission Limits Compliance:

The initial performance tests using a Continuous Emission Monitoring System (CEMS) shall be conducted over the first 30 consecutive boiler operating days. The first day of these tests shall be completed within 30 days after achieving maximum production rate but no later than 180 days after initial startup of the facility.

For the initial 30-day rolling average compliance test, NO<sub>x</sub> and SO<sub>2</sub> from the boiler shall be monitored for 30 consecutive boiler operating days. The 30-day average emission limit shall be calculated as the average of all valid hourly emission rate data recorded by the CEMS during the 30-day test period.

The owner/operator shall use all valid hourly stack emission data recorded by the SO<sub>2</sub> CEM in conjunction with the corresponding gross heat input rate obtained through daily FSA to calculate each hourly emissions of SO<sub>2</sub> in pounds per hour (lb/hr). The lb/hr emission data shall be incorporated into the quarterly report submitted to the Department.

Authority for Requirement: DNR PSD Permit #98-A-507-P2

LCPH ATI 5096 / PTO 5045

#### **30-Day Rolling SO<sub>2</sub> Percent Reduction Compliance:**

If only coal is combusted, the procedures specified in §60.45b(c)(2) shall apply.

If coal is combusted with other fuels, the procedures specified in §60.45b(c)(3) shall apply.

The initial performance tests using a CEMS and a Fuel Sampling Analysis (FSA) system shall be conducted over the first 30 successive boiler operating days. The first day of tests shall be completed within 30 days after achieving maximum production rate but no later than 180 days after initial startup of the facility. Performance tests using CEMS cannot be conducted until each CEMS is certified and accepted by the IDNR for such purposes.

The owner shall use all valid hourly stack emissions data recorded by the CEMS in conjunction with the corresponding equivalent inlet SO<sub>2</sub> rate to calculate each hourly percent SO<sub>2</sub> reduction achieved by each boiler. The 30-day average percent SO<sub>2</sub> reduction shall be calculated as the average of all valid hourly percent reduction values collected during 30 consecutive boiler operating days during which the 92 percent reduction requirements applies. All valid emission data, including valid data collected during periods of startup, shutdown and malfunction, shall be used in the calculation.

A boiler operating day means any 24-hour period beginning at 7:00 a.m. and continuing to 7:00 a.m. the following day, during which any amount of fuel is combusted in the boiler. It is not necessary for fuel to be combusted continuously for the entire 24-hour period to qualify as a boiler operating day. Valid data includes any data collected during any period of fuel combustion and at all operating times.

Authority for Requirement: DNR PSD Permit #98-A-507-P2

LCPH ATI 5096 / PTO 5045

#### **NSPS and NESHAP Applicability:**

This emission unit is subject to Subparts A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19) and Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR §60.40b-40 CFR §60.49b) of the New Source Performance Standards (NSPS).

This emission unit is subject to Subparts A (General Provisions, 40 CFR §63.1 – 40 CFR §63.15) and DDDDD (National Emission Standard for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR §63.7480 – 40 CFR §63.7575) of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Authority for Requirement: DNR PSD Permit #98-A-507-P2

LCPH ATI 5096 / PTO 5045

### **Operating Limits:**

Operating limits for this emission source are:

- A. The fuel combusted shall be limited to gas (for startup), oil (for startup), coal and less than 20% of blends of alternative fuels.
- B. The alternative fuels combusted are limited to petroleum coke, tire derived fuel (TDF), wood derived fuels, corn gluten feed, corn germ, dried wastewater treatment biomass (from ADM's Cedar Rapids and Clinton facilities only), oat hulls, shell corn, seed corn, and corn screenings.
- C. The owner or operator must receive an approval from the IDNR central office before a fuel other than specified above is combusted in the boilers. The IDNR shall reevaluate the fuel and may impose best available control technology (BACT) emission standards (including a percent reduction requirement) for the fuel type (or combination) in question. Other PSD-related procedures (e.g., dispersion modeling studies) may also be required.
- D. The owner/operator shall conduct a study on the boiler to determine the optimized performance of the SNCR system within one year after the startup date. The Department shall review the optimization study and revise the NO<sub>x</sub> emission limit as the Department determines is appropriate so as to reflect optimized performance of the SNCR system as indicated by the SNCR percent NO<sub>x</sub> reduction for the various operating conditions tested. The Department will include a margin of up to twenty percent (20%) to provide for excess emissions over an averaging period adequate to reflect the variability of the operating parameters the Department determines have the dominant impact on emission rates (it is anticipated that this adjustment will not exceed the "provisionally guaranteed" 0.12 lb/MMBtu). Prior to initiating the study, ADM shall submit a detailed study plan for the IDNR approval including the specific dates of the optimization study and the boiler operation conditions to be tested. The optimization study shall monitor and record, but not limited to, the following items:
  - 1. Reagent injection rates;
  - 2. Boiler NO<sub>x</sub> prior to injection;
  - 3. Reagent injection to boiler NO<sub>x</sub> ratios;
  - 4. Boiler temperature;
  - 5. CO, SO<sub>2</sub>, and chlorine levels prior to injection;
  - 6. Boiler load in MMBtu/hr and percent of rated capacity;
  - 7. Steam generation rate;

- 8. Bed calcium to sulfur ratios;
- 9. Fuel type, percent ash and percent sulfur;
- 10. NO<sub>x</sub> emission rate;
- 11. SNCR NO<sub>x</sub> emission reduction, in percent;
- 12. Ammonia emission rates; and
- 13. Opacity
- E. This information shall be collected or calculated hourly during the study unless otherwise specified in the detailed study plan to be submitted by ADM as approved by the IDNR. In addition, at least three separate visible emission tests shall be conducted for each set of operation/injection condition identified for the study.
- F. Within one year after beginning operation, the optimization study data and report shall be submitted to the IDNR.
- G. ADM shall submit a summary of study activities with the Quarterly CEM reports covering the same time period as the CEM report.
- H. The owner shall furnish the IDNR written reports as follows:
  - 1. Initial Compliance Demonstration Reports required in "Initial Performance Testing Requirements."
  - 2. CEMS performance evaluation.
  - 3. The maximum heat input capacity data from the demonstration of the boiler's maximum heat input capacity.
  - 4. The owner shall submit a written emissions report to the IDNR central office each calendar quarter. Reports shall be submitted to the IDNR postmarked no later than 30 days after the end of the calendar quarter starting with the quarter in which initial startup of the boiler occurs. The report shall include the following:
    - a. Calendar dates covered by the report;
    - b. Dates and hours of startup, shutdown or malfunction;
    - c. Type, quality and quantity of fuel combusted;
    - d. Each hourly SO<sub>2</sub> and NO<sub>x</sub> emissions, a summary of excess opacity emissions and diluent gas emission rate, as well as each operating day's 30-day average SO<sub>2</sub> and NO<sub>x</sub> emission rate and percent SO<sub>2</sub> reduction determined during the reporting period;
    - e. Each instance of excess emissions and of non-standard or manual data collection and how those data were collected, where data was excluded, exceeded full span of CEMS or was not available for any other reason, together with reasons for each of these instances of noncompliance and a description of the corrective actions taken, and any statistics required pursant to 40 CFR §60.49b(m);
    - f. "F" factor, method of determination and fuel description;
    - g. Description of any modification to the CEMS and its potential effect on CEMS performance;
    - h. Results of daily CEMS drift test and quarterly accuracy assessments and related data as required under 40 CFR Part 60, Appendix F;
    - i. Coal sampling and analysis results; and
    - j. Lead (Pb) quarterly test results.

- I. The owner or operator shall record the amounts of each fuel combusted during each day and calculate a new annual capacity factor for each fuel type at the end of each calendar month as specified in 40 CFR §60.49b(d).
- J. The owner or operator shall record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually according to 40 CFR §60.49b(d).
- K. The owner or operator shall record the net actual electrical output to any utility power distribution system for sale annually, calculated as an average over any three (3) calendar year period.
- L. The owner or operator shall furnish the IDNR with final detailed plans and specifications for all emission control equipment selected by the owner to meet the emission limits contained in "Emission Limits." This information shall be submitted to the IDNR at least 30 days in advance of construction of any control equipment.

Authority for Requirement: DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045

## **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. These records shall show the following:

- A. The owner or operator shall maintain a record of periods of startup, shutdown, or malfunction. Operating hours shall be averaged on a 12-month basis rolled over monthly.
- B. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate a new annual capacity factor for each fuel type at the end of each calendar month as specified in 40 CFR §60.49b(d).
- C. The owner or operator shall maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually according to 40 CFR §60.49b(d).
- D. The owner or operator shall maintain records of the net actual electrical output to any utility power distribution system for sale annually, calculated as an average over any three (3) calendar year period.

Authority for Requirement: DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045

E. Recordkeeping for NESHAP Subpart DDDDD shall be done according to 40 CFR §63.7555 and 40 CFR §63.7560.

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F. Reporting for NESHAP Subpart DDDDD shall be done according to 40 CFR §63.7545 and 40 CFR §63.7550.

Authority for Requirement: LCPH ATI 5096 / PTO 5045

## **Continuous Emission Monitoring and Fuel Sampling Analysis:**

A. SO2 and NOx

The owner shall continuously demonstrate compliance with the SO<sub>2</sub> and NO<sub>x</sub> emission limitations and SO<sub>2</sub> percent reduction requirements of this permit through the use of a CEMS and a FSA system. These systems shall be installed, operating and calibrated prior to beginning the initial compliance demonstration set forth according to 40 CFR §60.13.

Compliance with the SO<sub>2</sub> and NO<sub>x</sub> emission rate limitations and the SO<sub>2</sub> percent reduction requirements shall be calculated as the average of all valid hourly emission rate data and valid hourly SO<sub>2</sub> percent reduction data for the 30 previous boiler operating days during which each standard applies. The owner shall calculate a new 30-day average at the end of each boiler operating day.

Unless otherwise approved by the Department, the selection of the CEMS span value (maximum data display output) for each parameter shall be those specified in 40 CFR Part 60 Subpart Db.

In addition to the provisions of 40 CFR Part 60, Appendix B, the performance specifications applicable to the CEMS required by the permit shall include a data recovery requirement of 90% and shall meet precision and accuracy requirements of 10% and 10% of the applicable standard, respectively, unless otherwise specified in the permit. When the minimum data requirements of the permit cannot be obtained, the methods and procedures of 40 CFR §60.47b(c) and §60.48b(f) shall be employed by the owner to obtain the required data.

Authority for Requirement: DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045

#### A.1. 30-Day Rolling NOx and SO2 Emission Limit Compliance

The owner shall install, calibrate, operate, maintain, audit, and record the output from CEMS capable of measuring SO<sub>2</sub>, NO<sub>x</sub>, and the appropriate diluent gas (oxygen or carbon dioxide). The CEMS shall be installed, calibrated, operated, maintained, and audited. Data shall be recorded in accordance with the provisions found at 40 CFR §60.13 (Monitoring Requirements); 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3 (Specification and Test Procedures for SO<sub>2</sub>, NO<sub>x</sub>, and diluent CEMS); and 40 CFR Part 60, Appendix F (Quality Assurance Requirements for Gas CEMS Used for Compliance Determinations), as adopted by the Department by reference.

The CEMS shall be operated and data recorded during any period any fuel is combusted in the boiler. Hourly parts-per-million data recorded by the pollutant CEMS shall be converted to pound of pollutant per million BTU (lb/MMBtu) heat input using the equations and methodology specified in 40 CFR Part 60, Appendix A, Method 19 (as it appears in the July 1, 1997, Code of Federal Regulations). Hourly emission rate data shall be recorded and used by the owner/operator to calculate compliance with the applicable emission rates and percent reductions for the specified averaging times.

The owner shall successfully complete SO<sub>2</sub> and NO<sub>x</sub> CEMS performance evaluations including relative accuracy and calibration drift assessment evaluations prior to beginning the initial compliance demonstration.

The owner shall notify the IDNR central office at least 30 days in advance of conducting any relative accuracy test.

Authority for Requirement: DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045

### A.2. SO2 Percent Reduction Compliance

The owner shall install, calibrate, operate, and maintain a FSA system to collect "as-fired" fuel data. The FSA system shall meet or exceed the design and performance specifications set forth in 40 CFR Part 60, Appendix A, Method 19 (incorporating by reference ASTM Method D2234-76, et al).

Analyses shall be performed for weight percent sulfur (%S) and gross heat value (GHV, expressed in BTU/lb-fuel). The owner may develop an in-house fuel analysis program or may send collected samples to a laboratory for analysis. In either case, the analytical results shall be available to the proposed boiler operator within 72 hours of the sample collection time.

The "as-fired" fuel data shall be used to determine the equivalent hourly average SO<sub>2</sub> inlet rate to the boiler, and shall be used in conjunction with the SO<sub>2</sub> CEMS emission rate data to determine compliance with the SO<sub>2</sub> 30-day rolling percent reduction limit.

The owner shall calculate an equivalent SO<sub>2</sub> rate for each bunker using the weight percent sulfur and the gross heating value obtained through daily FSA, using the equation specified in 40 CFR Pat 60, Appendix A, Method 19, Section 5.3.2, Equations 19 through 24.

If the equivalent inlet SO<sub>2</sub> rates for fuel contained in each day bunker which feeds to a single boiler differ by 0.2 lb-SO<sub>2</sub>/MMBtu heat input or less, the arithmetic average of the two equivalent SO<sub>2</sub> inlet rates shall be used as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operation day. Otherwise, the owner shall: (1) use the smaller of the two equivalent SO<sub>2</sub> inlet rates as the "equivalent hourly average SO<sub>2</sub> inlet rate" for each hourly percent reduction calculation during the boiler operating day, or (2) calculate an "equivalent hourly average SO<sub>2</sub> inlet rate" for each hour of operation using the following heat input weighted equation:

Equivalent Hourly Average 
$$SO_2$$
 Inlet Rate = 
$$\frac{(W_1 * \%S_1 + W_2 * \%S_2)}{(W_1 * GHV_1 + W_2 * GHV_2)} * K$$

Where:

 $W_1$  = Tons of coal fed to first of paired day bunkers during hour

 $W_2$  = Tons of coal fed to second of paired day bunkers during hour

 $%S_1 = Weight percent sulfur of coal contained in first bunker$ 

 $%S_2$  = Weight percent sulfur of coal contained in second bunker

 $GHV_1$  = Gross heating value of coal contained in first bunker

 $GHV_2 = Gross heating value of coal contained in second bunker$ 

$$K = 20,000 \frac{(lb * BTU)}{(\% * mmBTU)}$$

Authority for Requirement: DNR PSD Permit #98-A-507-P1 LCPH ATI 3737 / PTO 4740

#### B. Opacity

A continuous monitoring system for measuring the opacity of emissions discharged into the atmosphere from the boiler shall be operated and maintained during all periods of operation of the boiler, except for continuous monitoring system breakdowns and repairs. Operation shall be

in conformance with 40 CFR §60.48b, which includes recording the output of the system. Reporting and recordkeeping requirements shall be in conformance with 40 CFR §60.49b, which shall include filing a quarterly report of excess emissions as outlined therein.

Authority for Requirement: DNR PSD Permit #98-A-507-P2

LCPH ATI 5095 / PTO 5045

*C. Lead* (*Pb*)

Fuel samples shall be analyzed for lead (Pb) and the results submitted in writing to the DNR on a quarterly basis. Fuel sampling shall be conducted as specified under "SO<sub>2</sub> Percent Reduction Compliance." Sample analysis for Lead (Pb) shall be performed as specified in SW-846 Method 6010. The quarterly testing results shall be reported as specified under "Operating Limits."

Authority for Requirement: DNR PSD Permit #98-A-507-P2

LCPH ATI 5096 / PTO 5045

# **NSPS General Requirements:**

This boiler is subject to 40 CFR Part 60 Subpart Db, Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units. .

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. 40 CFR §60.7(b)

The permittee shall submit an excess emissions and monitoring systems performance report to the Department and Administrator in accordance with 40 CFR §60.7(c). The summary report form shall contain the information and format required in 40 CFR §60.7(d).

Notwithstanding the frequency of reporting requirements in the prior permit conditions, the permittee may reduce the frequency of reporting of excess emissions and monitoring system performance reports pursuant to 40 CFR §60.7(e).

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR §60.12

Authority for Requirement: 567 IAC 23.1(2)

## **Existing Large Solid Fuel Subcategory:**

These emission units are subject to 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 DDDDD - NESHAP for Major Sources: Industrial, Commercial, and Institutional

Boilers and Process Heaters (40 CFR §63.7480 through 40 CFR §63.7575).

Authority for requirement: NESHAP Subpart A

**NESHAP Subpart DDDDD** 

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 412.5 Discharge Style: Vertical, unobstructed Stack Opening, (inches, diameter): 144

Exhaust Temperature (°F): 310 Exhaust Flow Rate (scfm): 320,400

Authority for Requirement: DNR PSD Permit #98-A-507-P2

LCPH ATI 5096 / PTO 5045

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

#### **Monitoring Requirements**

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

# **Stack Testing:**

Stack testing is not required at this time.

**Continuous Emissions Monitoring:** 

Pollutant:	Sulfur Dioxide (SO <sub>2</sub> )
Continuous Emissions Monitor ID:	ME-530A
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60 Appendix F
Reporting & Recordkeeping:	40 CFR Part 60 Appendix A and B
Authority for Requirement:	DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045 40 CFR §60.47b Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Nitrogen Oxides (NO <sub>x</sub> )
Continuous Emissions Monitor ID:	ME-530B
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60 Appendix F
Reporting & Recordkeeping:	40 CFR Part 60 Appendix A and B
Authority for Requirement:	DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045 40 CFR §60.48b Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Opacity
Continuous Emissions Monitor ID:	ME-530C
Operational Specifications:	40 CFR §60.13 and 40 CFR §60.45
Date of Most Recent System Calibration & Quality Assurance:	March 2, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60
Reporting & Recordkeeping:	40 CFR Part 60
Authority for Requirement:	DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045 40 CFR §60.48b Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

# **Other Parameters:**

Pollutant:	Diluent Gas (Oxygen)
Continuous Emissions Monitor ID:	ME-530D
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	May 5, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60 Appendix F
Reporting & Recordkeeping:	40 CFR Part 60 Appendix A and B
Authority for Requirement:	DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045 40 CFR §60.47b, §60.48b Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Flow
Continuous Emissions Monitor ID:	ME-530E
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	February 24, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60 Appendix F
Reporting & Recordkeeping:	40 CFR Part 60 Appendix B
Authority for Requirement:	DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045 40 CFR Part 60 Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

Pollutant:	Diluent Gas (Carbon Dioxide)
Continuous Emissions Monitor ID:	ME-530F
Operational Specifications:	40 CFR Part 60
Date of Most Recent System Calibration & Quality Assurance:	February 24, 2016
Ongoing System Calibration/Quality Assurance:	40 CFR Part 60 Appendix F
Reporting & Recordkeeping:	40 CFR Part 60 Appendix A and B
Authority for Requirement:	DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045 40 CFR §60.47b, §60.48b Subpart Db 567 IAC 23.1(2)"ccc" LCO 10.9(2)"a"(55)

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 🔀 1 No 🗌

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

The SO<sub>2</sub> and NO<sub>X</sub> potentials to emit trigger Agency-approved operation & maintenance plans; however, existing CEMS at this emission point meet or exceed the Agency-approved operation & maintenance plan requirements for these pollutants.

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring is required for PM<sub>10</sub> and an agency approved operation and maintenance plan is required for PM; however, as PM and PM<sub>10</sub> are controlled by the same equipment, and CAM is more stringent, the agency approved operation and maintenance plan requirement has been waived.

Emission Point ID Number: SEP-532, SEP-533, SEP-535, SEP-536

**Process Area: COGENERATION** 

Table Co-Gen 60. Associated Equipment.

		• •	Raw			
			Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-532	EU-532	Fly Ash Conveying	Fly Ash	30 ton/hr	CE-532	Baghouse
		System D				
SEP-533	EU-533	Fly Ash Conveying	Fly Ash	30 ton/hr	CE-533	Baghouse
		System F				_
SEP-535	EU-535	Bed Ash Conveying	Bed Ash	7 ton/hr	CE-535	Baghouse
		System D				_
SEP-536	EU-536	Bed Ash Conveying	Bed Ash	7 ton/hr	CE-536	Baghouse
		System E				

# **Applicable Requirements**

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

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

Table Co-Gen 61. Emission Limits.

				Particulate	
EP	EU	Opacity	PM <sub>10</sub>	Matter	Permit #
SEP-532	EU-532	10%	0.01		DNR PSD Permit #98-A-509-PS1
			gr/dscf		LCPH ATI 3735 / PTO 4739
SEP-532	EU-532			0.01 gr/dscf	LCPH ATI 3735 / PTO 4739
SEP-533	EU-533	10%	0.01		DNR PSD Permit #98-A-510-PS1
			gr/dscf		LCPH ATI 3734 / PTO 4738
SEP-533	EU-533			0.01 gr/dscf	LCPH ATI 3734 / PTO 4738
SEP-535	EU-535	10%	0.01		DNR PSD Permit #98-A-512-PS1
			gr/dscf		LCPH ATI 3732 / PTO 4736
SEP-535	EU-535			0.01 gr/dscf	LCPH ATI 3732 / PTO 4736
SEP-536	EU-536	10%	0.01		DNR PSD Permit #98-A-512-PS1
			gr/dscf		LCPH ATI 3731 / PTO 4735
SEP-536	EU-536			0.01 gr/dscf	LCPH ATI 3731 / PTO 4735

## Table Co-Gen 62. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-532	EU-532	Opacity	20%	LCO 10.7
SEP-533	EU-533	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
SEP-535	EU-535		_	LCO 10.9(1)"a"
SEP-536	EU-536			

# **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 3735 / PTO 4739

LCPH ATI 3734 / PTO 4738 LCPH ATI 3732 / PTO 4736 LCPH ATI 3731 / PTO 4735

# **Operating Condition Monitoring and Recordkeeping:**

No operating limits are required for this emission point at this time.

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

#### Table Co-Gen 63.

		Stack Characteristics				
EP	LCPH ATI / PTO Numbers	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flow Rate (acfm)
SEP-532	3735 / 4739	160	Vertical, unobstructed	16	140	5,363
SEP-533	3734 / 4738	160	Vertical, unobstructed	16	140	5,363
SEP-535	3732 / 4736	160	Vertical, unobstructed	14	140	3,478
SEP-536	3731 / 4735	160	Vertical, unobstructed	14	140	3,478

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

# **Monitoring Requirements**

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

#### **Stack Testing:**

The following stack tests shall be performed:

Pollutant – Particulate Matter (PM<sub>10</sub>)<sup>1</sup>
1<sup>st</sup> Stack Test to be Completed by – within first two years of permit term Test Method – Method 201A with 202 (40 CFR Part 51, Appendix M) Authority for Requirement – 567 IAC 22.108(3)

# **Opacity Monitoring:**

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 >10% 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(3)

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ⊠¹ No □

Authority for Requirement: 567 IAC 22.108(3)

Refer to Appendix B, CAM Plans, for the complete compliance assurance monitoring plan.

<sup>&</sup>lt;sup>1</sup> Stack testing for PM10 is required for only one of the Fly Ash Conveying Systems (SEP-532 or SEP-533), and only one of the Bed Ash Conveying Systems (SEP-535 or SEP-536) to be considered representative of emissions and compliance from all four emission points. If the test results for any pollutant are 90% or above of the applicable standard, additional testing will be required of the other emission point of the same type. A test protocol must be approved by the Department's stack testing personnel prior to testing.

<sup>&</sup>lt;sup>1</sup> Compliance Assurance Monitoring is required for PM and a facility maintained operation and maintenance plan is required for PM<sub>10</sub>; however, because PM and PM<sub>10</sub> are controlled by the same equipment, and CAM is more stringent, the facility maintained operation and maintenance plan requirement has been waived.

**Emission Point ID Number: SEP-537** 

**Process Area: COGENERATION** 

Table Co-Gen 64. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-537	EU-537	Coal Bunker	Coal	600 ton/hr	CE-537	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.

#### Table Co-Gen 65. Emission Limits.

				Particulate	
EP	EU	Opacity	$PM_{10}$	Matter	Permit #
SEP-537	EU-537	10%	0.01		DNR PSD Permit #98-A-514-P2
			gr/dscf		LCPH ATI 5945 / PTO 6055
SEP-537	EU-537			0.01 gr/dscf	LCPH ATI 5945 / PTO 6055
SEP-537	EU-537		2.14	2.14 lb/hr	LCPH ATI 5945 / PTO 6055
			lb/hr		

#### Table Co-Gen 66. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-537	EU-537	Opacity	20%	40 CFR §60.252(c) Subpart Y
				567 IAC 23.1(2)"v"
				LCO 10.9(2)"a"(22)
				LCO 10.7
		PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"

## **Operational Limits & Requirements**

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

#### **Control Device:**

A baghouse shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5945 / PTO 6055

## NSPS and NESHAP Applicability:

This emission unit is subject to 40 CFR Part 60 Subpart Y – Standards of Performance for Coal Preparation Plants.

This emission unit is subject to 40 CFR Part 60 Subpart A – General Provisions.

This emission unit is not subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

Authority for Requirement: DNR PSD Permit #98-A-514-P2

LCPH ATI 5945 / PTO 6055

## **NSPS Requirements:**

These units are subject to 40 CFR Part 60 NSPS Subpart Y, Standards of Performance for Coal Preparation Plants.

The opacity standard shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. 40 CFR §60.11(c)

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 CFR §60.11(d)

The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 40 CFR §60.12

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

# **Operating Limits:**

- A. The pressure drop across the baghouse, CE-537, shall be maintained between 0.5 and 8.0 inches of water.
- B. The control equipment shall be maintained according to the manufacturer's specifications and good operating practices.

Authority for Requirement: DNR PSD Permit #98-A-514-P2

# **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record "no visible emissions" observations on a weekly basis. An exceedance of "no visible emissions" will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Pressure drop readings across the baghouse, CE-537, shall be recorded on a weekly basis while the control equipment is in operation.

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C. Record all maintenance and repairs completed to the control equipment.

Authority for Requirement: DNR PSD Permit #98-A-514-P2

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 195 Discharge Style: Vertical, unobstructed Stack Opening, (diameter, inches): 24

Exhaust Temperature (°F): 70 Exhaust Flow Rate (acfm): 25,000

Authority for Requirement: DNR PSD Permit #98-A-514-P2

LCPH ATI 5945 / PTO 6055

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

#### **Monitoring Requirements**

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

## **Stack Testing:**

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >10 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

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)

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**Emission Point ID Number: SEP-542, SEP-543** 

**Process Area: COGENERATION** 

Table Co-Gen 67. Associated Equipment.

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID	CE Description
SEP-542	EU-542	Cogen Biomass Bin	Biomass	16,000	CE-542	Baghouse
		#1		gal/hr		
SEP-543	EU-543	Cogen Biomass Bin	Biomass	16,000	CE-543	Baghouse
		#2		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.

#### Table Co-Gen 68. Emission Limits.

	EP	EU	PM <sub>10</sub>	Particulate Matter	Permit #
Ī	SEP-542	EU-542	0.21 lb/hr	0.21 lb/hr	LCPH ATI 5332 / PTO 5479
	SEP-543	EU-543			LCPH ATI 5333 / PTO 5480

# **Table Co-Gen 69. General Emission Limits.**

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-542	EU-542	Opacity	20%	LCO 10.7
SEP-543	EU-543	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"

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

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

#### **Control Device:**

A baghouse shall be installed to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in 'Operating Condition Monitoring and Recordkeeping' shall be installed, maintained, and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5332 / PTO 5479 LCPH ATI 5333 / PTO 5480

#### **Operating Limits:**

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

A. Pressure drop across the baghouse (CE-542, CE-543) shall be maintained between 0.5 inches of water column to 6.0 inches of water column.

B. The control equipment on this unit shall be maintained and operated according to the manufacturer's specifications and good operating practices.

Authority for Requirement: LCPH ATI 5332 / PTO 5479

LCPH ATI 5333 / PTO 5480

# **Operating Condition Monitoring and Recordkeeping:**

Unless not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Monitor and record pressure drop across the control equipment (CE-542, CE-543) on a weekly basis while the emission unit is in operation.
- C. Monitor and record any maintenance and repair completed on the control equipment.

Authority for Requirement: LCPH ATI 5332 / PTO 5479

LCPH ATI 5333 / PTO 5480

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Table Co-Gen 70.

		Stack Charact	Stack Characteristics				
				Stack		Exhaust	
	LCPH	Stack Height		Opening	Exhaust	Flow	
	ATI / PTO	(feet, above	Discharge	(inches,	Temp.	Rate	
EP	Numbers	ground)	Style	dia.)	(°F)	(acfm)	
SEP-542	5332 / 5479	73	Vertical,	6	80	1,200	
			unobstructed				
SEP-543	5333 / 5480	73	Vertical,	6	80	1,200	
			unobstructed				

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

#### **Monitoring Requirements**

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

#### **Stack Testing:**

Stack testing is not required at this time.

# **Opacity Monitoring:**

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 that reading. Maintain a written record of 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 8 hours from the observation of visible emissions. If corrective action does not return the observation to 'no visible emissions,' then a Method 9 observation will be required.

If an opacity > 20% is observed, this would be a violation, and corrective action will be taken as soon as possible, but no later than 8 hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes No 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)

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<sup>&</sup>lt;sup>1</sup> Facility maintained operation and maintenance plan is required for PM.

**Emission Point ID Number: SEP-544** 

**Process Area: COGENERATION** 

Table Co-Gen 71. Associated Equipment.

		ssociated Equipmen				
			Raw			
			Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-544	EU-544	Cogen Limestone	Limestone	250 ton/hr	CE-544A	Cartridge
		Conveying Dust		(each)	CE-544B	Filters
		Collector			CE-544C	
					CE-544D	

# **Applicable Requirements**

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

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

#### Table Co-Gen 72. Emission Limits.

ED	TELL	DN/ 10	Particulate No. 44	D 2411
EP	EU	PM-10	Matter	Permit #
SEP-544	EU-544	0.005 gr/dscf	0.005 gr/dscf	LCPH ATI 6284 / PTO 6266
		0.17 lb/hr	0.17 lb/hr	

#### Table Co-Gen 73. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-544	EU-544	Opacity	20%	LCO 10.7
		PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"

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

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

#### **Control Device:**

A cartridge filter shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors, and gauges needed to measure the parameters outlined in 'Operating Condition Monitoring and Recordkeeping' shall be installed, maintained, and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 6284 / PTO 6266

## **Operating Limits:**

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

A. The pressure drop across each of the cartridge filters (CE-544A, CE-544B, CE-544C, and CE-544D) shall be maintained between 0.25 and 5.0 inches of water.

B. The control equipment shall be maintained according to the manufacturer's specifications and good operating practices.

Authority for Requirement: LCPH ATI 6284 / PTO 6266

# **Operating Condition Monitoring and Recordkeeping:**

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

- A. The owner or operator shall monitor and record 'no visible emissions' observations on a weekly basis. An exceedance of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit, make corrections to operations or equipment associated with the exceedance, and record the corrective action taken.
- B. Pressure drop reading across each of the cartridge filters (CE-544A, CE-544B, CE-544C, and CE-544D) shall be recorded on a weekly basis while the control equipment is in operation.
- C. Record all maintenance and repair completed to the control equipment.

Authority for Requirement: LCPH ATI 6284 / PTO 6266

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 155 Discharge Style: Vertical, unobstructed Stack Opening, (diameter, inches): 14

Exhaust Temperature (°F): 68 Exhaust Flow Rate (acfm): 4,000

Authority for Requirement: LCPH ATI 6284 / PTO 6266

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

#### **Monitoring Requirements**

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

# **Stack Testing:**

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 that reading. Maintain a written record of 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 8 hours from the observation of visible emissions. If corrective action does not return the observation to 'no visible emissions,' then a Method 9 observation will be required.

If an opacity > 20% is observed, this would be a violation, and corrective action will be taken as soon as possible, but no later than 8 hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for requirement: 567 IAC 22.108(14)

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

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: SEP-009** 

**Process Area: BULK CHEMICALS** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-9 Emissions Control Equipment ID Number: CE-009 Emissions Control Equipment Description: Scrubber

Emission Unit vented through this Emission Point: EU-9 Emission Unit Description: Soda Ash Slur O Lyzer

Raw Material/Fuel: Soda Ash Rated Capacity: 16,250 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): 20%

Authority for Requirement: LCPH ATI 4448 / PTO 4700

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.1 gr/dscf, 0.89 lb/hr, 3.92 tpy

Authority for Requirement: LCPH ATI 4448 / PTO 4700

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf, 0.89 lb/hr, 3.92 tpy

Authority for Requirement: LCPH ATI 4448 / PTO 4700

567 IAC 23.3(2)"a"(2) LCO 10.9(1)"a"

# **Operational Limits & Requirements**

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

#### **Control Device:**

A Venturi scrubber shall be used to control particulate emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4448 / PTO 4700

#### **Operating Limits:**

A. Water feed rate to the scrubber shall be maintained at a level not less than 17.4 gpm

B. Maximum capacity: 16,250 lb/hr

Authority for Requirement: LCPH ATI 4448 / PTO 4700

# **Operating Condition Monitoring and Recordkeeping:**

All monitors shall be easily accessible to air pollution personnel. 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 Linn County AQD and other federal or state air pollution regulatory agencies and/or their authorized representatives.

- A. A log of operation shall be maintained for the operation of the above-listed unit.
- B. Weekly pressure drop readings across scrubber.
- C. Weekly recirculation water flow rates (gpm) to the scrubber.
- D. Records of all maintenance and repair completed to the control device.

Authority for Requirement: LCPH ATI 4448 / PTO 4700

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 20

Discharge Style: Vertical

Stack Opening, (inches, diameter): 12 Exhaust Temperature (°F): 130-150 Exhaust Flow Rate (acfm): 1200

Authority for Requirement: LCPH ATI 4448 / PTO 4700

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

#### **Monitoring Requirements**

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

Stack testing is not required at this time.

#### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

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: SEP-020 Process Area: BULK CHEMICALS** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-20 Emissions Control Equipment ID Number: CE-020 Emissions Control Equipment Description: Scrubber

Emission Unit vented through this Emission Point: EU-20 Emission Unit Description: Hydrochloric Acid Storage Vent

Raw Material/Fuel: Hydrochloric Acid

Rated Capacity: 34,000 gal/hr

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: LCO 10.7

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

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

LCO 10.9(1)"a"

#### **Monitoring Requirements**

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

#### **Stack Testing**

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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)

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: SEP-033** 

**Process Area: BULK CHEMICALS** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-33 Emissions Control Equipment ID Number: CE-033 Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-33

Emission Unit Description: Bulk Precoat System

Raw Material/Fuel: Diatomaceous Earth

Rated Capacity: 33,000 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): 20%

Authority for Requirement: LCPH ATI 3981 / PTO 4034

LCO 10.7

Pollutant: PM-10

Emission Limit(s): 0.1 gr/scf, 0.86 lb/hr, 3.75 tpy

Authority for Requirement: LCPH ATI 3981 / PTO 4034

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf, 0.86 lb/hr, 3.75 tpy

Authority for Requirement: LCPH ATI 3981 / PTO 4034

567 IAC 23.3(2)"a"(2) LCO 10.9(1)"a"

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

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

#### **Operating Limits:**

Maximum equipment design rate: 33,000 lb/hr

Exhaust airflow rate: 1000 scfm

Authority for Requirement: LCPH ATI 3981 / PTO 4034

#### **Monitoring Requirements:**

The following information shall be monitored:

- A. Daily pressure drop readings
- B. All monitors shall be easily accessible to air pollution personnel.

Authority for Requirement: LCPH ATI 3981 / PTO 4034

# **Recordkeeping Requirements:**

A logbook of operation shall be maintained for this source. The following information shall be recorded and kept on-site for a period of no less than five years.

- A. Daily pressure drop readings
- B. Records of all maintenance and repair completed on the control device

These records shall be available on site for viewing by air pollution control personnel.

Authority for Requirement: LCPH ATI 3981 / PTO 4034

## **Monitoring Requirements**

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

# **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

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

**Emission Point ID Number: SEP-165 Process Area: BULK CHEMICALS** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-165

Emission Unit vented through this Emission Point: EU-165

Emission Unit Description: Plate Wash Tanks Raw Material/Fuel: Water and Rydlyme

Rated Capacity: 1000 gallons

# **Applicable Requirements**

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

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

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: LCPH ATI 4283 / PTO 4336

LCO 10.7

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

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

# **Operating Limits:**

The maximum operating capacity of this device is:

Tank Capacity: 1000 gallons each Exhaust Airflow Rate: 9500 acfm

Authority for Requirement: LCPH ATI 4283 / PTO 4336

#### **Compliance Monitoring:**

The following information shall be monitored:

- A. Airflow from this source shall not exceed 9500 acfm. Any increase in airflow would be considered a modification and would necessitate a new Authorization to Install permit.
- B. The total usage of cleaning solvents that contain VOCs or VHAPs from this source shall not exceed a yearly total of 2000 gallons calculated on a 12-month rolling average. The maximum VOC density (content) of the cleaning material shall not exceed 9 pounds per gallon. Cleaning solvents that do not contain regulated pollutants do not need to be recorded.

Authority for Requirement: LCPH ATI 4283 / PTO 4336

## **Recordkeeping Requirements:**

A log of operation shall be maintained for the facility. The following information shall be recorded and kept on-site for a period of no less than five years.

- A. The total usage of cleaning solvents that contain VOCs or VHAPs from this source shall not exceed a yearly total of 2000 gallons calculated on a 12-month rolling average. The maximum VOC density (content) of the cleaning material shall not exceed 9 pounds per gallon. Cleaning solvents that do not contain regulated pollutants do not need to be recorded.
- B. MSDSs or other documentation showing the VOC content of the cleaning solvents used must be kept with these records.
- C. These records shall be available for viewing by Air Pollution Control personnel upon request.

Authority for Requirement: LCPH ATI 4283 / PTO 4336

## **Monitoring Requirements**

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

Stack testing is not required.

Opacity monitoring is not required.

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: SEP-240, SEP-242, SEP-243, SEP-244, SEP-245, SEP-246, SEP-247 SEP-248, SEP-249

**Process Area: WASTE TREATMENT** 

Table Waste Treatment-1. Associated Equipment.

			Raw	
EP	EU	<b>EU Description</b>	Material/Fuel	Rated Capacity
SEP-240	EU-240	Equalization Basin	Wastewater	432,000 gal/hr
SEP-242	EU-242	West Aeration Basin	Wastewater	241,560 gal/hr
SEP-243	EU-243	East Aeration Basin	Wastewater	241,560 gal/hr
SEP-244	EU-244	Biototron #1	Wastewater	63,420 gal/hr
SEP-245	EU-245	Biototron #2	Wastewater	63,420 gal/hr
SEP-246	EU-246	Biototron #3	Wastewater	63,420 gal/hr
SEP-247	EU-247	East Clarifier	Wastewater	114,720 gal/hr
SEP-248	EU-248	Center Clarifier	Wastewater	114,720 gal/hr
SEP-249	EU-249	West Clarifier	Wastewater	114,720 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.

#### Table Waste Treatment-2. Emission Limits.

EP	EU	VOC	Single HAP	Total HAP	LCPH Permit #
SEP-240	EU-240	0.339 lb/hr, 1.486 tpy	9.4 tpy	24.4 tpy	ATI 4843 / PTO 5309
SEP-242	EU-242	2.90 lb/hr	-	-	ATI 5810 / PTO 5968
SEP-243	EU-243	2.90 lb/hr	-	-	ATI 5811 / PTO 5969
SEP-244	EU-244	0.184 lb/hr, 0.81 tpy	9.4 tpy	24.4 tpy	ATI 4847 / PTO 5312
SEP-245	EU-245	0.184 lb/hr, 0.81 tpy	9.4 tpy	24.4 tpy	ATI 4848 / PTO 5313
SEP-246	EU-246	0.184 lb/hr, 0.81 tpy	9.4 tpy	24.4 tpy	ATI 4849 / PTO 5314
SEP-247	EU-247	0.151 lb/hr, 0.662 tpy	9.4 tpy	24.4 tpy	ATI 4850 / PTO 5315
SEP-248	EU-248	0.151 lb/hr, 0.662 tpy	9.4 tpy	24.4 tpy	ATI 4851 / PTO 5316
SEP-249	EU-249	0.151 lb/hr, 0.662 tpy	9.4 tpy	24.4 tpy	ATI 4852 / PTO 5317

## **Operational Limits & Requirements**

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

#### **Operating Limits:**

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

A. The equalization basin is limited to a flow rate of 7,200 gpm.

Authority for Requirement: LCPH ATI 4843 / PTO 5309

## **Operating Condition Monitoring & Recordkeeping:**

A. Monitor and record the flow rate to the equalization basin on a weekly basis.

If not specified elsewhere, 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 Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Authority for Requirement: LCPH ATI 4843 / PTO 5309

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

### **Table Waste Treatment-3.**

			Stack Characteristics			
		LCPH Permit	Stack Height (feet, above	Discharge Style and Stack Opening	Exhaust Temp.	Exhaust Flow Rate
EP	EU	Numbers	ground)	(inches, dia.)	(°F)	(acfm)
SEP-240	EU-240	ATI 4843 / PTO 5309	18	Vertical, unobstructed 60' x 120'	135	650
SEP-242	EU-242	ATI 5810 / PTO 5968	5	Vertical, unobstructed 3648" x 2580"	95	8500
SEP-243	EU-243	ATI 5811 / PTO 5969	5	Vertical, unobstructed 3648" x 2580"	95	8500
SEP-244	EU-244	ATI 4847 / PTO 5312	18	Vertical, unobstructed 92'	95	7600
SEP-245	EU-245	ATI 4848 / PTO 5313	18	Vertical, unobstructed 92'	95	7600
SEP-246	EU-246	ATI 4849 / PTO 5314	18	Vertical, unobstructed 92'	95	7600
SEP-247	EU-247	ATI 4850 / PTO 5315	3	Vertical, unobstructed 66'	80	Undetermin ed
SEP-248	EU-248	ATI 4851 / PTO 5316	3	Vertical, unobstructed 66'	80	Undetermin ed
SEP-249	EU-249	ATI 4852 / PTO 5317	3	Vertical, unobstructed 66'	80	Undetermin ed

The temperature and flow rate 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 flow rate 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.

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Monitoring Requirements	
The owner/operator of this equipment shall comply with the monitoring below.	requirements listed
Stack testing is not required at this time.	
Opacity monitoring is not required at this time.	
Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🔀

Authority for Requirement: 567 IAC 22.108(3)

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

Yes 🗌 No 🖂

**Emission Point ID Number: SEP-087, SEP-089** 

**Process Area: BIOMASS PROCESSING** 

Table Biomass-1. Associated Equipment.

EP	EU	EU Description	Raw Material/Fuel	Rated Capacity
SEP-087	EU-87	Biosolids Dryer	Biosolids	4.2 ton/hr
SEP-089	EU-89	Biosolids Dryer	Biosolids	4.2 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.

### Table Biomass-2. Emission Limits.

EP	EU	SO <sub>2</sub>	Permit #
SEP-087	EU-87	500 ppmv, 1.83 lb/hr	LCPH ATI 4608 / PTO 5307
SEP-089	EU-89	500 ppmv, 1.83 lb/hr	LCPH ATI 4619 / PTO 5308

## **Table Biomass-3. General Emission Limits.**

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-087	EU-087	Opacity	20%	LCO 10.7
SEP-089	EU-089	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
				LCO 10.9(1)"a"
		PM/PM <sub>10</sub>	0.06 lb/hr	LCPH ATI 4608 / PTO 5307
				LCPH ATI 4619 / PTO 5308
		SO <sub>2</sub>	500 ppmv	567 IAC 23.3(3)"e"
				LCO 10.12(2)

# **Operational Limits & Requirements**

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

## **Operating Limits:**

The biomass dryers, emission points 87 and 89, shall vent into the west aeration basin. Prior to exhausting into the aeration basin, emission from the dryer shall be controlled by a spray tower condenser and a liquid ring exhaust blower.

Authority for Requirement: LCPH ATI 4608 / PTO 5307

LCPH ATI 4619 / PTO 5308

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

## Table Biomass-4.

			Stack Characteristics			
				Stack		Exhaust
		LCPH		Opening	Exhaust	Flow
		Permit	Stack Height	(inches,	Temp.	Rate
EP	EU	Numbers	(feet, above ground)	dia.)	(°F)	(acfm)
087	087	ATI 4608 /	Stack discharges at the	4	130	$368^{1}$
		PTO 5307	bottom of the west			
			aeration basin			
089	089	ATI 4619 /	Stack discharges at the	4	130	368 <sup>1</sup>
		PTO 5308	bottom of the west			
			aeration basin			

<sup>&</sup>lt;sup>1</sup> Exhaust flow rate from the dryer into the aeration basin.

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

# **Monitoring Requirements**

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

Stack testing is not required at this time.

Opacity monitoring is not required at this time.

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: SEP-098, SEP-099, SEP-100

**Process Area: BIOMASS PROCESSING** 

Table Biomass-5. Associated Equipment.

			Raw Material/	Rated		CE
EP	EU	EU Description	Fuel	Capacity	CE ID	Description
SEP-098	EU-98	Biosolids Storage Bin #1	Dried	1.25	CE-098	Baghouse
			Biosolids	ton/hr		
SEP-099	EU-99	Biosolids Storage Bin #2	Dried	1.25	CE-099	Baghouse
		_	Biosolids	ton/hr		_
SEP-100	EU-100	Biosolids Storage Bin #3	Dried	1.25	CE-100	Baghouse
			Biosolids	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.

## Table Biomass-6. Emission Limits.

EP	EU	Opacity	PM / PM <sub>10</sub>	Permit #
SEP-098	EU-98	20%	0.02 gr/dscf, 0.17 lb/hr	ATI 4620 / PTO 5013
SEP-099	EU-99	20%	0.02 gr/dscf, 0.17 lb/hr	ATI 4621 / PTO 5014
SEP-100	EU-100	20%	0.02 gr/dscf, 0.17 lb/hr	ATI 4622 / PTO 5015

#### Table Biomass-7. General Emission Limits.

EP	EU	Pollutant	<b>Emission Limit(s)</b>	Authority for Requirement
SEP-098	EU-98	Opacity	20%	LCO 10.7
SEP-099	EU-99	PM	0.1 gr/dscf	567 IAC 23.3(2)"a"(2)
SEP-100	EU-100			LCO 10.9(1)"a"

### **Operational Limits & Requirements**

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

### **Control Device:**

A baghouse shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4620 / PTO 5013

LCPH ATI 4621 / PTO 5014 LCPH ATI 4622 / PTO 5015

### **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives.

Monitor and record pressure drop on a weekly basis

Authority for Requirement: LCPH ATI 4620 / PTO 5013

LCPH ATI 4621 / PTO 5014 LCPH ATI 4622 / PTO 5015

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

### Table Biomass-8.

			Stack Chara	Stack Characteristics			
			Stack		Stack		Exhaust
			Height		Opening	Exhaust	Flow
		LCPH Permit	(feet, above	Discharge	(inches,	Temp.	Rate
EP	EU	Numbers	ground)	Style	dia.)	(°F)	(scfm)
SEP-098	EU-98	ATI 4620 /	65	Horizontal	6	130-165	1000
		PTO 5013					
SEP-099	EU-99	ATI 4621 /	65	Horizontal	6	135	1000
		PTO 5014					
SEP-100	EU-100	ATI 4622 /	65	Horizontal	6	130-165	1000
		PTO 5015					

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

### **Monitoring Requirements**

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

Stack testing is not required at this time.

### **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If

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

Authority for Requirement: 567 IAC 22.108(14)

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

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

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.

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Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: SEP-101 Process Area: BIOMASS PROCESSING** 

<u>Associated Equipment</u>

Associated Emission Unit ID Numbers: EU-101 Emissions Control Equipment ID Number: CE-101 Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU-101

Emission Unit Description: Biomass Truck Loadout

Raw Material/Fuel: Dried Biomass

Rated Capacity: 20 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): 20%

Authority for Requirement: LCPH ATI 4623 / PTO 5086

LCO 10.7

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.17 lb/hr

Authority for Requirement: LCPH ATI 4623 / PTO 5086

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/dscf, 0.17 lb/hr

Authority for Requirement: LCPH ATI 4623 / PTO 5086

### **Operational Limits & Requirements**

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

### **Control Device:**

A baghouse shall be used to control particulate matter emissions. The control equipment shall be maintained properly and operated at all times the air pollution source is in operation. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 4623 / PTO 5086

### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 25 Discharge Style: Vertical, unobstructed Stack Opening, (inches, dia.): 6 x 6 Exhaust Temperature (°F): 135 Exhaust Flow Rate (scfm): 1000

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

# **Monitoring Requirements**

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

Stack testing is not required at this time.

## **Operating Condition Monitoring and Recordkeeping**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. The following items shall be recorded:

The owner or operator shall monitor and record "no visible emissions" on a weekly basis.

Maintenance and repair completed on the control devices.

Authority for Requirement: LCPH ATI 4623 / PTO 5086

# **Opacity Monitoring:**

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 >20 % is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

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

Authority for Requirement: 567 IAC 22.108(3)

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)

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## 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 and Linn County Code of Ordinance (LCO) Chapter 10, paragraph 10.4.

### **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 Linn County Public Health Air Quality Division. 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 Linn County Public Health Air Quality Division. 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" and LCO 10.22

# **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" and LCO 10.18 and 10.19

### **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) and LCO 10.14(2)

## 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

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- 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) and LCO 10.16(1)

# G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. 567 IAC 22.108(6)

### G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the

environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). 567 IAC Chapter 131-State Only

### G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

### 2. Excess Emissions Reporting

- a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:
  - i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
  - ii. The estimated quantity of the excess emission.

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- 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) and LCO 10.14
- 3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The facility at the time was being properly operated;
  - c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
  - d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b."
     See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. 567 IAC 22.108(16)

# **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified

in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). 567 IAC 22.108(5)"b"

# G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. 567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4) This notification must be made to Linn County Air Quality Division, in lieu of the Department, upon adoption of the NSPS or NESHAP into Chapter 10.

# 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), recordkeeping, 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) and LCO 10.5

#### 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 may be allowed by LCO 10.10.

### 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. Exceedances 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 <u>not</u> required if the permit has a remaining term of less than three years;
  - b. Reopening and revision on this ground is <u>not</u> required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
  - c. Reopening and revision on this ground is <u>not</u> required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. 567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"
- 3. A permit shall be reopened and revised under any of the following circumstances:
  - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
  - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
  - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a

- remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
- d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
- e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. 567 IAC 22.114(1)
- 4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. 567 IAC 22.114(2)
- 5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. 567 IAC 22.114(3)

#### **G25. Permit Shield**

- 1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
  - a. Such applicable requirements are included and are specifically identified in the permit; or
  - b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- 2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
- 3. A permit shield shall not alter or affect the following:
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
  - d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. 567 IAC 22.108 (18)

#### **G26.** Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. 567 IAC 22.108 (8) and LCO 10.27

### **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 Linn County, stack test notifications, reports and correspondence shall also be directed to the supervisor of the county air pollution program. 567 IAC 25.1(7)"a", 567 IAC 25.1(9) and LCO 10.17

08-TV-004R1-M002, Jan. 1, 2020

# **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 local program shall be directed to the supervisor at the appropriate local program. Current address and phone number is:

Linn County Public Health Air Quality Division 1240 26<sup>th</sup> Avenue Ct. SW Cedar Rapids, IA 52404 (319) 892-6000

# **Appendix A: Agency O&M Plans**

# ADM Cedar Rapids Plant-Wide Packed Bed/General Wet Scrubber Agency Operation & Maintenance Plan

### **Monitoring Guidelines**

ADM makes a commitment to take timely corrective action during periods of excursions where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time. An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with Applicable Requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

**Applicable Emission Points** 

Emission	Control Equip	Description
Point ID #	ID#	
055	CE-055	Packed Bed Scrubber

# **Monitoring Methods & Corrective Actions**

### General

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.
- If flow rates or pressure drop levels are occurring outside the normal operating range, investigative/corrective action will start within eight (8) hours of findings.

### Weekly

• Check and document the scrubbing liquid circulating and make-up flow as appropriate and pressure drop across the scrubber. If the flow or pressure drop falls out of the recent normal operating range, based upon observed averages and ranges over the past year of operations (or outside a specific permit limit range), corrective action will be started within eight (8) hours of findings to return the operations to normal. The recent normal operating range shall also be documented on each record used for documenting the readings. Changes to these operating ranges shall be documented to include the reason and justification for the change. Conduct observations of the stack and areas adjacent to the stack to determine if excess droplet re-entrainment is occurring from an improperly operating mist eliminator. The signs of droplet re-entrainment may include fallout of solid-containing droplets, discoloration of the stack and adjacent surfaces, or a mud lip around the stack. If excess droplet re-entrainment is occurring, the appropriate measures for remediation will be started with eight (8) hours of findings.

• Maintain a written or electronic record of the inspection and any action resulting from the inspection.

### Quarterly

- Conduct a walk-around inspection of the entire system to search for leaks. If leaks in the system are detected, the appropriate measures for remediation will be started within eight (8) hours of findings.
- Maintain a written or electronic record of the inspection and any action resulting from the inspection.

## Annually (contingent on accessibility during shutdown period)

- Conduct an internal inspection of the scrubber to search as appropriate for signs of erosion, corrosion, or solids deposits, solids accumulation in mist eliminators, and plugged or eroded spray nozzles. If any of these conditions exist, the appropriate measures for remediation will be started within eight (8) hours of findings.
- Maintain a written or electronic record of the inspection and any action resulting from the inspection.

### Recordkeeping

- Maintain a written or electronic record of all inspections and any action resulting from the inspections.
- The facility will keep maintenance and inspection records for five (5) years and will be available upon request.

# **Quality Control**

• The equipment will be operated and maintained according to typical food industry standards and/or as outlined in the above monitoring requirements.

# **Appendix B: CAM Plans**

# Compliance Assurance Monitoring Plans for ADM Corn Processing Facility located in Cedar Rapids, Iowa

# I. Background

A. Emissions Unit

Description: See CAM Table 1 for full listing Identification: See CAM Table 1 for full listing

Facility: ADM Corn Processing

Cedar Rapids, Iowa

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: See CAM Table 1 for full listing Emission Limit or Standard: See CAM Table 1 for full listing Current Monitoring requirements: See CAM Table 1 for full listing

C. Control Technology

See CAM Table 1 for full listing

# II. Monitoring Approach

A. <u>Indicator</u>

See CAM Table 1 for a full list of monitoring indicators identified by emission point and associated control equipment.

B. <u>Measurement Approach</u>

See CAM Table 1 for individual monitoring frequencies for each of the selected monitoring indicators identified by emission point and associated control equipment.

C. <u>Indicator Range</u>

See CAM Table 1 for the appropriate indicator range(s) for each of the selected monitoring indicators identified by emission point and associated control equipment.

D. QIP (Quality Improvement Plan) Threshold (Optional)

The QIP threshold is six excursions in a six-month reporting period for all emission points and associated control equipment listed in CAM Table 1.

E. Performance Criteria

Data representativeness: Deviations from the normal

operating range(s) of the monitoring indicators listed in CAM Table 1 could indicate in the following: decreases in performance efficiency, increases in emissions, and/or the need for maintenance or repair to the associated equipment.

Verification of operational status: Records of monitoring indicator

measurements shall be kept for a minimum of five (5) years and shall be available for inspection by the federal, state, and local air pollution regulatory agencies and/or their representatives. Records shall be legible and maintained in an orderly

manner.

QA/QC practices and criteria: All monitoring devices shall be

calibrated, operated, and maintained according to their manufacturers'

specifications.

Monitoring frequency: The facility shall check the

monitoring indicators at the

frequency identified in CAM Table 1 when the associated emission unit (or units) is in operation. Note that CAM monitoring also meets permit monitoring requirements. For example, there is no need to completely two weekly opacity monitoring observations; one observation shall count for the purpose of meeting permit and CAM

requirements.

Data collection procedure: Data shall be collected from sources

representative of the emissions of each operating emission unit.

Monitoring devices shall be located

appropriately to provide

representative results and, wherever possible, be readily available for inspection by federal, state, and local air pollution regulatory agencies and/or their representatives.

Averaging period: In all cases, the averaging periods

required by this CAM plan are identical to those identified in the emission point-specific entries of the

Title V operating permit.

Corrective Action: In all cases, corrective action shall be

taken as soon as possible, but no later than eight (8) hours from the observation of the excursion.

**CAM Table 1. Summary of CAM Requirements by Emission Point.** 

EP	EU	CE	Pollutant	Emission	Monitoring	Indicator Level	Monitoring	Regulation No.
				Limit(s)	Indicator		Frequency	
008 000	008	008	PM	6.05 lb/hr	ΔΡ	$\geq 1$ and $\leq 8$ in. W.C.	Daily	LCPH ATI 6051 /
		(Baghouse)		0.01 gr/dscf	Opacity	No Visible Emissions	Weekly	PTO 6148R1
				0.1 gr/dscf	Monitoring			
			$PM_{10}$	14.4 tpy	ΔΡ	$\geq 1$ and $\leq 8$ in. W.C.	Daily	
				6.05 lb/hr	Opacity	No Visible Emissions	Weekly	
					Monitoring			
	008B, 008C,	010, 023,	PM	6.05 lb/hr	ΔΡ	$\geq$ 0.2 and $\leq$ 6 in. W.C.	Daily	
	010A, 010B,	040, 048,		0.01 gr/dscf	Opacity	No Visible Emissions	Weekly	
	023, 040, 048,	049, 086		0.1 gr/dscf 14.4 tpy 6.05 lb/hr	Monitoring			
	049, 086A,	(Baghouses)	PM <sub>10</sub>		ΔΡ	$\geq$ 0.2 and $\leq$ 6 in. W.C.	Daily	
	086B				Opacity	No Visible Emissions	Weekly	
					Monitoring			
034	034A	034B (Zero	CO	11.34 lb/hr	Average	≥ 1,440 °F	Daily	LCPH ATI 4664 / PTO 5082
	034B	Hearth)			Temp.			
061		061 (Baghouse)	PM	0.1 gr/dscf 0.09 lb/hr	ΔΡ	$\geq$ 0.25 and $\leq$ 7 in. W.C.	Daily	LCPH ATI 6210 / PTO 6051
					Opacity	No Visible Emissions	Weekly	
					Monitoring			
062	062	062 (Baghouse)	PM	0.1 gr/dscf 0.09 lb/hr	ΔΡ	$\geq$ 0.25 and $\leq$ 7 in. W.C.	Daily	LCPH ATI 6211 / PTO 6052
					Opacity	No Visible Emissions	Weekly	
					Monitoring			
063	063	063	PM	0.1 gr/dscf	ΔΡ	$\geq$ 0.25 and $\leq$ 7 in. W.C.	Daily	LCPH ATI 6212 / PTO 6053
		(Baghouse)		0.09 lb/hr	Opacity	No Visible Emissions	Weekly	]
					Monitoring			
064	064	064	PM	0.1 gr/dscf	ΔΡ	$\geq$ 0.25 and $\leq$ 7 in. W.C.	Daily	LCPH ATI 6213 / PTO 6054
		(Baghouse)		0.09 lb/hr	Opacity	No Visible Emissions	Weekly	]
					Monitoring			
114	114A	114B (Zero	CO	11.34 lb/hr	Average	≥ 1,440 °F	Daily	LCPH ATI 4665 / PTO 5083
	114B	Hearth)			Temp.			
210	046	210	$SO_2$	6.11 lb/hr	Flow Rate	≥ 240 gpm	Daily	LCPH ATI 5829 / PTO 6337
	210	(Scrubber <sup>5</sup> )	_	500 ppm <sub>v</sub>	ΔΡ	$\geq 0.5$ and $\leq 12$ in W.C.	1	

EP	EU	CE	Pollutant	Emission Limit(s)	Monitoring Indicator	Indicator Level	Monitoring Frequency	Regulation No.
271	271	271 (Baghouse)	PM	0.93 lb/hr 0.1 gr/scf	ΔP Opacity Monitoring	≥ 0.5 and ≤ 8.0 in W.C. No Visible Emissions	Daily Weekly	LCPH ATI 6188 / PTO 6529
501	501A, 501AN, 501B, 501BN	501A, 501B (Baghouses)	PM <sub>10</sub>	0.03 lb/MMBtu	ΔΡ	≥ 1 and ≤ 12 in. W.C.	Daily	Iowa DNR PSD Permits #86-A-090-P1 #86-A-091-P1 LCPH ATI 6131 / PTO 6267
502	502A, 502AN, 502B, 502BN	502A, 502B (Baghouses)	PM <sub>10</sub>	0.03 lb/MMBtu	ΔΡ	≥ 1 and ≤ 12 in. W.C.	Daily	Iowa DNR PSD Permits #90-A-083-P1 #93-A-324-S1 LCPH ATI 6132 / PTO 6268
503	503	503	$PM_{10}$	2.41 lb/hr	ΔΡ	$\geq$ 0.5 and $\leq$ 8.0 in. W.C.	Daily	LCPH ATI 6163 / PTO 6235
		(Bunker Dust Collector)		14.4 tpy	Opacity Monitoring	No Visible Emissions	Weekly	
505	505	505	PM	0.1 gr/dscf	ΔΡ	$\geq$ 0.5 and $\leq$ 8 in. W.C.	Daily	LCPH ATI 5802 / PTO 5971
		(Baghouse)		2.18 lb/hr	Opacity Monitoring	No Visible Emissions	Weekly	
514	514	514	$PM_{10}$	1.6 lb/hr	ΔΡ	$\geq$ 0.5 and $\leq$ 8 in. W.C.	Daily	LCPH ATI 6108 / PTO 6236
		(Baghouse)		14.4 tpy	Opacity Monitoring	No Visible Emissions	Weekly	
515	515	514	$PM_{10}$	1.6 lb/hr	ΔΡ	$\geq$ 0.5 and $\leq$ 8 in. W.C.	Daily	LCPH ATI 6120 / PTO 6237
		(Baghouse)		14.4 tpy	Opacity Monitoring	No Visible Emissions	Weekly	
530	530A, 530AN	530A (Baghouse)	PM <sub>10</sub>	0.03 lb/MMBtu	ΔΡ	$\geq$ 1 and $\leq$ 12 in. W.C.	Daily	Iowa DNR PSD Permit #98-A-507-P2 LCPH ATI 5096 / PTO 5045
532	532	532	PM	0.01 gr/dscf	ΔΡ	$\geq$ 0.5 and $\leq$ 8 in. W.C.	Daily	Iowa DNR PSD Permit
		(Baghouse)		0.1 gr/dscf	Opacity	No Visible Emissions	Weekly	#98-A-509-PS1
					Monitoring			LCPH ATI 3735 / PTO 4739
533	533		PM	0.01 gr/dscf 0.1 gr/dscf	ΔΡ	$\geq 0.5$ and $\leq 8$ in. W.C.	Daily	Iowa DNR PSD Permit
		(Baghouse)			Opacity	No Visible Emissions	Weekly	#98-A-510-P LCPH ATI 3734 / PTO 4738
			Į.		Monitoring		<u>l</u>	LCTH A11 3/34/ P1U 4/38

EP	EU	CE	Pollutant	Emission	Monitoring	Indicator Level	Monitoring	Regulation No.
				Limit(s)	Indicator		Frequency	
535	535	535	PM	0.01 gr/dscf	ΔΡ	$\geq$ 0.5 and $\leq$ 8 in. W.C.	Daily	Iowa DNR PSD Permit
		(Baghouse)		0.1 gr/dscf	Opacity	No Visible Emissions	Weekly	#98-A-512-PS1
					Monitoring		-	LCPH ATI 3732 / PTO 4736
536	536	536	PM	0.01 gr/dscf	ΔΡ	$\geq$ 0.5 and $\leq$ 8 in. W.C.	Daily	Iowa DNR PSD Permit
		(Baghouse)		0.1 gr/dscf	Opacity	No Visible Emissions	Weekly	#98-A-513-PS1
					Monitoring		-	LCPH ATI 3731 / PTO 4735

# Notes:

<sup>&</sup>lt;sup>1</sup> Horizontal Cross-Flow Scrubber

<sup>&</sup>lt;sup>2</sup> Entoleter Scrubber

<sup>3</sup> Packed Tower Scrubber

<sup>4</sup> Ducon Scrubber

<sup>5</sup> Packed Bed Scrubber

<sup>6</sup> Dry Combustion Chamber

# Appendix C

# **Applicable Federal Requirements**

# **New Source Performance Standards:**

### **40 CFR Part 60 Subpart A** – General Provisions

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=3a83c00b45fa1280931cbdb920e6b7a7&mc=true&node=sp40.7.60.a&rgn=div6

# **40 CFR Part 60 Subpart Db** – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

<u>idx?SID=bdb4c693e33832a619f89d2ab746b580&mc=true&node=sp40.7.60.d\_0b&rgn=div6</u>

**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

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=3a83c00b45fa1280931cbdb920e6b7a7&mc=true&node=sp40.7.60.k\_0b&rgn=div6

# **40 CFR Part 60 Subpart Y** – *Standards of Performance for Coal Preparation and Process Plants*

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=3a83c00b45fa1280931cbdb920e6b7a7&mc=true&node=sp40.7.60.y&rgn=div6

### **40 CFR Part 60 Subpart DD** – Standards of Performance for Grain Elevators

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=3a83c00b45fa1280931cbdb920e6b7a7&mc=true&node=sp40.7.60.dd&rgn=div

**40 CFR Part 60 Subpart VV** – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after January 5, 1981, and on or before November 7, 2006

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=3a83c00b45fa1280931cbdb920e6b7a7&mc=true&node=sp40.7.60.vv&rgn=div

**40 CFR Part 60 Subpart KKKK** – Standards of Performance for Stationary Combustion Turbines

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

<u>idx?SID=3a83c00b45fa1280931cbdb920e6b7a7&mc=true&node=sp40.7.60.kkkk&rgn=div6</u>

**Note:** A list of all promulgated NSPS rules, EPA Region 7 staff contact information (for questions pertaining to the rule), compliance assistance links, and a link to each NSPS can be found below:

https://www.epa.gov/caa-permitting/new-source-performance-standards-region-7

## **National Emissions Standards for Hazardous Air Pollutants:**

### **40 CFR Part 63 Subpart A** – General Provisions

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

<u>idx?SID=3e18dad53f9fe41048f44d5bead0915c&mc=true&tpl=/ecfrbrowse/Title40/40cfr63 main 02.tpl</u>

**40 CFR Part 63 Subpart Q** – National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

 $\underline{idx?SID} = 3e18dad53f9fe41048f44d5bead0915c\&mc = true\&node = sp40.10.63.q\&rgn = div\\ \underline{6}$ 

40 CFR Part 63 Subpart FFFF - National Emission Standards for Hazardous Air

Pollutants: Miscellaneous Organic Chemical Manufacturing

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

 $\underline{idx?SID} = 3e18dad53f9fe41048f44d5bead0915c\&mc = true\&node = sp40.13.63.ffff\&rgn = div6$ 

**40 CFR Part 63 Subpart YYYY** – National Emission Standards for Hazardous Air

Pollutants for Stationary Combustion Turbines

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

<u>idx?SID=3e18dad53f9fe41048f44d5bead0915c&mc=true&node=sp40.13.63.yyyy&rgn=div6</u>

**40 CFR Part 63 Subpart ZZZZ** – National Emission Standards for Hazardous Air

Pollutants for Stationary Reciprocating Internal Combustion Engines

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

<u>idx?SID=3e18dad53f9fe41048f44d5bead0915c&mc=true&node=sp40.14.63.zzzz&rgn=div6</u>

**40 CFR Part 63 Subpart DDDDD** – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

 $\frac{idx?SID=3e18dad53f9fe41048f44d5bead0915c\&mc=true\&node=sp40.14.63.ddddd\&rgn=div6$ 

**Note:** A list of all promulgated MACT rules, EPA Region 7 staff contact information (for questions pertaining to the rule), compliance assistance links, and a link to each NESHAP can be found below:

 $\underline{https://www.epa.gov/caa-permitting/maximum-achievable-control-technology-standards-region-7}$