Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: PLCP, L.P.
Facility Location: 33371 170th Street, Steamboat Rock, IA 50672
Air Quality Operating Permit Number: 19-TV-001R1
Expiration Date: 1/30/2030
Permit Renewal Application Deadline: 7/30/2029

EIQ Number: 92-6962
Facility File Number: 42-08-001

Responsible Official
Name: James Broghammer
Title: CEO
Mailing Address: 33371 170th Street, Steamboat Rock, IA 50672
Phone #: 641-868-2676

Permit Contact Person for the Facility
Name: David Myers
Title: Consultant
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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 24, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Marnie Stein

01/31/2025

Marnie Stein, Supervisor of Air Operating Permits Section — Date

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Abbreviations

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

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

I. Facility Description and Equipment List

Facility Name: PLCP, L.P.
Permit Number: 19-TV-001R1

Facility Description: Industrial Organic Chemicals, Ethyl Alcohol Manufacturing (SIC 2869, 325193)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
S-01	EU-01	Truck Dump Pit #1	03-A-620-S4
	EU-02	Corn Elevator- Headhouse & Internal Handling	
S111	EU111	Truck Dump Pit #2	17-A-487-S1
	EU112	Corn Elevator	
S03	EU03	Grain Storage Bin #1	06-A-812-S4
S04	EU04	Grain Storage Bin #2	06-A-813-S4
S05	EU05	Grain Storage Bin #3	16-A-468-S3
S112	EU112	Grain Storage Bin #4	17-A-485-S1
S113	EU113	Grain Storage Bin #5	17-A-486-S1
S10	EU10	Hammermill #1	03-A-621-S5
	EU11	Hammermill #2	
	EU102	Hammermill #3	
S11	EU13	Hammermill #4	16-A-187-S2
	EU14	Hammermill #5	
	EU114	Hammermill #6	
S12	EU58	Denatured Ethanol Loadout-Truck	03-A-628-S7
RL-01	EU59	Ethanol Loadout-Rail	22-A-230-S1
S20, S130	EU20	Yeast Tank #1	03-A-622-S15 16-A-488-S6
	EU72	Yeast Tank #2	
	EU23	Batch Fermenter #1	
	EU24	Batch Fermenter #2	
	EU25	Batch Fermenter #3	
	EU26	Batch Fermenter #4	
	EU99	Batch Fermenter #5	
	EU100	Batch Fermenter #6	
	EU27	Batch Fermenter #7	
	EU28	Batch Fermenter #8	
	EU65	Batch Fermenter #9	
	EU66	Batch Fermenter #10	
	EU67	Batch Fermenter #11	
	EU89	Batch Fermenter #12	
	EU91	Batch Fermenter #13	
	EU92	Batch Fermenter #14	
	EU93	Batch Fermenter #15	

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
S20	EU22	Beer Well	03-A-622-S15
	EU-55	Liquefaction Tank #1	
	EU-71	Liquefaction Tank #2	
	EU-73	Liquefaction Tank #3	
	EU-74	Liquefaction Tank #4	
	EU-101	Liquefaction Tank #5	
	EU-88	Liquefaction Tank #6	
	EU-31	De-Gas Vessel	
	EU-32	Beer Stripper #1	
	EU-83	Beer Stripper #2	
	EU-33	Side Stripper #1	
	EU-84	Side Stripper #2	
	EU-34	Rectifier #1	
	EU-85	Rectifier #2	
	EU-35	Molecular Sieve #1	
	EU-87	Molecular Sieve #2	
	EU-60	200 Proof Condenser #1	
	EU-86	200 Proof Condenser #2	
	EU-36	Evaporator #1	
	EU-82	Evaporator #2	
	EU-39	Syrup Tank	
	EU-53	Whole Stillage Tank	
	EU-54	Thin Stillage Tank	
	EU-57	Process Condensate Tank	
	EU-30	Slurry Tank #1	
	EU-42	Slurry Tank #2	
	EU-103	Beer Stripper #3	
	EU-104	Mechanical Vapor Recovery	
	EU-105	Evaporator #3	
	EU-106	Evaporator #4	
	EU-107	Evaporator #5	
	EU-108	Evaporator #6	
S40	EU40	DDGS Dryer #1	03-A-624-S12
S40A (bypass)	EU40	DDGS Dryer #1	23-A-393
S50	EU68	DDGS Dryer A	16-A-490-S5
	EU69	DDGS Dryer B	
	EU77	Centrifuge #3	
	EU78	Centrifuge #4	
	EU79	Centrifuge #5	
	EU80	Centrifuge #6	
S79 (bypass)	EU77	Centrifuge #3	16-A-493-S3
	EU78	Centrifuge #4	
	EU79	Centrifuge #5	
	EU80	Centrifuge #6	
S41	EU41	DDGS Cooler #1	03-A-625-S9
S42	EU43	DDGS Cooler #2	16-A-491-S4

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
	FS007	Loadout (DDGS Handling #2)	
S70	EU70	Utility Boiler #1	04-A-192-S6
S110	EU110	Utility Boiler #2	16-A-483-S2
S120	EU120	Utility Boiler #3	22-A-090-S1
S90	EU90	Fire Pump Engine	04-A-1100-S3
FS001	FS001	Grain Receiving Fugitives	--
S80	FS002	DDGS Loadout	04-A-191-S3
	FS006	Wetcake Production and Storage	
FS003	FS003	Truck Traffic Fugitives	06-A-832-S3
FS004	FS004	Cooling Tower #1 (4 cells)	06-A-829-S3
FS004 (A-C)	FS004 (A-C)	Cooling Tower #2 (3 cells)	20-A-104-S1
FS004 (E-G)	FS004(E-G)	Cooling Tower #2 (3 cells)	16-A-484
FS005	FS005	Equipment Leak Fugitives	06-A-831-S4
FS007	FS007	DDGS Storage Building #2 Fugitives	--
TK001	TK001	Ethanol Storage Tank #1	03-A-629-S6
TK02	TK02	Denaturant Storage Tank	03-A-630-S4
TK003	TK003	Ethanol Storage Tank #2	03-A-631-S5
TK004	TK004	Ethanol Storage Tank #3	03-A-632-S5
TK005	TK005	Ethanol Storage Tank #4	16-A-485-S1
TK006	TK006	Ethanol Storage Tank #5	16-A-492-S1
S140	EU140	Gas Turbine	23-A-392
	EU141	Heat Recovery Steam Generator (HRSG) and Duct Burner	

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
Gasoline	500 gallon Storage Tank
Diesel Fuel	500 gallon Storage Tank

II. Plant-Wide Conditions

Facility Name: PLCP, L.P.
Permit Number: 19-TV-001R1

Permit conditions are established in accord with 567 Iowa Administrative Code rule 24.108. When 567 IAC as amended May 15, 2024, and cited in this permit becomes State Implementation Plan (SIP) approved, it will supersede 567 IAC as amended February 8, 2023. Prior to May 15, 2024, all Title V rule citations in this Title V permit were found and cited in 567 IAC Chapter 22. During the period from May 15, 2024, to the date that 567 IAC as amended May 15, 2024, is approved into the SIP, both 567 IAC as amended May 15, 2024 and 567 IAC as amended February 8, 2023 form the legal basis for the applicable requirements included in this permit. A crosswalk showing the citation changes is attached to this permit in Appendix C Executive Order 10 (EO10) Rules Crosswalk.

Permit Duration

The term of this permit is: Five (5) years
Commencing on: 1/31/2025
Ending on: 1/30/2030

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 24.110 - 24.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 24.115.

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

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

Sulfur Dioxide (SO_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

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

provided in 23.3(2)"a"(2) or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

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

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

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

III. Emission Point-Specific Conditions

Facility Name: PLCP, L.P.
Permit Number: 19-TV-001R1

Emission Point ID Number: S01 Grain Handling Baghouse #1

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
S01	EU01	Truck Dump Pit #1	C01; Pulse Jet Baghouse	Whole kernel corn	15,000 bu/hr	03-A-620-S4
	EU02	Corn Elevator-Headhouse & Internal Handling				

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 03-A-620-S4

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.50 lb/hr
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permit 03-A-620-S4

Pollutant: PM_{10}
Emission Limit(s): 0.50 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-620-S4

Operational Limits & Reporting/Record keeping Requirements

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

A. The owner or operator shall operate and maintain the Baghouse (C01) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Baghouse (C01). This log shall include, but is not limited to:
   i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
   ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
   iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
   iv. Identification of the staff member performing the inspection or maintenance activity.

Authority of Requirement: DNR Construction Permit 03-A-620-S4

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S01	35.3	16 X 15	6,273	Ambient	Vertical Unobstructed	03-A-620-S4

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐
Located in Appendix B.
Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒
Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒
Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S111 Grain Handling Baghouse #2

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
S111	EU111	Grain Receiving	CE60; Pulse Jet Baghouse	Whole kernel corn	20,000 bushels/hr	17-A-487-S1
	EU112	Corn Elevator				

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 17-A-487-S1

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.48 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permit 17-A-487-S1

Pollutant: PM_{10}
Emission Limit(s): 0.48 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-487-S1

Pollutant: $PM_{2.5}$
Emission Limit(s): 0.48 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-487-S1

Operational Limits & Reporting/Record keeping Requirements

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

A. The owner or operator is limited to operating the Grain Receiving (EU111) and Corn Elevator (EU112) between the hours of 7 am to 7 pm. On a daily basis, the owner or operator shall record the date and time that the Grain Receiving (EU111) and Corn Elevator (EU112) is operated.

B. The owner or operator shall operate and maintain the Baghouse (CE60) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Baghouse (CE60). This log shall include, but is not limited to:
    a. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
    b. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
    c. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
    d. Identification of the staff member performing the inspection or maintenance activity.

Authority of Requirement: DNR Construction Permit 17-A-487-S1

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S111	25	22	8,900	Ambient	Vertical Unobstructed	17-A-487-S1

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

Monitoring Requirements

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

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

Located in Appendix B.

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Numbers: S03, S04, S05, S112 and S113 (Grain Storage Bins #1-5)

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
S03	EU03	Grain Storage Bin #1	CE03; Bin Vent Filter	Whole kernel corn	110,000 Bushels	06-A-812-S4
S04	EU04	Grain Storage Bin #2	CE04; Bin Vent Filter	Whole kernel corn	110,000 Bushels	06-A-813-S4
S05	EU05	Grain Storage Bin #3 (296,616 bushels)	CE05; Dust Collection Filter	Whole kernel corn	15,000 bu/hr	16-A-486-S3
S112	EU112	Grain Storage Bin #4 (430,000 bushels)	CE61; Dust Collection Filter	Whole kernel corn	20,000 bu/hr	17-A-485-S1
S113	EU113	Grain Storage Bin #5 (430,000 bushels)	CE62; Dust Collection Filter	Whole kernel corn	20,000 bu/hr	17-A-486-S1

Applicable Requirements

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

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

Emission Point	Opacity	PM-2.5	PM-10	Particulate Matter	Authority for Requirement
S03	40%[(1)]	0.61 lb/hr	0.61 lb/hr	0.61 lb/hr, 0.1 gr/dscf	06-A-812-S4, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"
S04	40%[(1)]	0.61 lb/hr	0.61 lb/hr	0.61 lb/hr, 0.1 gr/dscf	06-A-813-S4, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"
S05	40%[(1)]	0.61 lb/hr	0.61 lb/hr	0.61 lb/hr, 0.1 gr/dscf	16-A-486-S3, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"
S112	40%[(1)]	0.28 lb/hr	0.28 lb/hr	0.28 lb/hr, 0.1 gr/dscf	17-A-485-S1, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"
S113	40%[(1)]	0.28 lb/hr	0.28 lb/hr	0.28 lb/hr, 0.1 gr/dscf	17-A-486-S1, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"

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

Operational Limits & Reporting/Record keeping Requirements

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

A. The owner or operator is limited to loading the grain storage bins (EU-03, EU-04, EU-05, EU-112, and EU-113) only between the hours of 7 am and 7 pm. On a daily basis, the owner or operator shall record the date and beginning and ending times that the grain storage bins are loaded.
B. The owner or operator shall operate and maintain the Bin Vent Filter (C03), Bin Vent Filter (C04), Dust Collection Filter (C05), Dust Collection Filter (CE-61), and Dust Collection Filter (CE-62) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Bin Vent Filter (C03), Bin Vent Filter (C04), Dust Collection Filter (C05), Dust Collection Filter (CE-61), and Dust Collection Filter (CE-62). This log shall include, but is not limited to:
    a. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
    b. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
    c. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
    d. Identification of the staff member performing the inspection or maintenance activity.

Authority of Requirement: DNR Construction Permits 06-A-812-S4, 06-A-813-S4, 16-A-486-S3, 17-A-485-S1, and 17-A-486-S1

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S03	60	15 X 15	700	Ambient	Horizontal	06-A-812-S4
S04	60	15 X 15	700	Ambient	Horizontal	06-A-813-S4
S05	106	15 X 15	710	Ambient	Vertical Obstructed	16-A-486-S3
S112	106	15 X 15	710	Ambient	Vertical Obstructed	17-A-485-S1
S113	106	15 X 15	710	Ambient	Vertical Obstructed	17-A-486-S1

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐
Required for CE03, CE04, CE05, CE61, and CE62
See Appendix B for Agency O&M plan.

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Numbers: S10 and S11 Hammermill Baghouse #1 and #2

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
S10	EU10	Hammermill #1	C10; Pulse Jet Baghouse	Whole kernel corn	770 lb/min	03-A-621-S5
	EU11	Hammermill #2			770 lb/min	
	EU102	Hammermill #3			933 lb/min	
S11	EU13	Hammermill #4	C11; Pulse Jet Baghouse	Whole kernel corn	933 lb/min (each) 49.5tons/hr	16-A-487-S2
	EU14	Hammermill #5				
	EU114	Hammermill #6				

Applicable Requirements

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

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

Emission Point	Opacity	$PM_{2.5}$	PM_{10}	Particulate Matter	Authority for Requirement
S10	40%[(1)]	0.48 lb/hr	0.48 lb/hr	0.48 lb/hr, 0.1 gr/dscf	03-A-621-S5, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"
S11	40%[(1)]	0.48 lb/hr	0.48 lb/hr	0.48 lb/hr, 0.1 gr/dscf	16-A-487-S2, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"

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

Operational Limits & Reporting/Record keeping Requirements

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

A. The total amount of corn processed by Hammer Mills #4, #5, and #6, combined, shall not exceed 1,188 tons per day.
   (1) The owner or operator shall collect and record the total amount of corn processed by Hammer Mills #4, #5, and #6 on a daily basis. This requirement shall not apply when none of the hammer mills associated with Emission Point S11 is operating.

B. The owner or operator shall operate, inspect, and maintain Baghouses C10 and C11 according to the manufacturer's specifications and instructions.
   (1) The owner or operator shall keep a log of all maintenance and inspection activities performed on Baghouses C10 and C11. At a minimum this log shall

include the following:

a. The date that any inspection and/or maintenance was performed on the control equipment;
    i. The owner or operator shall conduct inspection activities at a minimum of once per calendar year.
b. Any issues identified during inspection activities;
c. Any issues addressed during the maintenance activities and the date each issue was resolved; and
d. Identification of the staff member performing the maintenance inspection.

Authority of Requirement: DNR Construction Permits 03-A-621-S5, 16-A-487-S2

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S10	35.8	16.2 x 15	12,500	Ambient	Vertical Unobstructed	03-A-621-S5
S11	35.8	17.65 diameter	6,800	Ambient	Vertical Unobstructed	16-A-487-S2

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

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐
Plan located in Appendix B for CE-11
Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☒ **No** ☐
CAM plans are located in Appendix D for CE-10.
Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Numbers: S12, RL-01 Ethanol Product Loadout

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
S12	EU-58[1]	Truck Ethanol Loadout	CE12; 30MMBtu/hr Flare	Ethanol and denaturant	800 gal/min	03-A-628-S7
RL-01	EU-59[2]	Rail Ethanol Loadout	None	[2]	800 gal/min	22-A-230-S1

[1]Truck Ethanol Loadout (EU-58) may be used to load out onsite-produced ethanol (denatured and undenatured).
[2]Rail Ethanol Loadout (EU-59) may be used to load out onsite-produced ethanol (denatured and undenatured) and transloaded ethanol (denatured and undenatured).

Applicable Requirements

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.
Combined Truck and Rail Onsite-Produced Ethanol Loadout

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 15.87 tons/yr
Authority for Requirement: DNR Construction Permits 03-A-628-S7, 22-A-230-S1

Pollutant: Single HAP
Emission Limit(s): 0.27 tons/yr[1]
Authority for Requirement: DNR Construction Permits 03-A-628-S7, 22-A-230-S1

Pollutant: Total HAP
Emission Limit(s): 0.61 tons/yr[1]
Authority for Requirement: DNR Construction Permits 03-A-628-S7, 22-A-230-S1
[1]The emission limit applies to the combined emissions from: (1) truck onsite-produced ethanol loadout; (2) rail onsite-produced ethanol loadout, non-switch-loaded; and (3) rail onsite-produced ethanol loadout, switch-loaded.

Truck Onsite Produced Ethanol Loadout (EP-S12)

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 03-A-628-S7
[1]An exceedance of the indicator opacity of "*no visible emissions*" will require the owner to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 0.09 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 03-A-628-S7

Pollutant: PM_{10}
Emission Limit(s): 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-628-S7

Pollutant: $PM_{2.5}$
Emission Limit(s): 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-628-S7

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.02 lb/hr, 500 ppm_v
Authority for Requirement: 567 IAC 23.3(3)"e"
DNR Construction Permit 03-A-628-S7

Pollutant: Nitrogen Oxides(NO_x)
Emission Limit(s): 0.32 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-628-S7

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 0.53 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-628-S7

Rail Transloaded Ethanol Loadout (EP RL-01)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 2.55 tons/yr
Authority for Requirement: DNR Construction Permit 22-A-230-S1

Pollutant: Single HAP
Emission Limit(s): 0.04 tons/yr
Authority for Requirement: DNR Construction Permit 22-A-230-S1

Pollutant: Total HAP
Emission Limit(s): 0.06 tons/yr
Authority for Requirement: DNR Construction Permit 22-A-230-S1

Operational Limits & Reporting/Record keeping Requirements

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

A. The owner or operator shall use submerged fill pipes that are no more than 6 inches from the bottom of the cargo tank.
    a. The owner or operator shall maintain submerged fill pipe documentation, including but not limited to, vendor specifications and date of installation.
B. The owner or operator shall load out *onsite-produced* and *transloaded* ethanol product (denatured and undenatured).
    a. The owner or operator shall load out transloaded ethanol product (denatured and undenatured) by rail only.
C. The total amount of onsite-produced ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by rail and truck shall not exceed 95 million gallons per rolling 12-month period, combined.
    a. The owner or operator shall record the total amount, in gallons, of onsite-produced ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by rail and truck, combined, on a monthly basis.
    b. The owner or operator shall calculate and record the total amount, in gallons, of onsite-produced ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by rail and truck, combined, on a rolling 12-month basis.
D. The total amount of transloaded ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by rail shall not exceed 16 million gallons per rolling 12-month period.
    a. The owner or operator shall record the total amount, in gallons, of transloaded ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by rail, on a monthly basis.
    b. The owner or operator shall calculate and record the total amount, in gallons, of transloaded ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by rail, on a rolling 12-month basis.
E. The owner or operator shall only receive natural gasoline to be used as an ingredient or denaturant in the ethanol product (onsite-produced or transloaded) loaded out at Plant No. 42-08-001.
    a. The owner or operator shall maintain on-site purchase records and manufacturer/vendor provided information (Safety Data Sheets, technical data sheets, etc.) for the natural gasoline received at the facility.
F. The total amount of denaturant loaded out at Plant No. 42-08-001 by rail and truck shall not exceed 2.3 million gallons per rolling 12-month period, combined.
    a. The owner or operator shall record the total amount, in gallons, of denaturant loaded out at Plant No. 42-08-001 by rail and truck, combined, on a monthly basis.
    b. The owner or operator shall calculate and record the total amount, in gallons, of denaturant loaded out at Plant No. 42-08-001 by rail and truck, combined, on a rolling 12-month basis.

TRUCK ETHANOL LOADOUT (EU-58) REQUIREMENTS

G. All truck load outs shall be considered switch-loaded (filled with ethanol product (denatured and undenatured) when the previous tank load was gasoline) and in dedicated vapor balance service.

H. The total amount of ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by truck shall not exceed 50 million gallons per rolling 12-month period.
   a. The owner or operator shall record the total amount, in gallons, of ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by truck, on a monthly basis.
   b. The owner or operator shall calculate and record the total amount, in gallons, of ethanol product (denatured and undenatured) loaded out at Plant No. 42-08-001 by truck, on a rolling 12-month basis.

I. The owner or operator shall operate the flare (CE-C12) whenever ethanol product (denatured and undenatured) is loaded out by truck.

J. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

K. The owner or operator shall continuously verify the output of the flame detection system indicating the presence of a flame, while loading.

L. Prior to ethanol product loading at the truck ethanol loadout (EU-58), the owner or operator shall check for leaks at connection points between the trailer and the ethanol loadout skid to ensure 100 percent capture of vapors during ethanol product loading.
   i. If leaks are detected, the owner or operator shall not conduct truck ethanol product loading until the leaking connection points are repaired to manufacturer's specifications.

M. The owner or operator shall inspect and maintain the flare (CE-C12) according to the manufacturer's specifications and instructions.
   i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the flare (CE-C12). At a minimum, this log shall include:
      1. The date that any inspection and/or maintenance was performed on the flare (CE-C12);
      2. Any issues identified during the inspection;
      3. Any issues addressed during the maintenance activities and the date each issue was resolved; and
      4. Identification of the staff member performing the maintenance or inspection.

RAIL ETHANOL LOADOUT (EU-59) REQUIREMENTS

N. Except as indicated in Condition O, all rail load outs at Plant No. 42-08-001 shall be to dedicated tank railcars, i.e., no switch-loading.

O. The owner or operator shall load a maximum of 10 railcars (300,000 gallons) per rolling 12-month period at the rail ethanol loadout (EU-59) that previously contain gasoline, i.e., switch-loading.
   a. The owner or operator shall maintain documentation of the material contained in railcars prior to loading at the rail ethanol loadout (EU-59).
   b. The owner or operator shall maintain monthly records of the number of railcars that previously contained gasoline.

c. The owner or operator shall calculate and record the rolling 12-month total of the number of railcars that previously contained gasoline.

Authority of Requirement: DNR Construction Permits 03-A-628-S7, 22-A-230-S1

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S12	20	8.6	3,500	1,800	Vertical Unobstructed	03-A-628-S7

*The rail ethanol loadout is not associated with a physical stack.

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

Monitoring Requirements

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

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

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

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

Conditions listed in the Operational Limits & Reporting/Record keeping Requirements are CAM equivalent. No additional CAM plan is required.

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S20 Fermentation #1 and S130 Fermentation #2

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity
S20	EU-20	Yeast Tank #1	Condenser #1 (CE-20A) & Fermentation Scrubber #1 (CE-20)	Yeast & Mash	66,000 gallons
	EU-72	Yeast Tank #2			45,000 gallons
	EU-23	Batch Fermenter #1			313,680 gallons
	EU-24	Batch Fermenter #2			313,000 gallons
	EU-25	Batch Fermenter #3			313,000 gallons
	EU-26	Batch Fermenter #4			313,680 gallons
	EU-99	Batch Fermenter #5			313,000 gallons
	EU-100	Batch Fermenter #6			313,000 gallons
	EU-27	Batch Fermenter #7			313,000 gallons
	EU-28	Batch Fermenter #8			313,000 gallons
	EU-65	Batch Fermenter #9			313,000 gallons
	EU-66	Batch Fermenter #10			313,000 gallons
	EU-67	Batch Fermenter #11			313,000 gallons
	EU-89	Batch Fermenter #12			313,000 gallons
	EU-91	Batch Fermenter #13			313,000 gallons
	EU-92	Batch Fermenter #14			313,000 gallons
	EU-93	Batch Fermenter #15			313,000 gallons
	EU-22	Beer Well			404,190 gallons
	EU-55	Liquefaction Tank #1	Fermentation Scrubber #1 (CE-20)	Mash	45,000 gallons
	EU-71	Liquefaction Tank #2			45,120 gallons
	EU-73	Liquefaction Tank #3			45,120 gallons
	EU-74	Liquefaction Tank #4			45,120 gallons
	EU-101	Liquefaction Tank #5			45,120 gallons
	EU-88	Liquefaction Tank #6			45,120 gallons
	EU-31	De-Gas Vessel		Beer Mash	31,000 gallons ethanol/hr (Each)
	EU-32	Beer Stripper #1			
	EU-83	Beer Stripper #2			
	EU-33	Side Stripper #1		Ethanol & water	
	EU-84	Side Stripper #2			
	EU-34	Rectifier #1		Ethanol	
	EU-85	Rectifier #2			
	EU-35	Molecular Sieve #1			
	EU-87	Molecular Sieve #2			
	EU-60	200 Proof Condenser #1			4,000 gallons ethanol/hr (Each)
	EU-86	200 Proof Condenser #2			
	EU-36	Evaporator #1		Beer Bottoms	31,000 gallons ethanol/hr
	EU-82	Evaporator #2		Syrup & Process Vapors	31,000 gallons ethanol/hr
	EU-39	Syrup Tank		Syrup	80,000 gallons
	EU-53	Whole Stillage Tank		Beer Bottoms	150,000 gallons

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity
S20	EU-54	Thin Stillage Tank	Fermentation Scrubber #1 (CE-20)	Thin Stillage	107,000 gallons
	EU-57	Process Condensate Tank		Process Steam Condensate	101,000 gallons
	EU-30	Slurry Tank #1		Slurry/ Mash	31,000 gallons slurry/hr
	EU-42	Slurry Tank #2			31,000 gallons slurry/hr
	EU-103	Beer Stripper #3		Ethanol	4,400 gallons ethanol/hr
	EU-104	Mechanical Vapor Recovery		60% Ethanol	500,000 pounds 60% ethanol/hr
	EU-105	Evaporator #3		Thin Stillage	600 gallons thin stillage/hr
	EU-106	Evaporator #4			400 gallons thin stillage/hr (Each)
	EU-107	Evaporator #5			
	EU-108	Evaporator #6			
S130	EU-20	Yeast Tank #1	Condenser #2 (CE-30A) & Condenser #3 (CE-30B) & Fermentation Scrubber #2 (CE-130)	Yeast & Mash	66,000 gallons
	EU-72	Yeast Tank #2			45,000
	EU-23	Batch Fermenter #1			313,680 gallons
	EU-24	Batch Fermenter #2			313,000 gallons
	EU-25	Batch Fermenter #3			313,000 gallons
	EU-26	Batch Fermenter #4			313,680 gallons
	EU-99	Batch Fermenter #5			313,000 gallons
	EU-100	Batch Fermenter #6			313,000 gallons
	EU-27	Batch Fermenter #7			313,000 gallons
	EU-28	Batch Fermenter #8			313,000 gallons
	EU-65	Batch Fermenter #9			313,000 gallons
	EU-66	Batch Fermenter #10			313,000 gallons
	EU-67	Batch Fermenter #11			313,000 gallons
	EU-89	Batch Fermenter #12			313,000 gallons
	EU-91	Batch Fermenter #13			313,000 gallons
	EU-92	Batch Fermenter #14			313,000 gallons
	EU-93	Batch Fermenter #15			313,000 gallons
	EU-22	Beer Well			404,190 gallons

Authority for Requirement: DNR Construction Permit 03-A-622-S15 (S20)
16-A-488-S6 (S130)

Applicable Requirements

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

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

Emission Limits - Combined

Emission Point(s)	Pollutant	Lb/hr	Tons/yr	Reference
S20 & S130	Volatile Organic Compounds (VOC)	12.0[(1)]	NA	DNR Construction Permits 03-A-622-S15 & 16-A-488-S6
	Single HAP	NA	7.70[(2)]	
	Total HAP	NA	17.66[(2)]	

[(1)]The combined limit applies only when the fermentation process is in normal operation, i.e., the condensers and scrubber operate simultaneously.

[(2)]The combined limit applies to: (1) Fermentation, when in normal operation, i.e., the condensers and scrubber operate simultaneously (EP-S20 and EP-S130); (2) Centrifuges and Dryers (EP-S240 and EP-S50); and (3) DDGS Coolers and Loadout (EP-S41 and EP-S42). The combines limit does not apply to the fermentation process when the condensers are off-line.

Emission Limits – Simultaneous Operation of Condensers and Scrubber

Emission Point(s)	Pollutant	Lb/hr	Reference
S20 & S130	Single HAP	1.87	DNR Construction Permits 03-A-622-S15 & 16-A-488-S6
	Total HAP	4.50	

Emission Limits – Fermentation Operation When Condensers are Off-Line

Emission Point(s)	Pollutant	Lb/hr	Reference
S20	VOC	5.06[(1)]	DNR Construction Permits 03-A-622-S15 & 16-A-488-S6
	Single HAP	0.80[(1)]	
	Total HAP	0.83[(1)]	
S130 (CE 30A) S130 (CE 30B)	VOC	9.36[(2)]	
	Single HAP	0.56[(2)]	
	Total HAP	0.61[(2)]	

[(1)]Limit applies when Condenser CE-20A is offline.

[(2)]Limit applies when either Condenser CE-30A or CE-30B is off-line.

Emission Limits – All Operations per emission point

Emission Point	Pollutant	Lb/hr	Other Limits	Reference
S20 & S130	Opacity[(1)]	NA	40%	567 IAC 23.3(2)"d"
	Particulate Matter (PM)	NA	0.1 gr/dscf	567 IAC 23.4(7)
		0.20	NA	DNR Construction Permits 03-A-622-S15 & 16-A-488-S6
	PM_{10}	0.20	NA	DNR Construction Permits 03-A-622-S15 & 16-A-488-S6
	$PM_{2.5}$	0.20	NA	DNR Construction Permits 03-A-622-S15 & 16-A-488-S6

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

Operational Limits & Reporting/Record keeping Requirements

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

Control Equipment General Requirements

A. The owner or operator shall operate, inspect, and maintain the control equipment described above according to the manufacturer's specifications and instructions.
    i. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include the following:
        a. The date that any inspection and/or maintenance was performed on the control equipment;
            1. The owner or operator shall conduct inspection activities at a minimum of once per calendar year.
        b. Any issues identified during inspection and maintenance activities;
        c. The date each issue was resolved; and
        d. Identification of the staff member performing the maintenance or inspection.

B. The owner or operator shall maintain copies of the most recent performance tests for each of the Fermentation Scrubber (CE-20 and CE-130) that demonstrated compliance with all applicable emission limits. The performance tests shall include operating scenario data detailing the scrubber pressure drop, scrubber liquid flow rate, additive feed rate, beer feed production rate, and average emission rate measured during each performance test which demonstrated compliance with all applicable emission limitations.

Fermentation Scrubber (CE-20 and CE-130) Requirements

C. The owner or operator shall operate the Fermentation Scrubber (CE-20 and CE-130) whenever any of the emission units that went to them is in operation.

Pressure Drop Monitoring Requirements

D. The owner or operator shall maintain a 3-hour rolling differential pressure drop average across each Fermentation Scrubber (CE-20 and CE-130) between 1.5 and 29 inches of water column.

i. The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the differential pressure drop across each Fermentation Scrubber (CE-20 and CE-130). The equipment shall be installed, operated, and maintained according to the manufacturer's recommendations, instructions, and operating manuals.

ii. The owner or operator shall collect and record the differential pressure drop, in inches of water column, across each Fermentation Scrubber (CE-20 and CE-130) at a minimum of once every 15 minutes and calculate and record the 3-hour rolling average. The 3-hour rolling average differential pressure drop across each Fermentation Scrubber (CE-20 and CE-130) shall be calculated using all data points collected during the averaging period.

iii. If any of the 3-hour rolling differential pressure drop averages falls outside the required range, the owner or operator shall record the time, date, and actions taken to correct the situation. The owner or operator shall also record when the 3-hour rolling differential pressure drop average is back within the required range.

iv. The requirements in Conditions D.ii and D.iii shall not apply during periods that any of the emissions units covered by this permit and the Fermentation Scrubber (CE-20 and CE-130) are not in operation.

Total Water Flow Rate Monitoring Requirements

E. The owner or operator shall maintain a 3-hour rolling average of the total water flow rate (in gallons per minute) supplied to each Fermentation Scrubber (CE-20 and CE-130) at or above the average rate observed during the most recent stack test that demonstrated compliance with the applicable emission limits.

i. The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the total water flow rate supplied to each Fermentation Scrubber (CE-20 and CE-130). The equipment shall be installed, operated, and maintained according to the manufacturer’s recommendations, instructions, and operating manuals.

ii. The owner or operator shall collect and record the total water flow rate, in gallons per minute, supplied to each Fermentation Scrubber (CE-20 and CE-130) at a minimum of once every 15 minutes and calculate and record the 3-hour rolling average. The 3-hour rolling average shall be calculated using all data points collected during the averaging period.

iii. If any of the 3-hour rolling total water flow rate averages falls below the minimum required value, the owner or operator shall record the time, date, and actions taken to correct the situation. The owner or operator shall also record when the 3-hour rolling water flow rate average is back at or above the minimum required value.

iv. A lower total water flow rate below the average rate observed during the most recent stack test that demonstrated compliance with the emission limits, required the owner or operator to first obtain a variance to test that lower rate. The owner or operator shall submit the rest results to the Department for review and approval. Once the test results are approved, the owner or operator shall be allowed to use the lower total water flow rate.

v. The requirements in conditions E.ii and E.iii shall not apply during periods that any of the emission units covered by this permit and the Fermentation Scrubber (CE-20 and CE-130) are not in operation.

Additive Feed Rate Monitoring Requirements

F. The owner or operator shall maintain a 3-hour rolling additive flow rate (in milliliters per minute) average supplied to each Fermentation Scrubber (CE-20 and CE-130) at or above the average rate observed during the most recent stack test that demonstrated compliance with the applicable emission limits.

i. The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the additive flow rate supplied to each Fermentation Scrubber (CE-20 and CE-130). The equipment shall be installed, operated, and maintained according to the manufacturer's recommendations, instructions, and operating manuals.

ii. The owner or operator shall collect and record the additive flow rate, in milliliters per minute, supplied to each Fermentation Scrubber (CE-20 and CE-130) at a minimum of once every 15 minutes and calculate and record the 3-hour rolling average. The 3-hour rolling average shall be calculated using all data points collected during the averaging period.

iii. If any of the 3-hour rolling additive flow rate averages falls below the minimum required value, the owner or operator shall record the time, date, and actions taken to correct the situation. The owner or operator shall also record when the 3-hour rolling additive flow rate average is back at or above the minimum required value.

iv. Use of a different additive and/or use of a lower additive feed rate requires the owner or operator to first obtain a variance to test the lower additive flow rate. The owner or operator shall submit the test results to the Department for review and approval. Once the test results are approved, the owner or operator shall be allowed to use the lower additive flow rate.

v. The requirements in Permit Conditions F.ii and F.iii shall not apply during periods that any of the emission units covered by this permit and the Fermentation Scrubbers (CE-20 and CE-130) are not in operation.

Fermentation Condensers (CE-20A, CE-30A, and CE-30B) Requirements

G. Each Fermentation Condenser (CE-20A, CE30A, and CE-30B) shall be allowed to be off-line for no more than 40 hours per 12-month rolling period.

i. The owner or operator shall record the monthly total hours that each Fermentation Condenser (CE-20A, CE-30A, and CE-30B) was off-line.

ii. The owner or operator shall calculate and record the total hours that each Fermentation Condenser (CE-20A, CE-30A, and CE30B) was off-line on a

rolling 12-month basis.

H. The owner or operator shall maintain the recirculating water flow rate for each Fermentation Condenser (CE-20A, CE-30A, and CE-30B) at or above 7 gallons per minute on a continuous basis. The owner or operator shall initiate corrective actions whenever the recirculating water flow rate falls below the minimum required.
   i. The owner or operator shall properly operate and maintain equipment to monitor the recirculating water flow rate for each Fermentation Condenser (CE-20A, CE-30A, and CE-30B). The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals or per written facility specific operation and maintenance plan.
   ii. The owner or operator shall collect and record recirculating water flow rate for each Fermentation Condenser (CE-20A, CE-30A, and CE-30B), in gallons per minute, continuously. If the recirculating water flow rate for any of the Fermentation Condensers (CE-20A, CE-30A, and CE-30B) falls outside the rage specified in Condition H, the owner or operator shall investigate the applicable fermentation condenser(s) and make corrections to the affected condenser(s). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Fermentation Condensers (CE-20A, CE-30A, and CE-30B) are not in operation.

HAP Emission Limits Requirements

General Requirements

I. The Single HAP and Total HAP emission limits shall apply to the combined operation of the following processes and equipment:
   i. Fermentation- Normal Operation (EP-S20 and EP-S130). During normal operation, Fermentation Condensers (CE-20A, CE-30A, and CE-30B) and the Fermentation Scrubbers (CE-20 and CE-130) are used simultaneously.
   ii. DDGS Dryers and Centrifuges (EP-S40 and EP-S50).
   iii. DDGS Coolers and Loadout (EP-S41 and EP-S42).

J. The Fermentation – Normal Operation (EP-S20 and EP-S130), the DDGS Dryers and Centrifuge (EP-S40 and EP-S50), and the DDGS Coolers and Loadout (EP-S41 and EP-S42) are hereafter referred to as: *"all emission limit cap sources."*

K. The owner or operator shall maintain daily records of the total that the *"all emissions limit cap sources"* operated.

Single HAP Emissions Calculations Requirements

L. The owner or operator shall calculate Single HAP (SHAP) emissions, in tons, from the operation of the processes and equipment listed in Permit Condition I using the following equation:

   a. $SHAP_{Total} = \sum[(S\_ER * HR) * (1 \text{ ton}/2000 \text{ pounds})]$

Where:

$SHAP_{Total}$ = Total tons of Single HAP emissions emitted by the "*all emission limit cap sources*" during the emissions calculation period.

S_ER = Average Single HAP emission rate from the most recent performance test on each of the "*all emission limit cap sources*" that demonstrated compliance with the emission limits in Permit Condition 1, Table 2.

HR = Total hours of operation for the "*all emission limit cap sources*" during the emissions calculation period.

M. The owner or operator shall record the total monthly amount, in tons, of Single HAP emitted by the *"all emission limit cap sources."* The owner or operator shall calculate total monthly Single HAP emissions using the equation in Permit Condition L.

N. The owner or operator shall calculate and record the total amount, in tons, of Single HAP emitted by the *"all emission limit cap source"* on a rolling 12-month basis.

O. The owner or operator shall implement the following procedure if the 12-month rolling total amount of Single HAP emitted by the *"all emission limit cap sources"* exceeds 6.20 tons.

i. The owner or operator shall record the total daily amount, in tons, of Single HAP emitted by the *"all emission limit cap sources."* The owner or operator shall calculate total daily Single HAP emissions using the equation in Permit Condition L.

a. The owner or operator shall calculate and record the total amount, in tons, of Single HAP emitted by the *"all emission limit cap sources"* on a rolling 365-day basis.

b. Calculation and recordkeeping of Single HAP emissions from data collected on Saturdays and Sundays shall by conducted on Mondays.

c. Calculation and recordkeeping of Single HAP emissions shall not be required when emissions to not occur.

d. Daily Single HAP emissions calculations as specified in this permit condition shall continue until the rolling 12-month total drops below 6.20 tons on the last day of the following month, at which time rolling daily Single HAP emissions calculations shall cease.

Total HAP Emissions Calculations Requirements

P. The owner or operator shall calculate Total HAP (THAP) emissions, in tons, from the operation of the processes and equipment listed in Condition I using the following equation:

i. $THAP_{Total} = \sum[(T\_ER * HR) * (1 \text{ ton}/2000 \text{ pounds})]$

Where:
$THAP_{Total}$ = Total tons of Total HAP emissions emitted by the "*all emission limit cap sources*" during the emissions calculation period.

T_ER = Average Total HAP emission rate from the most recent performance test on each of the "*all emission limit cap sources*" that demonstrated compliance with the emission limits..

HR = Total hours of operation for the "*all emission limit cap sources*" during the emissions calculation period.

Q. The owner or operator shall record the total monthly amount, in tons, of Total HAP emitted by *"all emissions limit cap sources."* The owner or operator shall calculate total monthly Total HAP emissions using the equation in Permit Condition P.

R. The owner or operator shall calculate and record the total amount, in tons of Total HAP emitted by the *"all emission limit cap source"* on a rolling 12-month basis.

S. The owner or operator shall implement the following procedure if the 12-minth rolling total amount of Total HAP emitted by the *"all emission limit cap sources"* exceeds 14.10 tons.

i. The owner or operator shall record the total daily amount, in tons, of Total HAP emitted by the *"all emission limit cap sources."* The owner or operator shall calculate total daily Total HAP emissions using the equation in Permit Condition P.

a. The owner or operator shall calculate and record the total amount, in tons, of Total HAP emitted by the *"all emission limit cap sources"* on a rolling 365-day basis.

b. Calculation and recordkeeping of Total HAP emissions from data collected on Saturdays and Sundays shall be conducted on Mondays.

c. Calculation and recordkeeping of Total HAP emissions shall not be required when emissions do not occur.

d. Daily Total HAP emissions calculations as specified in this permit condition shall continue until the rolling 12-month total drops below 14.10 tons on the last days of the following month, at which time rolling daily Total HAP emissions calculations shall cease.

Authority of Requirement: DNR Construction Permits 03-A-622-S15, 16-A-488-S6

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S20	48.2	15	3,500	80	Vertical Unobstructed	03-A-622-S15
S130	74.25	18	8,000	80	Vertical Unobstructed	16-A-488-S6

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

Compliance Demonstration(s) and Performance Testing

Emission Point	Pollutant	Methodology	Frequency	Test Run Time	Test Methodology
S20, S130	VOC	Stack Testing[(1)(2)]	Once per calendar year	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
	HAP	Stack Testing[(2)(3)]	Once per calendar year	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

[(1)]VOC initial and periodic stack testing shall be performed simultaneously on EP-S20 and EP-S130 to demonstrate compliance with the combined emission limit. Stack testing includes testing only under normal operation (Condensers CE-20A, CE-30A, and CE-30B on-line). The VOC testing shall be determined using the sum of the Method 320 or Method 18 results.

[(2)]Periodic testing on EP-S20 and EP-S130 shall be conducted once each calendar year during the months of June, July, or August. After the completion of three consecutive tests that demonstrate compliance with the VOC and HAP emission limits , the owner or operator may request to modify the testing frequency for VOC and HAP.

[(3)]During HAP initial and periodic testing, acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. Stack testing includes testing only under normal operation (Condensers CE-20A, CE-30A, and CE-30B on-line). All compounds that test below detection limit shall be assumed to be emitting at a rate equal to the Method 320 or 18 detection limits.

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 24.108(3)

Emission Point ID Numbers: S40 and S50 Regenerative Thermal Oxidizers #1 and #2; S79 Centrifuges #3 and #4

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
S40	EU40	DDGS Dryer #1	CE40; Multi Cyclone & CE42; Regenerative Thermal Oxidizer; Maximum Heat Input: 16 MMBtu/hr)	Dried Distillers Grains (DDGS)	Heat Input: 50 MMBtu/hr; Maximum Capacity: 11.39 tons of dried DDGS per hour	03-A-624-S12
S40A (bypass)	EU40	DDGS Dryer #1	Multi-Cyclone (CE40)	Dried Distillers Grains (DDGS)	11.39 tons dried DDGS/hour, 50 MMBtu/hour	23-A-393
*S50	EU68	DDGS Dryer A	CE50; Regenerative Thermal Oxidizer; Maximum Heat Input: 13.5 MMBtu/hr)	Dried Distillers Grains (DDGS)	Heat Input: 40 MMBtu/hr; Maximum Capacity: 15.0 tons of dried DDGS per hour	16-A-490-S5
	EU69	DDGS Dryer B		Dried Distillers Grains (DDGS)	Heat Input: 40 MMBtu/hr; Maximum Capacity: 15.0 tons of dried DDGS per hour	
	EU77	Centrifuge #3		Whole Stillage	255 gallons/minute	
	EU78	Centrifuge #4			255 gallons/minute	
	EU79	Centrifuge #5			500 gallons/minute	
	EU80	Centrifuge #6			500 gallons/minute	
*S79 (bypass)	EU77	Centrifuge #3	None		255 gallons/minute	16-A-493-S3
	EU78	Centrifuge #4			255 gallons/minute	
	EU79	Centrifuge #5			500 gallons/minute	
	EU80	Centrifuge #6			500 gallons/minute	

*Combined Maximum Process Design Capacity for Centrifuge #3 (EU77), Centrifuge #4 (EU78), Centrifuge #5 (EU79, and Centrifuge #6 (EU80): 1,050 gallons per minute

Applicable Requirements

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

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

Combined Emission Limits:

Emission Point	Pollutant	Lb/hr	Tons/yr
S40, S50	Single HAP	NA	7.70[(1)]
	Total HAP	NA	17.66[(1)]

[(1)]The combined limit applies to: (1) Fermentation, when in normal operation, i.e., the condensers and scrubbers operate simultaneously (EP-S20 and EP-S130); (2) DDGS Dryers and Centrifuges (EP-S40 and EP-S50); and (3) DDGS Coolers and Loadout (EP-S41 and EP-S42). The combined limit does not apply to the fermentation process when the condensers are offline.

Emission Limits per Emission Point:

Emission Point	Pollutant	Lb/hr	Other Limits	Reference
S40	Particulate Matter (PM)	6.51	0.1 gr/dscf	567 IAC 23.4(7), DNR Construction Permit 03-A-624-S12
	PM_{10}	6.51	NA	DNR Construction Permit 03-A-624-S12
	$PM_{2.5}$	6.51	NA	DNR Construction Permit 03-A-624-S12
	Opacity	NA	40%[(1)]	567 IAC 23.3(2)"d", DNR Construction Permit 03-A-624-S12
	Sulfur Dioxide (SO_2)	9.81	500 ppm_v	567 IAC 23.3(3)"e" DNR Construction Permit 03-A-624-S12
	Nitrogen Oxides (NO_x)	16.0	NA	DNR Construction Permit 03-A-624-S12
	VOC	15.0	NA	DNR Construction Permit 03-A-624-S12
	Carbon Monoxide (CO)	13.75	NA	DNR Construction Permit 03-A-624-S12
	Single HAP	1.87	NA	DNR Construction Permit 03-A-624-S12
	Total HAP	4.50	NA	DNR Construction Permit 03-A-624-S12
S50	Particulate Matter (PM	9.90	0.1 gr/dscf	567 IAC 23.4(7), DNR Construction Permit 16-A-490-S5
	PM_{10}	9.90	NA	DNR Construction Permit 16-A-490-S5
	$PM_{2.5}$	9.0	NA	DNR Construction Permit 16-A-490-S5

Emission Point	Pollutant	Lb/hr	Other Limits	Reference
	Opacity	NA	40%(1)	567 IAC 23.3(2)"d", DNR Construction Permit 16-A-490-S5
	Sulfur Dioxide (SO_2)	10.0	500ppm$_v$	567 IAC 23.3(3)"e" DNR Construction Permit 16-A-490-S5
	Nitrogen Oxides (NO_x)	9.30	NA	DNR Construction Permit 16-A-490-S5
	VOC	10.6	NA	DNR Construction Permit 16-A-490-S5
	Carbon Monoxide (CO)	18.0	NA	DNR Construction Permit 16-A-490-S5
	Single HAP	1.87	NA	DNR Construction Permit 16-A-490-S5
	Total HAP	4.50	NA	DNR Construction Permit 16-A-490-S5
S79 (bypass)	Particulate Matter (PM)	NA	0.1 gr/dscf	567 IAC 23.4(7), DNR Construction Permit 16-A-493-S3
	Opacity	NA	40%(2)	567 IAC 23.3(2)"d", DNR Construction Permit 16-A-493-S3
	VOC	1.90(4)	NA	DNR Construction Permit 16-A-493-S3
	Single HAP	0.03(4)	NA	DNR Construction Permit 16-A-493-S3
	Total HAP	0.03(4)	NA	DNR Construction Permit 16-A-493-S3
S40A (bypass)	Particulate Matter (PM)	6.36(3)	0.1 gr/dscf	567 IAC 23.4(7) DNR Construction Permit 23-A-393
	Opacity	NA	40%(1)	567 IAC 23.3(2)"d" DNR Construction Permit 23-A-393
	Sulfur Dioxide (SO_2)	9.80(3)	500 ppm$_v$	567 IAC 23.3(3)"e" DNR Construction Permit 23-A-393
	Nitrogen Oxides (NO_x)	14.24(3)	NA	DNR Construction Permit 23-A-393
	Volatile Organic Compounds (VOC)	73.90(3)	NA	DNR Construction Permit 23-A-393
	Carbon Monoxide (CO)	12.27(3)	NA	DNR Construction Permit 23-A-393
	Single HAP	12.50(3)	NA	DNR Construction Permit 23-A-393
	Total HAP	30.20(3)	NA	DNR Construction Permit 23-A-393

[1]An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance.
[2]An exceedance of the indicator opacity of 25% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[3]The limit applies to DDGS Dryer #1 (EU-40) when RTO #1 (CE-42) is bypassed. As indicated in the permit conditions, the DDGS Dryer #1 is restricted to bypass RTO #1 (CE-42) for no more than 150 hours per 12-month rolling period.
[4]The limit applies to Centrifuge #3 (EU-77), Centrifuge #4 (EU-78), Centrifuge #5 (EU-79), and Centrifuge #6 (EU-80) when RTO #2 (CE-50) is bypassed. As indicated in the permit conditions, these centrifuges are restricted to bypass RTO #2 (CE_50) for no more than 500 hours per 12-month rolling period.

Operational Limits & Reporting/Record keeping Requirements

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

General and Control Equipment Requirements

A. The owner or operator may operate Emission Points S40 and S50 under (1) *Operating Scenario #1* or (2) *Operating Scenario 2*.
   (1) *Operating Scenario #1*: The owner or operator shall utilize stack gas heat for process heat by installing a shell-in-tube heat exchanger downstream of each regenerative thermal oxidizer [(RTO #1, CE-42) and (RTO #2, CE-50)].
   (2) *Operating Scenario #2*: The owner or operator shall bypass the shell-in-tube heat exchanger by directing the exhaust from the affected regenerative thermal oxidizer [(RTO #1, CE-42) and/or (RTO #2, CE-50)] to the applicable stack (EP-S40 and/or EP-S50).

B. The owner or operator shall combust only natural gas and/or process off-gasses in the DDGS Dryers (EU- 40, EU-68, and EU-69) and associated Regenerative Thermal Oxidizers [(RTO #1, CE-42) and (RTO #2, CE-50)].
   (1) The owner or operator shall maintain a record of the type of fuel burned in the DDGS Dryers (EU-40, EU-68, and EU-69) and associated Regenerative Thermal Oxidizers [(RTO #1, CE-42) and (RTO #2, CE-50)].

C. The owner or operator shall operate RTO #1 (CE-42) and RTO #2 (CE-50) whenever the emission units listed above are in operation, except for the bypass periods described below.
   (1) DDGS Dryer #1 (EU-40) shall not bypass RTO #1 (CE-42) for more than 150 hours per rolling 12-month period.
      a. The owner or operator shall record the total number of hours that DDGS Dryer #1 (EU-40) bypasses RTO #1 (CE-42) on a monthly basis.
      b. The owner or operator shall calculate and record the total number of hours that DDGS Dryer #1 (EU-40) bypasses RTO #1 (CE-42) on a rolling 12-month basis.
   (2) Centrifuge #3 (EU-77), Centrifuge #4 (EU-78), Centrifuge #5 (EU-79), and Centrifuge #6 (EU-80) shall not bypass RTO #2 (CE-50) for more than 500 hours per rolling 12-month period.

a. The owner or operator shall record the total number of hours that Centrifuge #3 (EU-77), Centrifuge #4 (EU-78), Centrifuge #5 (EU-79), and Centrifuge #6 (EU-80) bypass RTO #2 (CE-50) on a monthly basis.
b. The owner or operator shall calculate and record the total number of hours that Centrifuge #3 (EU-77), Centrifuge #4 (EU-78), Centrifuge #5 (EU-79), and Centrifuge #6 (EU-80) bypass RTO #2 (CE-50) on a rolling 12-month basis.

D. The owner or operator shall maintain a 3-hour rolling operating temperature average of no less than 50 degrees Fahrenheit below the average operating temperature that RTO #1 (CE-42) and RTO #2 (CE-50) recorded during the most recent performance test that demonstrated compliance with the applicable emission limits.
(1) The owner or operator shall install, operate, and maintain equipment necessary to continuously monitor the operating temperature for RTO #1 (CE-42) and RTO #2 (CE-50). The equipment shall be installed, operated, and maintained according to the manufacturer's recommendations, instructions, and operating manuals.
(2) The owner or operator shall collect and record the operating temperature, in degrees Fahrenheit, for RTO #1 (CE-42) and RTO #2 (CE-50) at a minimum of once every 15 minutes and calculate and record the 3-hour rolling average. The 3-hour rolling operating temperature average for RTO #1 (CE-42) and RTO #2 (CE-50) shall be calculated using all data points collected during the averaging period.
(3) If any of the 3-hour rolling operating temperature averages falls outside the required value, the owner or operator shall record the time, date, and actions taken to correct the situation. The owner or operator shall also record when the 3-hour rolling operating temperature average is back within the required value.
(4) The requirements in Permit Conditions D.(2) and D.(3) shall not apply during periods that any of the emission units described above and associated RTO are not in operation.

E. The owner or operator shall operate, inspect, and maintain the control equipment described above according to the manufacturer's specifications and instructions.
(1) The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include the following:
a. The date that any inspection and/or maintenance was performed on the control equipment;
i. The owner or operator shall conduct inspection activities at a minimum of once per calendar year.
b. Any issues identified during inspection and maintenance activities;
c. The date each issue was resolved; and
d. Identification of the staff member performing the maintenance or inspection.

F. The owner or operator shall maintain copies of the most recent performance tests for RTO #1 (CE-42) and RTO #2 (CE-50) that demonstrated compliance with the applicable emission limits The performance tests shall include operating scenario data detailing the RTO operating temperature and average emission rate measured during

each performance test which demonstrated compliance with all applicable emission limitations.

HAP Emission Limits Requirements

General Requirements

G. The Single HAP and Total HAP emission limits shall apply to the combined operation of the following processes and equipment:
   (1) Fermentation - Normal Operation (EP-S20 and EP-S130). During normal operation, Fermentation Condensers (CE-20A, CE-30A, and CE-30B) and the Fermentation Scrubbers (CE-20 and CE-130) are used simultaneously.
   (2) DDGS Dryers and Centrifuges (EP-S40 and EP-S50).
   (3) DDGS Coolers and Loadout (EP-S41 and EP-S42).

H. The Fermentation - Normal Operation (EP-S20 and EP-S130), the DDGS Dryers and Centrifuge (EP-S40 and EP-S50), and the DDGS Coolers and Loadout (EP-S41 and EP-S42) are hereafter referred to as: "*all emission limit cap sources*."

I. The owner or operator shall maintain daily records of the total that the "*all emission limit cap sources*" operated.

Single HAP Emissions Calculations Requirements

J. The owner or operator shall calculate Single HAP (SHAP) emissions, in tons, from the operation of the processes and equipment listed in Permit Condition F using the following equation:
   (1) $SHAP_{Total} = \sum[(S\_ER * HR) * (1 \text{ ton}/2000 \text{ pounds})]$
   Where:
   $SHAP_{Total}$ = Total tons of Single HAP emissions emitted by the "*all emission limit cap sources*" during the emissions calculation period.
   S_ER = Average Single HAP emission rate from the most recent performance test on each of the "*all emission limit cap sources*" that demonstrated compliance with the emission limits.
   HR = Total hours of operation for the "*all emission limit cap sources*" during the emissions calculation period.

K. The owner or operator shall record the total monthly amount, in tons, of Single HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total monthly Single HAP emissions using the equation in Permit Condition J.

L. The owner or operator shall calculate and record the total amount, in tons, of Single HAP emitted by the "*all emission limit cap source*" on a rolling 12-month basis.

M. The owner or operator shall implement the following procedure if the 12-month rolling total amount of Single HAP emitted by the "*all emission limit cap sources*" exceeds 6.20 tons.
   (1) The owner or operator shall record the total daily amount, in tons, of Single HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total daily Single HAP emissions using the equation in Permit Condition J.
      a. The owner or operator shall calculate and record the total amount, in tons, of Single HAP emitted by the "*all emission limit cap sources*"

on a rolling 365-day basis.

b. Calculation and recordkeeping of Single HAP emissions from data collected on Saturdays and Sundays shall be conducted on Mondays.
c. Calculation and recordkeeping of Single HAP emissions shall not be required when emissions do not occur.
d. Daily Single HAP emissions calculations as specified in this permit condition shall continue until the rolling 12-month total drops below 6.20 tons on the last day of the following month, at which time rolling daily Single HAP emissions calculations shall cease.

Total HAP Emissions Calculations Requirements

N. The owner or operator shall calculate Total HAP (THAP) emissions, in tons, from the operation of the processes and equipment listed in Permit Condition F using the following equation:

(1) $THAP_{Total} = \sum[(T\_ER * HR) * (1 \text{ ton}/2000 \text{ pounds})]$

Where:

$THAP_{Total}$ = Total tons of Total HAP emissions emitted by the "*all emission limit cap sources*" during the emissions calculation period.

T_ER = Average Total HAP emission rate from the most recent performance test on each of the "*all emission limit cap sources*" that demonstrated compliance with the emission limits.

HR = Total hours of operation for the "*all emission limit cap sources*" during the emissions calculation period

O. The owner or operator shall record the total monthly amount, in tons, of Total HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total monthly Total HAP emissions using the equation in Permit Condition N.

P. The owner or operator shall calculate and record the total amount, in tons, of Total HAP emitted by the "*all emission limit cap source*" on a rolling 12-month basis.

Q. The owner or operator shall implement the following procedure if the 12-month rolling total amount of Total HAP emitted by the "*all emission limit cap sources*" exceeds 14.10 tons.

(1) The owner or operator shall record the total daily amount, in tons, of Total HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total daily Total HAP emissions using the equation in Permit Condition N.

a. The owner or operator shall calculate and record the total amount, in tons, of Total HAP emitted by the "*all emission limit cap sources*" on a rolling 365-day basis.
b. Calculation and recordkeeping of Total HAP emissions from data collected on Saturdays and Sundays shall be conducted on Mondays.
c. Calculation and recordkeeping of Total HAP emissions shall not be required when emissions do not occur.
d. Daily Total HAP emissions calculations as specified in this permit

condition shall continue until the rolling 12-month total drops below 14.10 tons on the last day of the following month, at which time rolling daily Total HAP emissions calculations shall cease.

Authority for Requirement: DNR Construction Permits 03-A-624-S12, 23-A-393, 16-A-490-S5, 16-A-493-S3

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

EP ID	Stack Height (feet)	Discharge Style	Stack Opening (inches, dia)	Stack Temperature (°F)	Exhaust Flowrate (scfm)
EP-S40	75.5	Vertical, unobstructed	44.4	415	24,400
EP-S40A (bypass)	30	Vertical, unobstructed	42	272	24,400
EP-S50	125	Vertical, unobstructed	84	415	46,500
EP-S79 (bypass)	34.6	Horizontal	6	152	100

Authority for Requirement: DNR Construction Permits 03-A-624-S12, 23-A-393, 16-A-490-S5, 16-A-493-S3

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

Compliance Demonstration(s) and Performance Testing

EP ID	Pollutant	Compliance Methodology	Frequency	Test Method
S40, S50	NOX	Stack Testing(1)	Initial(2)	40 CFR 60, Appendix A, Method 7E
			Once Every 3 Calendar Years(3)	
	VOC	Stack Testing(1)	Initial(2)	40 CFR 63,Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
			Once Every 3 Calendar Years(3)	
	CO	Stack Testing(1)	Initial(2)	40 CFR 60, Appendix A, Method 10
			Once Every 3 Calendar Years(3)	
	HAP	Stack Testing(1)(4)	Initial(2)	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
			Once Every 3 Calendar Years(3)	

(1)NO_x, VOC, CO, and HAP initial and periodic testing on EP-S40 and EP-S50 to demonstrate compliance with the applicable emission limits shall be conducted with all equipment operating under normal conditions, i.e., no RTO bypass.

(2)NO_x, VOC, CO, and HAP initial testing while EP-S40 and EP-S50 is in *Operating Scenario #1* [see Permit Condition 5.A.(1)] shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup date of the proposed installation of the shell-in-tube heat exchanger downstream of RTO #1.

(3)The next NO_x, VOC, CO, and HAP periodic testing while EP-S40 and EP-S50 is in *Operating Scenario #2* [see Permit Condition A.(2)] shall be conducted during Year 2026. Subsequent NO_x, VOC, CO, and HAP tests on EP-S40 and EP-S50 shall and be conducted once every three calendar years while alternating *Operating Scenarios #1 and #2*.

(4)Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. All compounds that test below detection limit shall be assumed to be emitting at a rate equal to the Method 320 or 18 detection limits.

Authority for Requirement: DNR Construction Permits 03-A-624-S12, 23-A-393, 16-A-490-S5, and 16-A-492-S3

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

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

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

Conditions listed in the Operational Limits & Reporting/Record keeping Requirements are CAM equivalent. No additional CAM plan is required.

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S41 DDGS Cooler #1 and S42 DDGS Cooler #2

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
S41	EU41	DDGS Cooler #1	CE41; Pulse Jet Baghouse	Dried Distillers Grains (DDGS)	12.5 tons DDGS/hour	03-A-625-S9
S42	EU43	DDGS Cooler #2	CE42-2; Pulse Jet Baghouse	Dried Distillers Grains (DDGS)	20.5 tons DDGS/hour	16-A-491-S4
	EU-FS007 Loadout	Loadout (DDGS Handling #2)			150 tons/hour	

Applicable Requirements

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

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

Combined Emission Limits:

Emission Point	Pollutant	Tons/yr	Reference
S-41 and S-42	Single HAP	7.70[(1)]	DNR Construction Permits 03-A-625-S9, 16-A-491-S4
	Total HAP	17.66[(1)]	

[(1)]The Combined limit applies to (1) Fermentation, when in normal operation, i.e., the condensers and scrubbers operate simultaneously (EP -S20 and EP-S130); (2) DDGS Dryers and Centrifuges (EP-S40 and EP-S50); and (3) DDGS Coolers and Loadout (EP-S41 and EP-S42). The combined limit does not apply to the fermentation process when the condensers are off-line.

Separate Emission Limits:

Emission Point	Pollutant	Lb/hr	Other limits	Reference
S-41	Particulate Matter (PM)	1.0	0.1 gr/dscf	567 IAC 23.4(7), DNR Construction Permit 03-A-625-S9
	PM_{10}	1.0	NA	DNR Construction Permit 03-A-625-S9
	$PM_{2.5}$	1.0	NA	DNR Construction Permit 03-A-625-S9
	Opacity	NA	40%[(1)]	567 IAC 23.3(2)"d", DNR Construction Permit 03-A-625-S9
	Volatile Organic Compounds (VOC)	4.50	NA	DNR Construction Permit 03-A-625-S9
	Single HAP	1.87	NA	DNR Construction Permit 03-A-625-S9
	Total HAP	4.50	NA	DNR Construction Permit 03-A-625-S9

Emission Point	Pollutant	Lb/hr	Other limits	Reference
S-42	Particulate Matter (PM)	4.0	0.1 gr/dscf	567 IAC 23.4(7), DNR Construction Permit 16-A-491-S4
	PM_{10}	4.0	NA	DNR Construction Permit 16-A-491-S4
	$PM_{2.5}$	4.0	NA	DNR Construction Permit 16-A-491-S4
	Opacity	NA	40%[(1)]	567 IAC 23.3(2)"d", DNR Construction Permit 16-A-491-S4
	Volatile Organic Compounds (VOC)	4.56	NA	DNR Construction Permit 16-A-491-S4
	Single HAP	1.87	NA	DNR Construction Permit 16-A-491-S4
	Total HAP	4.50	NA	DNR Construction Permit 16-A-491-S4

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

Operational Limits & Reporting/Record keeping Requirements

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

General and Control Equipment Requirements

A. The owner or operator is limited to a maximum facility production of 289,000 tons of Distillers Grains (DDGS ~10% Moisture Content, Modified ~50% Moisture Content, and Wetcake) based on dry basis per rolling 12-month period.
   (1) The owner or operator shall record the amount of Distillers Grains (dry basis), in tons, produced at the facility on a monthly basis.
   (2) The owner or operator shall calculate and record the amount of Distillers Grains (dry basis), in tons, produced at the facility on a rolling 12-month basis.

B. The owner or operator shall operate, inspect, and maintain the control equipment described above according to the manufacturer's specifications and instructions.
   (1) The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. At a minimum, this log shall include the following:
      a. The date that any inspection and/or maintenance was performed on the control equipment;
         i. The owner or operator shall conduct inspection activities at a minimum of once per calendar year.
      b. Any issues identified during inspection and maintenance activities;
      c. The date each issue was resolved; and

d. Identification of the staff member performing the maintenance or inspection.

HAP Emission Limits Requirements

General Requirements

C. The Single HAP and Total HAP emission limits shall apply to the combined operation of the following processes and equipment:
   (1) Fermentation - Normal Operation (EP-S20 and EP-S130). During normal operation, Fermentation Condensers (CE-20A, CE-30A, and CE-30B) and the Fermentation Scrubbers (CE-20 and CE-130) are used simultaneously.
   (2) DDGS Dryers and Centrifuges (EP-S40 and EP-S50).
   (3) DDGS Coolers and Loadout (EP-S41 and EP-S42).

D. The Fermentation - Normal Operation (EP-S20 and EP-S130), the DDGS Dryers and Centrifuge (EP-S40 and EP-S50), and the DDGS Coolers and Loadout (EP-S41 and EP-S42) are hereafter referred to as: "*all emission limit cap sources*."

E. The owner or operator shall maintain daily records of the total that the "*all emission limit cap sources*" operated.

Single HAP Emissions Calculations Requirements

F. The owner or operator shall calculate Single HAP (SHAP) emissions, in tons, from the operation of the processes and equipment listed in Permit Condition C using the following equation:
   (1) $SHAP_{Total} = \sum[(S\_ER * HR) * (1 \text{ ton}/2000 \text{ pounds})]$
   Where:

   $SHAP_{Total}$ = Total tons of Single HAP emissions emitted by the "*all emission limit cap sources*" during the emissions calculation period.

   S_ER = Average Single HAP emission rate from the most recent performance test on each of the "*all emission limit cap sources*" that demonstrated compliance with the combined emission limits for Single HAP and Total HAP.

   HR = Total hours of operation for the "*all emission limit cap sources*" during the emissions calculation period.

G. The owner or operator shall record the total monthly amount, in tons, of Single HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total monthly Single HAP emissions using the equation in Permit Condition F.

H. The owner or operator shall calculate and record the total amount, in tons, of Single HAP emitted by the "*all emission limit cap source*" on a rolling 12-month basis.

I. The owner or operator shall implement the following procedure if the 12-month rolling total amount of Single HAP emitted by the "*all emission limit cap sources*" exceeds 6.20 tons.
   (1) The owner or operator shall record the total daily amount, in tons, of Single HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total daily Single HAP emissions using the equation in Permit Condition F.

a. The owner or operator shall calculate and record the total amount, in tons, of Single HAP emitted by the "*all emission limit cap sources*" on a rolling 365-day basis.
b. Calculation and recordkeeping of Single HAP emissions from data collected on Saturdays and Sundays shall be conducted on Mondays.
c. Calculation and recordkeeping of Single HAP emissions shall not be required when emissions do not occur.
d. Daily Single HAP emissions calculations as specified in this permit condition shall continue until the rolling 12-month total drops below 6.20 tons on the last day of the following month, at which time rolling daily Single HAP emissions calculations shall cease.

Total HAP Emissions Calculations Requirements

J. The owner or operator shall calculate Total HAP (THAP) emissions, in tons, from the operation of the processes and equipment listed in Permit Condition C using the following equation:

(1) $THAP_{Total} = \sum[(T\_ER * HR) * (1 \text{ ton}/2000 \text{ pounds})]$

Where:

$THAP_{Total}$ = Total tons of Total HAP emissions emitted by the "*all emission limit cap sources*" during the emissions calculation period.

T_ER = Average Total HAP emission rate from the most recent performance test on each of the "*all emission limit cap sources*" that demonstrated compliance with the combine emission limits for Single HAP and Total HAP.

HR = Total hours of operation for the "*all emission limit cap sources*" during the emissions calculation period.

K. The owner or operator shall record the total monthly amount, in tons, of Total HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total monthly Total HAP emissions using the equation in Permit Condition J.

L. The owner or operator shall calculate and record the total amount, in tons, of Total HAP emitted by the "*all emission limit cap source*" on a rolling 12-month basis.

M. The owner or operator shall implement the following procedure if the 12-month rolling total amount of Total HAP emitted by the "*all emission limit cap sources*" exceeds 14.10 tons.

(1) The owner or operator shall record the total daily amount, in tons, of Total HAP emitted by the "*all emission limit cap sources*." The owner or operator shall calculate total daily Total HAP emissions using the equation in Permit Condition J.

a. The owner or operator shall calculate and record the total amount, in tons, of Total HAP emitted by the "*all emission limit cap sources*" on a rolling 365-day basis.

b. Calculation and recordkeeping of Total HAP emissions from data collected on Saturdays and Sundays shall be conducted on Mondays.
c. Calculation and recordkeeping of Total HAP emissions shall not be required when emissions do not occur.

Daily Total HAP emissions calculations as specified in this permit condition shall continue until the rolling 12-month total drops below 14.10 tons on the last day of the following month, at which time rolling daily Total HAP emissions calculations shall cease.

Authority for Requirement: DNR Construction Permits 03-A-625-S9, 16-A-491-S4

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height,(ft, fromthe ground)	Stack Opening, (inches, dia)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S41	64.9	36	8,200	110	Vertical Unobstructed	03-A-625-S9
S42	85.5	40	26,500	110	Vertical Unobstructed	16-A-491-S4

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

Compliance Demonstration(s) and Performance Testing

Pollutant	Methodology	Frequency	Test Run Time	Test Methodology
VOC	Stack Testing	Once every 3 calendar years[(1)]	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
HAP	Stack Testing	Once every three calendar years[(1)(2)]	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

[(1)]VOC and HAP periodic testing on EP-S41 and EP-S42 to demonstrate compliance with the applicable emission limits, shall be conducted once every three calendar years. The next VOC and HAP recurring stack test on EP-S41 and EP-S42 shall be conducted during Year 2024

[(2)]Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. All compounds that test below detection limit shall be assumed to be emitting at a rate equal to the Method 320 or 18 detection limits.

Authority for Requirement: DNR Construction Permits 03-A-625-S9, 16-A-491-S4

Stack Testing: S41 and S42, each

Pollutant - PM
Stack Test to be Completed by (date) – 1/30/2027
Test Method - 40 CFR 60, Appendix A, Method 5
40 CFR 51 Appendix M, Method 202
Authority for Requirement – 567 IAC 24.108(3)

Pollutant – $PM_{10}/PM_{2.5}$
Stack Test to be Completed by (date) – 1/30/2027
Test Method - 40 CFR 51 Appendix M, Method 201A with 202
Authority for Requirement – 567 IAC 24.108(3)

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

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

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

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☒ **No** ☐
Required for CE41 & CE42
CAM plans are located in Appendix D.

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S70, S110, and S120 - Utility Boilers #1, #2, and #3

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
S70	EU70	Utility Boiler #1	Natural Gas	92.4 MMBtu/hr	04-A-192-S6
S110	EU-110	Utility Boiler #2		92.1 MMBtu/hr	16-A-483-S2
S120	EU-120	Utility Boiler #3		92.4 MMbtu/hr	22-A-090-S1

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.70 lb/hr, 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"(3)
DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Pollutant: $PM_{2.5}$
Emission Limit(s): 0.40 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.10 lb/hr, 500 ppm_v
Authority for Requirement: 567 IAC 23.3(3)"e"
DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 7.50 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.58 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Pollutant: Carbon Monoxide
Emission Limit(s): 7.50 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Pollutant: Total HAP
Emission Limit(s): 0.22 lb/hr
Authority for Requirement: DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1

Operational Limits & Reporting/Record keeping Requirements

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

General Requirements

A. The owner or operator shall use natural gas as the only fuel for Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120).
   (1) The owner or operator shall maintain a record of the type of fuel burned in the Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120).
   (2) Prior to burning any other fuel in these units, the owner or operator shall apply for and obtain an amended construction permit from the Department.

B. The owner or operator shall not operate the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)] and the utility boilers [Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120)] simultaneously during normal operation, which does not include periods of equipment maintenance, equipment malfunction, boiler readiness testing, or commissioning of the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)].
   (1) The owner or operator shall develop and implement standard operating procedures to ensure the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)] and the utility boilers [Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120)] *do not operate* simultaneously during normal operation, which does not include periods of equipment maintenance, equipment malfunction, boiler readiness testing, or commissioning of the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)].
      a. At a minimum, the standard operating procedures shall include the following:

i. Description of what constitutes normal operation for the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)] and the utility boilers [Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120)].

ii. Procedures to ensure the CHP System and utility boilers do not operate simultaneously during normal operation, including, but not limited to, maintaining records showing the date, operating start time, and operating end time for each unit, i.e., CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)], Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120).

iii. Description of what constitutes equipment maintenance, equipment malfunction, boiler readiness testing, and commissioning of the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)].

iv. During each readiness test event for each utility boiler:

1. Procedures to document the maximum firing rate as a percentage of its nameplate firing rate.
2. Procedures to document the number of hours per week that each boiler readiness test lasted.

b. The owner or operator shall keep onsite and available for inspection the standard operating procedures and all documentation demonstrating compliance with the recordkeeping requirements in Permit Condition B.(1)a.

New Source Performance Standards Requirements

C. Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120) are subject to 40 CFR Part 60, Subpart Dc [§60.40c - §60.48c]; therefore, the owner or operator shall comply with the applicable standards, including those not specifically mentioned in this permit.

D. Per 40 CFR §60.48c(g)(1), the owner or operator shall record and maintain records of the amount of fuel combusted in Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120) during each operating day for each unit. As an alternative to this requirement, the owner or operator may elect to:

(1) Record and maintain records of the amount of fuel combusted during each calendar month [40 CFR §60.48c(g)(2)]; or

(2) Record and maintain records of the total amount of the steam generating unit fuel delivered to the property during each calendar month [40 CFR §60.48c(g)(3)].

Authority for Requirement: DNR Construction Permit 04-A-192-S6, 16-A-483-S2, 22-A-090-S1
40 CFR 60 Subpart Dc
567 IAC 23.1(2)"lll"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
EP-S70	47.8	36	14,100	325	Vertical Unobstructed	04-A-192-S6
EP-S110	47.8	36	14,100	325	Vertical Unobstructed	16-A-483-S2
EP-S120	47.8	36	21,150	325	Vertical Unobstructed	22-A-090-S1

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S90 Fire Pump Engine

Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	DNR Construction Permit
EU90	Fire Pump Engine	Diesel	575 bhp; 25 gallons diesel fuel/hour	04-A-1100-S3

Applicable Requirements

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

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

Pollutant	Lb/hr	Other Limits	Reference
Opacity	NA	40%[(1)]	567 IAC 23.3(2)"d", DNR Construction Permit 04-A-1100-S3
Particulate Matter (PM)	1.60	0.1 gr/dscf	DNR Construction Permit 04-A-1100-S3
PM_{10}	1.60	NA	DNR Construction Permit 04-A-1100-S3
Sulfur Dioxide (SO_2)	1.78	2.5 lb/MMBtu	567 IAC 23.3(3)"b"(2), DNR Construction Permit 04-A-1100-S3
Nitrogen Oxides (NO_x)	19.60	NA	DNR Construction Permit 04-A-1100-S3
Volatile Organic Compounds	1.56	NA	DNR Construction Permit 04-A-1100-S3
Carbon Monoxide	4.20	NA	DNR Construction Permit 04-A-1100-S3

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

Operational Limits & Reporting/Record keeping Requirements

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

A. This emission unit shall only combust diesel fuel. The sulfur content of the fuel shall not exceed 0.5% by weight. The owner or operator shall retain records of the type of fuel used in this emission unit and certify the sulfur content of the fuel.
B. The owner or operator shall install a non-resettable hour meter.
C. The owner or operator shall change the oil and filter on this emission unit every 500 hours of operation or within 1 year + 30 days, whichever comes first.
D. The owner or operator shall inspect the air cleaner every 1,000 hours of operation or within 1 year +30 days, whichever comes first. The owner or operator shall replace the air cleaner as necessary.

E. The owner or operator shall inspect all hoses and belts on this emission unit every 500 hours of operation or within 1 year + 30 days, whichever comes first. The owner or operator shall replace hoses and belts as necessary.
F. This emission unit shall not operate more than 500 hours per rolling 12-month period.
G. This engine is limited to operate as an emergency stationary RICE as defined in 40 CFR §63.6675 and in accordance with 40 CFR §63.6640(f). There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition 5.F. is not exceeded. In accordance with 40 CFR §63.6640(f), the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.
H. The engine is allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used to generate income for the facility to supply power to the electric grid or otherwise supply nonemergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.
I. The owner or operator shall minimize the amount of time that the emission unit is idle during startup and minimize the amount of startup time necessary for appropriate and safe loading of the engine, not to exceed thirty (30) minutes.
J. The owner or operator shall maintain the following monthly records:
    a. The number of hours that the engine operated for maintenance checks and readiness testing;
    b. The number of hours that the engine operated for allowed non-emergency operations;
    c. The total number of hours that the engine operated; and,
    d. The rolling 12-month total amount of the number of hours that the engine operated.
K. The owner or operator shall maintain the following annual records:
    a. The number of hours that the engine operated for maintenance checks and readiness testing; and,
    b. The number of hours that the engine operated for allowed non-emergency operations.

Authority for Requirement: DNR Construction Permit 04-A-1100-S3
40 CFR 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S90	18	6	602	895	Vertical Unobstructed	04-A-1100-S3

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS001 Grain Receiving Fugitives

Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
FS001	Grain Receiving Fugitives	Grain	NA	NA

Applicable Requirements

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

Pollutant: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S80 DDGS Storage Building #1 Fugitives

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
FS002	DDGS Loadout	CE02; DDGS Handling Filter- Dried DDGS Handling Only	Dried Distillers Grains (DDGS)	12.5 tons DDGS/hr	04-A-191-S3
FS006	Wetcake Production and Storage	None		38.0 tons wetcake/hr	

Applicable Requirements

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

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

Pollutant	Lb/hr	Other Limits	Reference
Opacity	NA	40%(1)	567 IAC 23.3(2)"d", DNR Construction Permit 04-A-191-S3
Particulate Matter (PM)	0.50	0.1 gr/dscf	567 IAC 23.4(7), DNR Construction Permit 04-A-191-S3
PM_{10}	0.50	NA	DNR Construction Permit 04-A-191-S3

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

Operational Limits & Reporting/Record keeping Requirements

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

A. PLCP, LLLP. (Plant No. 42-08-001) is limited to a maximum facility production of 289,000 tons of Distillers Grains (DDGS ~10% Moisture Content, Modified ~50% Moisture Content and Wetcake) based on dry basis per twelve month rolling period.
   (1) On a Monthly basis, the owner or operator shall keep records of the amount of Distillers Grains (DDGS ~10% Moisture Content, Modified ~50% Moisture Content and Wetcake) produced at PLCP, LLLP in tons. Calculate and record rolling 12-month totals.

B. PLCP, LLLP. (Plant No. 42-08-001) is limited to annual wet cake production of 33,690 tons per calendar year (wet basis) to avoid initial compliance testing for VOC and HAP emissions. Upon such time in which PLCP, LLLP exceeds annual wet cake production of 33,690 tons per calendar year (wet basis), PLCP, LLLP is required to conduct initial compliance testing on VOC and HAP emissions from Wet Cake Production/storage. Once initial compliance threshold is exceeded, PLCP, LLLP is required to notify the

Department within 30 days and request guidance on how initial compliance testing for VOC and HAPs shall be conducted on Wet Cake production/storage.

(1) Record on annual calendar basis, the amount of Wet Cake produced at PLCP, LLLP (Plant No. 42-08-001) in tons on a wet basis.

C. The owner or operator shall operate and maintain the control equipment (CE-C02) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the control equipment (CE-C02). This log shall include, but is not limited to:

(1) The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
(2) Any issue(s) identified during the inspection and the date each issue(s) was resolved;
(3) Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
(4) Identification of the staff member performing the inspection or maintenance activity.

Authority for Requirement: DNR Construction Permit 04-A-191-S3

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
S80[(1)]	20	14.4 X 14.4	5,916	Ambient	Vertical Unobstructed	04-A-191-S3

[(1)]Emission Point S80 vents inside the DDGS Storage Building.

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS003 Fugitive Dust Emissions from Truck Traffic

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	DNR Construction Permit
FS003A	Truck Traffic: Paved Roads	Road Sweeping (CE-FS003A)	06-A-832-S3
FS003B	Truck Traffic: Unpaved Roads	Dust Suppression Application (CE-FS003B)	

Applicable Requirements

Emission Limits Truck Traffic Associated with the Onsite Production of Ethanol Product (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

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

Truck Traffic: Paved Roads

Pollutant: Opacity
Emission Limit(s): The owner or operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dust beyond the lot line of the property.
Authority for Requirement: 567 IAC 23.3(2)"c"
DNR Construction Permit 06-A-832-S3

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 12.0 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-832-S3

Truck Traffic: Unpaved Roads

Pollutant: Opacity
Emission Limit(s): The owner or operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dust beyond the lot line of the property.
Authority for Requirement: 567 IAC 23.3(2)"c"
DNR Construction Permit 06-A-832-S3

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 2.0 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-832-S3

Emission Limits Truck Traffic associated with Ethanol Transloading (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

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

Truck Traffic: Paved Roads

Pollutant: Opacity

Emission Limit(s): The owner or operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dust beyond the lot line of the property.

Authority for Requirement: 567 IAC 23.3(2)"c"
DNR Construction Permit 06-A-832-S3

Pollutant: Particulate Matter (PM) - State

Emission Limit(s): 0.39 tons/yr

Authority for Requirement: DNR Construction Permit 06-A-832-S3

Truck Traffic: Unpaved Roads

Pollutant: Opacity

Emission Limit(s): The owner or operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dust beyond the lot line of the property.

Authority for Requirement: 567 IAC 23.3(2)"c"
DNR Construction Permit 06-A-832-S3

Pollutant: Particulate Matter (PM) - State

Emission Limit(s): 0.11 tons/yr

Authority for Requirement: DNR Construction Permit 06-A-832-S3

Operational Limits & Reporting/Record keeping Requirements

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

GENERAL REQUIREMENTS

A. All haul roads shall be either paved or dust suppressant shall be applied to the portion of the haul roads that remains unpaved. Current unpaved haul road segments are located at ethanol product loadout and DDGS handling areas. If the owner or operator paves the remaining unpaved haul road segments, then dust suppressant no longer needs to be applied to these haul roads segments.
B. The owner or operator shall implement “good housekeeping” or Best Management Practices (BMP) to minimize fugitive emissions from all haul roads when in use. Such practices include, but are not limited to:
    a. Any spills that occur on roadways traveled by delivery and shipping trucks shall be cleaned as soon as practicable.
    b. Truck traffic on haul roads shall not exceed 10 miles per hour.
        i. The owner or operator shall post the speed limit on all haul roads.

c. To prevent track out of material on the traveled road surface, the owner or operator shall apply additional suppressant to unpaved roads when necessary or clean track out material on paved surfaces.
d. If visible emissions from the unpaved haul road segments at the ethanol product loadout or at the DDGS handling areas are observed, the owner or operator shall immediately take corrective action to mitigate visible emissions. This corrective action shall include, but is not limited to, applying water or chemical suppressant, reduce or eliminate truck traffic, etc.

C. The owner or operator shall develop a written plan to implement, at a minimum, the BMP specified in Permit Condition B. The written plan and any documentation as required by the plan shall be maintained onsite and available for inspection.

D. All road surface silt loading/content testing required in this permit shall be conducted according to the procedures outlined in AP-42, Appendix C-1: Procedures for Sampling Surface/Bulk Dust Loading and Appendix C-2: Procedures for Laboratory Analysis of Surface/Bulk Dust Loading Samples.

PAVED ROAD REQUIREMENTS

E. The maximum road surface silt loading (sL) present on paved road surfaces at Plant No. 42-08-011 shall not exceed 1.0 gram per square meter.

Paved Road Cleaning

F. The owner or operator shall control paved roads fugitive emissions by, at a minimum, sweeping once per calendar week, except as noted in Permit Condition G.
    a. The owner or operator shall perform all paved road sweeping using an enclosed sweeper type.

G. Haul roads sweeping need not occur under the following conditions:
    i. Weather:
        1. If sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35°F or road conditions due to weather could create hazardous driving conditions (i.e., completely covered with snow and/or ice), then the haul roads cleaning shall be postponed and accomplished the next scheduled sweeping day after the conditions preventing the cleaning have abated.
        2. Whenever a rain gauge located at the site indicates that *at least* 0.2 inch of precipitation (water equivalent) has occurred within the preceding 24-hour period. It may be assumed that the surfaces have been sufficiently cleaned and that day shall be counted as a cleaning day.
        3. If the haul roads are not cleaned due to weather, a written record must be kept on-site outlining the conditions that impeded haul roads cleaning.
    ii. Whenever the paved haul roads will not be used or if the plant will not receive any paved road truck traffic that day.

Road Surface Silt Loading Testing – Prior to Starting Ethanol Transloading

H. The owner or operator shall perform road surface silt loading (sL) testing twice per calendar year, between the months of July and September and between the months of October and December.

i. Surface silt loading testing shall be completed prior to paved haul road sweeping for that day.

ii. For each surface silt loading testing, the owner or operator shall sample silt loading for at least 3 different paved haul road locations. The three sampled locations shall then be averaged to determine the silt loading average results.

iii. The owner or operator shall maintain records including, at a minimum, the following information:

1. The date when silt loading testing occurs;
2. The location of the sample taken;
3. The measured silt content in grams;
4. The sample area used for silt load sampling in meters; and
5. The operator's initials.

iv. The owner or operator shall maintain record of the average silt loading results in g/m^2 for each test.

v. Should any of tests required in Permit Condition H exceed 1.0 g/m^2, the owner or operator shall complete silt loading testing on a monthly basis beginning the next month after the test exceeded 1.0 g/m^2. Monthly testing shall continue until 2 consecutive tests are less than 1.0 g/m^2, after which, the twice-per-calendar-year testing shall resume.

Road Surface Silt Loading Testing – After Starting Ethanol Transloading

I. After starting ethanol transloading, the owner or operator shall perform quarterly road surface silt loading (sL) testing following the procedures in Permit Conditions H.i through H.v.

J. The owner or operator may restart the twice-per-calendar-year silt loading testing as indicated in Permit Condition H, provided 3 consecutive road surface silt loading test results are no more than 50% of the silt loading limit in Permit Condition E.

K. The owner or operator shall record the start date of ethanol transloading, quarterly silt loading results, and the date quarterly silt sampling is discontinued, if applicable.

UNPAVED ROAD REQUIREMENTS

Unpaved Road Dust Suppressant Application

L. The owner or operator shall apply chemical dust suppressants at the rate and frequency required by the manufacturer's specifications to achieve a minimum fugitive dust control of 75 percent, but no less frequent than once per month.

i. The owner or operator shall keep on-site a copy of the manufacturer's specifications for achieving the minimum fugitive dust control of 75 percent.

ii. The owner or operator shall keep records of dust suppressant application, including the date, location of suppressant application, and amount.

iii. The owner or operator shall document all deviations from scheduled chemical suppressant applications, including the date, scheduled location of suppressant application, and reasons for not applying suppressant.

M. If the selected chemical dust suppressant cannot be applied because the ambient air temperature (as measured at the facility during daylight operating hours) is less than 35.0ºF or conditions due to weather, in combination with the application of the chemical dust suppressant, could create hazardous driving conditions, then the chemical dust

suppressant application shall be postponed and applied the next scheduled application day after the conditions preventing dust suppressant application have abated.

N. Dust suppressant need no occur whenever the unpaved haul roads will not be used or if the plant will not receive any unpaved truck traffic that day.

Authority for Requirement: DNR Construction Permit 06-A-832-S3

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS004 Cooling Towers, 4 Cells

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
FS004	FS004	Cooling Tower – 1 Cell	Mist Eliminator (Drift loss = 0.005%)	Water	9,000 gallons/minute	06-A-829-S3
FS004 (A-C)	FS004 (A-C)	Cooling Tower – 3 Cells	Mist Eliminator (Drift loss 0.005%)	Water	9,000 gallons/minute	20-A-104-S1

Applicable Requirements

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

Emission Point FS004
Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 06-A-829-S3

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.40 tons/yr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 06-A-829-S3

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.32 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-829-S3

Emission Point FS004(A-C)
Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: 567 IAAC 23.3(2)"d"
DNR Construction Permit 20-A-104-S1

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.54 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 20-A-104-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.32 tons/yr
Authority for Requirement: DNR Construction Permit 20-A-104-S1

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

A. The Total Dissolved Solids (TDS) concentration in the cooling water shall not exceed 2,400 parts per million by weight (2,400 mg/L) for any single sampling event.
    a. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration in the cooling water at least once per calendar month while Cooling Tower FS004 and Cooling Tower FS004(A-C) is in operation.
    b. The owner or operator shall maintain record of all TDS samples taken in parts per million by weight (2,400 mg/L).
B. The owner or operator is limited to the application of 1,560 gallons of biocide to the cooling water associated with Cooling Tower FS004 and Cooling Tower FS004(A-C) per rolling 12-month period.
    a. Record on a monthly basis, in gallons, the amount of biocide applied to cooling water associated with Cooling Tower FS004 and Cooling Tower FS004(A-C). Calculate and record rolling 12-month totals.
C. The VOC content of biocide applied to cooling water associated with Cooling Tower FS004 and Cooling Tower FS004(A-C) shall not exceed 5.0 percent by weight. The biocide applied to cooling water used in Cooling Tower FS004 and Cooling Tower FS004(A-C) shall contain no HAP.
    a. The owner or operator shall maintain record of the VOC content of biocide applied to cooling water associated with Cooling Tower FS004 and Cooling Tower FS004(A-C) as percent by weight.
    b. The owner or operator shall maintain Safety Data Sheets (SDS) for all biocides applied in Cooling Tower FS004 and Cooling Tower FS004(A-C) that contain VOC and HAP information.

D. The owner or operator shall operate and maintain the Mist Eliminator (CEFS004 and CEFS004(A-C)), Cooling Tower FS004 and Cooling Tower FS004(A-C) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Mist Eliminator (CEFS004 and CEFS004(A-C)), Cooling Tower FS004 and Cooling Tower FS004(A-C) This log shall include, but is not limited to:
    a. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
    b. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
    c. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
    d. Identification of the staff member performing the inspection or maintenance activity.

Authority for Requirement: DNR Construction Permits 06-A-829-S3, 20-A-104-S1

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
FS004	34	96	159,000	85	Vertical Unobstructed	06-A-829-S3
FS004 (A-C)	35	288	335,000 each cell	85	Vertical Unobstructed	20-A-104-S1

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS004 (E-G) Cooling Towers, 3 Cells

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
FS004 (E-G)	FS004 (E-G)	Cooling Tower #2, 3 Cells	CEFS004(E-G); Mist Eliminator	Water	22,000 gallons/minute	16-A-484

Applicable Requirements

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

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

Emission Point	Opacity	$PM_{2.5}$	PM_{10}	Particulate Matter	Authority for Requirement
FS004 (E-G)	40%[(1)]	1.35 lb/hr	1.35 lb/hr	1.35 lb/hr, 0.1 gr/dscf	16-A-484, 567 IAC 23.3(2)"a", 567 IAC 23.3(2)"d"

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

Operational Limits & Reporting/Record keeping Requirements

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

A. The owner or operator shall not exceed a concentration 2,400 parts per million by weight (2,400 mg/L) of Total Dissolved Solids (TDS) in the cooling water for any single sampling event.
B. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration, in units of milligrams per liter, in the cooling water at least once for each calendar month Cooling Tower #2 [FS004(E-G)] is in operation.
C. The owner or operator shall limit biocide application to 1,560 gallons to Cooling Tower #2 [FS004(E-G)] per rolling 12-month period.
D. The owner or operator shall record on a monthly basis, in units of gallons, the amount of biocide applied to cooling water associated with Cooling Tower #2 [FS004(E-G)]. Calculate and record rolling 12-month totals.
E. The owner or operator shall not exceed a VOC content of 5.0 percent by weight in the biocide applied to cooling water associated with Cooling Tower #2 [FS004(E-G)].
F. The owner or operator shall maintain a record of the VOC content in the biocide that is applied to Cooling Tower #2 [FS004(E-G)] cooling water, as percent by weight.
G. The owner or operator shall not apply HAP containing biocide to cooling water associated with Cooling Tower #2 [FS004(E-G)].

H. The owner or operator shall maintain a record of the HAP content in the biocide that is applied to Cooling Tower #2 [FS004(E-G)] cooling water, as percent by weight.
I. The owner or operator shall maintain Cooling Tower #2 [FS004(E-G)] according to manufacturer specifications and maintenance schedule.
J. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower #2 [FS004(E-G)].

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
FS004 (E-G)	35	288 diameter each Cell	1,005,000 (335,000 per cell)	85	Vertical Unobstructed	16-A-484

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS005 Fugitive Equipment leaks (plant wide)

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
FS005 (plant wide)	FS005	Fugitive Emissions from Equipment leaks	Leak Detection and Repair (LDAR)	NA	NA	06-A-831-S4

Applicable Requirements

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

Pollutant: Volatile Organic Compounds
Emission Limit(s): 4.16 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-831-S4

Pollutant: Single HAP
Emission Limit(s): 0.26 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-831-S4

Pollutant: Total HAP
Emission Limit(s): 0.35 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-831-S4

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

A. The owner or operator shall comply with the applicable standards in 40 CFR Part 60, Subpart VVa [§60.480a – 60.489a], including those not specifically mentioned in this permit.
B. The owner or operator shall comply with the applicable recordkeeping and reporting requirements in §60.486a and §60.487a, respectively.
C. The owner or operator shall document the component count that includes the number and types of components at PLCP, L.P. (Plant No. 42-08-001). Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The component count shall be updated as the component count varies.
D. The owner or operator shall calculate and record the VOC and HAP emissions in Tons based on the documented component count as specified in Condition C. The owner or operator shall update annualized VOC and HAP emission calculations as the component

count varies. Emission factors shall be based on EPA document 453/R-95-017 entitled "*Protocol for Equipment Leak Emission Estimates*."

Authority for Requirement: DNR Construction Permit 06-A-831-S4
40 CFR 60 Subpart VVa
567 IAC 23.1(2)"nn"

Recordkeeping Requirements

Compliance Demonstration(s) and Performance Testing

Pollutant	Methodology	Frequency
VOC	Equipment Leak Emissions Estimate	Monthly & as specified in NSPS VVa Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)
HAP[(1)]	Equipment Leak Emissions Estimate	Monthly & as specified in NSPS VVa Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)

[(1)]Equipment leak emission estimates shall be conducted for Single HAP and Total HAP. Single HAP shall include acetaldehyde, acrolein, formaldehyde, hexane, and methanol.

Authority for Requirement: DNR Construction Permit 06-A-831-S4

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS007

Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
FS007	Fugitive emission from DDGS Storage Building #2	Dried Distillers Grains	NA	NA

Applicable Requirements

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

Pollutant: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: TK001, TK003-TK006: 200 Proof Tanks

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Rated Capacity[(1)]	DNR Construction Permit
TK001	TK001	Ethanol Storage Tank #1	Internal Floating Roof (CE-TK001)	77,000 gallons	03-A-629-S6
TK003	TK003	Ethanol Storage Tank #2	Internal Floating Roof (CE-TK003)	540,000 gallons	03-A-631-S5
TK004	TK004	Ethanol Storage Tank #3	Internal Floating Roof (CE-TK004)	77,000 gallons	03-A-632-S5
TK005	TK005	Ethanol Storage Tank #4	Internal Floating Roof (CE-TK005)	540,000 gallons	16-A-485-S1
TK006	TK006	Ethanol Storage Tank #5	Internal Floating Roof (CE-TK006)	77,000 gallons	16-A-492-S1

[(1)]Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006 may store 200 Proof Ethanol, transloaded Denatured Ethanol, and transloaded Undenatured Ethanol.

Applicable Requirements

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

There are no applicable emission limits at this time.

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

A. The owner or operator shall operate and maintain the control equipment associated with Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006 according to manufacturer's specification with inspections occurring at a minimum of once per calendar year.
B. The owner or operator shall use Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006 to store 200 Proof Ethanol, transloaded Denatured Ethanol, and transloaded Undenatured Ethanol.
    a. The owner or operator shall retain onsite Safety Data Sheets for the materials stored Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006.
    b. The owner or operator shall record the source (origins) of the materials stored in Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006.

C. The total amount of transloaded denatured/undenatured ethanol stored in Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006 shall not exceed 16 million gallons per rolling 12-month period.
    a. The owner or operator shall record the total gallons of transloaded denatured/undenatured ethanol stored in Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006 on a monthly basis.
    b. The owner or operator shall calculate and record the total gallons of transloaded denatured and undenatured ethanol stored in Ethanol Storage Tanks TK001, TK003, TK004, TK005, and TK006 on a rolling 12-month basis.

D. The owner or operator shall comply with the applicable standards in 40 CFR Part 60, Subparts A and Kb, including those not specifically mentioned in this permit.
    a. The owner or operator shall use the fixed roof in combination with an internal roof to meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).
    b. The owner or operator shall comply with the applicable inspection procedures in 40 CFR §60.113b(a) of Subpart Kb.
    c. The owner or operator shall comply with the applicable reporting and recordkeeping requirements in 40 CFR §60.115b(a) of Subpart Kb.
    d. Per 40 CFR §60.116b(b) of Subpart Kb, the owner or operator shall keep readily accessible records showing the dimension of each ethanol storage tank and an analysis showing the capacity of each storage tank.
        i. The owner or operator shall keep records and analysis for the life of each ethanol storage tank.

E. Per 40 CFR 60.116b(c) of Subpart Kb, the owner or operator shall maintain the following records:
    a. The name of the material stored in each ethanol storage tank,
    b. The period of storage; and
    c. The maximum true vapor pressure of the material stored in each ethanol storage tank during each month.
        ii. The owner or operator shall determine the maximum true vapor pressure of the material stored in each ethanol storage tank by following the applicable procedure in 40 CFR §60.116b(e).

Authority for Requirement: DNR Construction Permits 03-A-629-S6, 03-A-631-S5, 03-A-632-S5, 16-A-485-S1, and 16-A-492-S1
40 CFR 60 Subpart Kb
567 IAC 23.1(2)"ddd"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
TK001	25	8	Working and Breathing Losses	Ambient	Downward	03-A-629-S6
TK003	37	8	Working and Breathing Losses	Ambient	Downward	03-A-631-S5
TK004	25	8	Working and Breathing Losses	Ambient	Downward	03-A-632-S5
TK005	37	8	Working and Breathing Losses	Ambient	Downward	16-A-485-S1
TK006	25	8	Working and Breathing Losses	Ambient	Downward	16-A-492-S1

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: TK02 Denaturant Storage Tank

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	DNR Construction Permit
TK02	TK02	Denaturant Storage Tank	CE TK02; Internal Floating Roof	Denaturant	32,000 gallons	03-A-630-S4

Applicable Requirements

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

There are no applicable emission limits at this time.

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

A. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).
B. Record and report as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.
C. Record as specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies of all records required by §60.11b(b) for the life of the source.
D. Record as specified in 40 CFR Part 60 §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.
E. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.
F. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 03-A-630-S4
40 CFR 60 Subpart Kb
567 IAC 23.1(2)"ddd"

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Emission Point	Stack Height, (ft, from the ground)	Stack Opening, (inches, dia.)	Exhaust Flow Rate (scfm)	Exhaust Temperature (°F)	Discharge Style	Authority for Requirement
TK02	15	8	Working/ Breathing losses	Ambient	Downward	03-A-630-S4

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: S140 Combustion Turbine

Associated Equipment

EU ID	Description	Maximum Rated Capacity	Control Equipment Description and ID
EU-140	Gas Turbine	171.74 MMBtu/hour, natural gas	Low NO_x/ Low CO Burner (CE-140)
EU-141	Heat Recovery Steam Generator (HRSG) and Duct Burner	120.5 MMBtu/hour, natural gas	None

DNR Construction Permit 23-A-392

Applicable Requirements

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

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

Federal Emission Limits

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): See Footnote 1
Authority for Requirement: 567 IAC 23.1(2)"aaaa"
40 CFR 63 Subpart KKKK
DNR Construction Permit 23-A-392

(1)Per 40 CFR §63.4330(a) of Subpart KKKK, the owner or operator shall not cause to be discharged into the atmosphere from the gas turbine any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh) gross output *or* the owner or operator shall not burn in the gas turbine any fuel which contains total potential sulfur emissions in excess of 26 ng/J (0.060 lb SO_2/MMBtu) heat input.

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 25 ppm at 15 percent O_2 or 150 ng/J (1.2 lb/MWh) of useful output
Authority for Requirement: 567 IAC 23.1(2)"aaaa"
DNR Construction Permit 23-A-392

State Emission Limits

Pollutant: Opacity
Emission Limit(s): 40%(2)
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 23-A-392

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 2.40 lb/hr, 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"(3)
DNR Construction Permit 23-A-392

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.71 lb/hr, 500 ppm_v
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 21.88 lb/hr
Authority for Requirement: DNR Construction Permit 23-A-392

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 1.83 lb/hr
Authority for Requirement: DNR Construction Permit 23-A-392

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 22.04 lb/hr
Authority for Requirement: DNR Construction Permit 23-A-392

Pollutant: Total HAP
Emission Limit(s): 0.71 lb/hr
Authority for Requirement: DNR Construction Permit 23-A-392

Operational Limits & Reporting/Record keeping Requirements

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

General Requirements

A. The owner or operator shall use natural gas as the only fuel for the Gas Turbine (EU-140) and the HRSG/Duct Burner (EU-141).
    (1) The owner or operator shall maintain a record of the type of fuel burned in the Gas Turbine (EU-140) and the HRSG/Duct Burner (EU-141).
    (2) Prior to burning any other fuel in these units, the owner or operator shall apply for and obtain an amended construction permit from the Department.

B. The owner or operator shall not operate the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)] and the utility boilers [Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120)] simultaneously during normal operation, which does not include periods of equipment maintenance, equipment malfunction, boiler readiness testing, or commissioning of the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)].
    (1) The owner or operator shall develop and implement standard operating procedures to ensure the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)] and the utility boilers [Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120)] *do not operate* simultaneously during normal operation, which does not include periods of equipment maintenance, equipment malfunction, boiler readiness testing, or commissioning of the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)].

a. At a minimum, the standard operating procedures shall include the following:
    i. Description of what constitutes normal operation for the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)] and the utility boilers [Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120)].
    ii. Procedures to ensure the CHP System and utility boilers do not operate simultaneously during normal operation, including, but not limited to, maintaining records showing the date, operating start time, and operating end time for each unit, i.e., CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)], Utility Boiler #1 (EU-70), Utility Boiler #2 (EU-110), and Utility Boiler #3 (EU-120).
    iii. Description of what constitutes equipment maintenance, equipment malfunction, boiler readiness testing, and commissioning of the CHP System [Gas Turbine (EU-140) and HRSG/Duct Burner (EU-141)].
    iv. During each readiness test event for each utility boiler:
        1. Procedures to document the maximum firing rate as a percentage of its nameplate firing rate.
        2. Procedures to document the number of hours per week that each boiler readiness test lasted.

b. The owner or operator shall keep onsite and available for inspection the standard operating procedures and all documentation demonstrating compliance with the recordkeeping requirements in Condition B.(1)a.

New Source Performance Standards Requirements

C. The Gas Turbine (EU-140) is subject to 40 CFR Part 60, Subpart KKKK [§60.4300 - §60.4420]; therefore, the owner or operator shall comply with the applicable standards, including those not specifically mentioned in this permit.

D. Per §60.4330 of Subpart KKKK, the owner or operator shall not burn in the Gas Turbine (EU-140) any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.
    (1) Per §60.4360, the owner or operator shall monitor the total sulfur content of the fuel being fired in the Gas Turbine (EU-140). The sulfur content of the fuel shall be determined using total sulfur methods as described in §60.4415.

E. Per §60.4330 of Subpart KKKK, the owner or operator may elect not to monitor the total sulfur content of the fuel combusted in the Gas Turbine (EU-140), if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for units located in continental areas.
    (1) The owner or operator shall use one of the following sources of information to make the required demonstration:
        a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas use is 20 grains of sulfur or less per 100

standard cubic feet, has potential sulfur emissions of less than less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.

b. The owner or operator shall retain representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D of 40 CFR Part 75 is required.

F. The owner or operator shall comply with the reporting requirements in 40 CFR §60.4375 of Subpart KKKK.

Authority for Requirement: 567 IAC 23.1(2)"aaaa"
40 CFR 60 Subpart KKKK
DNR Construction Permit 23-A-392

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50
Stack Opening, (inches, dia.): 78
Exhaust Flow Rate (scfm): 92,924
Exhaust Temperature (°F): 287
Discharge Style: Vertical, unobstructed
Authority for Requirement: DNR Construction Permit 23-A-392

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment 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	Compliance Methodology	Frequency	Test Method
NO_x	Stack Testing[(1)(2)]	Annual[(3)]	40 CFR 60, Appendix A, Method 7E

[(1)]As an alternative to testing, the facility may install, calibrate, maintain, and operate either a Continuous Emission Monitoring System as described in §§60.4335(b) and 60.4345 of Subpart KKKK or a Continuous Parameter Monitoring System.

[(2)]To demonstrate compliance with the NO_x and CO emission limits testing shall be conducted while the Gas Turbine (EU-140) and the HRSG/Duct Burner (EU-141) are operating simultaneously.

[(3)]Per §60.4400(a) of Subpart KKKK, subsequent performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, the owner or operator may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, the owner or operator shall resume annual performance tests (see §60.4340(a) of Subpart KKKK).

Authority for Requirement: 567 IAC 23.1(2)"aaaa"
40 CFR 60 Subpart KKKK
DNR Construction Permit 23-A-392

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 24.108(3)

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code (IAC). When 567 IAC as amended May 15, 2024, and cited in this permit becomes State Implementation Plan (SIP) approved, it will supersede 567 IAC as amended February 8, 2023. Prior to May 15, 2024, all Title V rule citations in this Title V permit were found and cited in 567 IAC Chapter 22. During the period from May 15, 2024, to the date that 567 IAC as amended May 15, 2024, is approved into the SIP, both 567 IAC as amended May 15, 2024, and 567 IAC as amended February 8, 2023 form the legal basis for the applicable requirements included in this permit. A crosswalk showing the citation changes is attached to this permit in **Appendix C: Executive Order 10 (EO10) Rules Crosswalk** .

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 24.108(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 24.105(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 24.108(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 24.108(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 24.108(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 24.108(15)"c"*

G2. Permit Expiration

1. Except as provided in rule 567—24.104(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—24.105(455B). *567 IAC 24.116(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. 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 24.105(2). *567 IAC 24.105*

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 24.107(4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 24.108(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 24.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 24.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 24.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.

8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 24.115(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 24.108 (15)"b"*

G8. Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 24.108 (9)"e"*

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 21.8(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
    a. The date, place and time of sampling or measurements
    b. The date the analyses were performed.
    c. The company or entity that performed the analyses.
    d. The analytical techniques or methods used.
    e. The results of such analyses; and
    f. The operating conditions as existing at the time of sampling or measurement.
    g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance

records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.

b. Maintain a log at the permitted facility of the scenario under which it is operating.

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 24.108(4), 567 IAC 24.108(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 24;

b. Compliance test methods specified in 567 Chapter 21; or

c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or

b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 24.108(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 21.10(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 21.10(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.
iv. The cause of the excess emission.
v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
vi. The steps that were taken to limit the excess emission.
vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 21.7(1)-567 IAC 21.7(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
b. The facility at the time was being properly operated;
c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 24.108(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 24.108(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 24.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR

Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 24.

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—24.140(455B) through 567 - 24.144(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 24.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 24.110(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 24.110(1). *567 IAC 24.110(3)*

4. The permit shield provided in subrule 24.108(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 24.110(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 24.108(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 - 24.113(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 24.107(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 24.107(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 24.112(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 24, 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 24.111-567 IAC 24.113*

G19. Duty to Obtain Construction Permits

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (*567 IAC 23.1(3)"a");* training fires and controlled burning of a demolished building *(567 IAC 23.2).*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 <u>except</u> 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 24.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

    a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

    b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

    c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

    d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

    c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

    d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

    e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

    f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle

has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 24.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 24.108(17)"a", 567 IAC 24.108(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 24.114(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 24.114(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 24.114(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 24.108 (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 24.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 24.108 (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 24.111(1). *567 IAC 24.111 (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 24.3(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 (42 days) 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
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 343-6589

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.
567 IAC 21.10(7)"a", 567 IAC 21.10(9)

G31. Prevention of Air Pollution Emergency Episodes
The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.
567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Iowa Compliance Officer
Air Branch
Enforcement and Compliance Assurance Division
U.S. EPA Region 7
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 313-8325

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
1101 Commercial Court, Suite 10
Manchester, IA 52057
(563) 927-2640

Field Office 2
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 725-0268

Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Polk County Public Works Dept.
Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health
Air Quality Branch
1020 6th Street SE
Cedar Rapids, IA 52401
(319) 892-6000

V. Appendix A

40 CFR 60 Subpart A – General Provisions
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-A

40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Kb

40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-Dc

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-IIII

40 CFR 60 Subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-VVa

40 CFR 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-KKKK

40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ

VI. Appendix B

Agency Operations and Maintenance Plan

Control Equipment	Control Equipment	Pressure Drop Range (In. W.C.)
CE03	Bin Vent Filter	NA
CE04	Bin Vent Filter	NA
CE05	Dust Collection Filter	0.1 – 6.0
CE61	Dust Collection Filter	0.1 – 6.0
CE62	Dust Collection Filter	0.1 – 6.0
CE41	Pulse Jet Baghouse	0.1 – 6.0
CE42-2	Pulse Jet Baghouse	0.1 – 6.0

O & M Plan for Filters CE03, CE04

- Check for visible emissions from the filters **once per week**. If visible emissions exist, inspect filters for evidence of malfunction, including missing, loose/free or damaged filters.
- Maintain a written record of the weekly observation and any corrective action taken resulting from the inspection.
- Change the Bin Vent Filters (CE03 and CE04) **every two years**.
- Maintenance and inspection records will be kept for five years and available upon request

O & M Plan for Filters CE05, CE61, CE62

- Check for visible emissions from the filters **once per week**. If visible emissions exist, inspect filters for evidence of malfunction, including missing, loose/free or damaged filters.
- Check differential pressure **once per quarter**. Verify that it is within acceptable range. Record the results.
- Inspect the filters **every quarter** for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the quarterly observation and any corrective action taken resulting from the inspection.
- Maintenance and inspection records will be kept for five years and available upon request.

O & M Plan for Baghouses CE41, CE42-2

- Check for visible emissions from the unit **once per week**. If visible emissions exist, inspect equipment for evidence of malfunction, including missing, loose/free or damaged filters.
- Check differential pressure **once per week**. Verify that it is within acceptable range. Record the results.
- Inspect **quarterly** all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.
- Inspect **annually** all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods. Maintain a written record of the inspection and any action resulting from the inspection.
- Maintain a written record of the weekly inspections and any corrective action taken resulting from the inspection.
- Maintenance and inspection records will be kept for five years and available upon request.

O&M plan for Baghouse CE01

A. Pressure Drop	
Indicator:	Pressure drop across the baghouse is measured with a differential pressure gauge. It is monitored **each day** of operation and manually recorded **daily.**
Indicator Range:	An excursion is defined as a pressure drop greater than 6.0 or less than 0.1 inches of water column.
Performance Criteria:	
a. Data Representativeness:	Pressure taps are located at the baghouse inlet and outlet.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The control equipment is inspected and maintained according to the manufacturer's specifications and instructions. A log of all maintenance and inspection activities will be kept, with inspection activities completed at a minimum of **once per calendar year**. The pressure gauge, tubing and pressure taps are visually inspected **quarterly** and checked for plugging
d. Monitoring Frequency:	Pressure drop is monitored **once each day** of operation.
e. Data Collection Procedures:	Pressure drop is manually recorded **once each day** of operation. The observation log includes the observation date, time, and pressure drop reading.

B. Visible Emissions - CE-01 Continued	
Indicator:	Visible Emissions
Indicator Range:	Excursion is defined as any visible emissions.
Performance Criteria:	
a. Data Representativeness:	Visible emissions determination is used to determine the effectiveness of the baghouse. Recorded observations will be completed during periods of normal operation by a competent observer.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The observer will be familiar with baghouse operations.
d. Monitoring Frequency:	SV01 will be checked **once each day** of operation during daylight hours. During inclement weather, only pressure drop across CE01 will be recorded.
e. Data Collection Procedures:	Visible emissions reading recorded **once each day** of operation. The observation log includes the observation date, time, and results.

O&M plan for Baghouse - CE60

A. Pressure Drop	
Indicator:	Pressure drop across the baghouse is measured with a differential pressure gauge. It is monitored **each day** of operation and manually recorded **daily.**
Indicator Range:	An excursion is defined as a pressure drop greater than 6.0 or less than 0.1 inches of water column.
Performance Criteria:	
a. Data Representativeness:	Pressure taps are located at the baghouse inlet and outlet.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The control equipment is inspected and maintained according to the manufacturer's specifications and instructions. A log of all maintenance and inspection activities will be kept, with inspection activities completed at a minimum of **once per calendar year**. The pressure gauge, tubing and pressure taps are visually inspected **quarterly** and checked for plugging.
d. Monitoring Frequency:	Pressure drop is monitored **once each day** of operation.
e. Data Collection Procedures:	Pressure drop is manually recorded **once each day** of operation. The observation log includes the observation date, time, and pressure drop reading.

B. Visible Emissions	CE-60 Continued
Indicator:	Visible Emissions
Indicator Range:	Excursion is defined as any visible emissions.
Performance Criteria:	
a. Data Representativeness:	Visible emissions determination is used to determine the effectiveness of the baghouse. Recorded observations will be completed during periods of normal operation by a competent observer.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The observer will be familiar with baghouse operations.
d. Monitoring Frequency:	SV111 will be checked **once each day** of operation during daylight hours. During inclement weather, only pressure drop across CE60 will be recorded.
e. Data Collection Procedures:	Visible emissions reading recorded **once each day** of operation. The observation log includes the observation date, time, and results.

Baghouse for Particulate Matter (PM) Control – CE11

A. Pressure Drop	
Indicator:	Pressure drop across the baghouse is measured with a differential pressure gauge. It is monitored **each day** of operation and manually recorded **daily.**
Indicator Range:	An excursion is defined as a pressure drop greater than 6.0 or less than 0.1 inches of water column.
Performance Criteria:	
a. Data Representativeness:	Pressure taps are located at the baghouse inlet and outlet.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The control equipment is inspected and maintained according to the manufacturer's specifications and instructions. A log of all maintenance and inspection activities will be kept, with inspection activities completed at a minimum of **once per calendar year.** The pressure gauge, tubing and pressure taps are visually inspected **quarterly** and checked for plugging.
d. Monitoring Frequency:	Pressure drop is monitored **once each day** of operation.
e. Data Collection Procedures:	Pressure drop is manually recorded **once each day** of operation. The observation log includes the observation date, time, and pressure drop reading.

B. Visible Emissions	CE-11 Continued
Indicator:	Visible Emissions
Indicator Range:	Excursion is defined as any visible emissions.
Performance Criteria:	
a. Data Representativeness:	Visible emissions determination is used to determine the effectiveness of the baghouse. Recorded observations will be completed during periods of normal operation by a competent observer.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The observer will be familiar with baghouse operations.
d. Monitoring Frequency:	S11 will be checked **once each day** of operation during daylight hours. During inclement weather, only pressure drop across CE11 will be recorded.
e. Data Collection Procedures:	Visible emissions reading recorded **once each day** of operation. The observation log includes the observation date, time, and results.

VII. Appendix C: Executive Order 10 (EO10) Rules Crosswalk

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
20	**20 (Reserved)**	Scope of Title - Definitions	N/A	**Definitions moved** to Ch. 21, 22 and 23. **Rescinded** Ch. 20. (Reserved)
21	**21**	Compliance	Compliance, Excess Emissions, and Measurement of Emissions	**Kept and combined** with rules from Chapters 24, 25, 26, and 29.
22	**22**	Controlling Pollution-Permits	Controlling Air Pollution - Construction Permitting	**Kept construction permit rules and combined** with Ch. 20 (definitions) and Ch. 28 (NAAQS). **Moved operating permit rules** to Chapter 24.
22.100 - 22.300(12)	**(New) 24**	N/A	Operating Permits	**Moved operating permit rules** from Ch. 22 to Ch. 24.
23	**23**	Emission Standards	Air Emission Standards	**Kept**
24	**(New) 21**	Excess Emissions	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Moved TV rules** here (to Ch. 24)**.**
25	**(New) 21**	Emissions Measurement	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 25. (Reserved)
26	**(New) 21**	Emergency Air Pollution Episodes	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 26. (Reserved)
27	**27**	Local Program Acceptance	Local Program Acceptance	**Kept**
28	**22**	NAAQS	N/A	**Moved rules and combined** with Ch. 22. **Rescinded** Ch. 28. (Reserved)
29	**(New) 21**	Opacity Qualifications	Compliance, Excess Emissions, and Measurement of Emissions	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 29. (Reserved)
30	**30**	Fees	Fee	**Kept**
31	**31**	Nonattainment Areas	Nonattainment New Source Review	**Kept**
32	**N/A**	AFO Field Study	N/A	**Rescinded** Ch. 32. (Reserved)
33	**33**	Special regulations and construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD) of air quality	Construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD)	**Kept**
34	**N/A**	Emissions Trading-CAIR-CAMR	N/A	**Rescinded** Ch. 34. (Reserved)
35	**N/A**	Grant Assistance Programs	N/A	**Rescinded** Ch. 35. (Reserved)

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
20	**20 (Reserved)**	**Scope of Title - Definitions**	**N/A**	**Definitions moved** to Ch. 21, 22 and 23. **Rescinded** Ch. 20. (Reserved)
20.1	N/A	Scope of title	N/A	
20.2	Ch. 21, 22, 23	Definitions	Definitions	See beginning of Ch. 21, 22, and 23
20.3	N/A	Air quality forms generally	N/A	
21	**21**	**Compliance**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Kept and combined** with rules from Chapters 24, 25, 26, and 29.
21.1	21.1	Compliance Schedule	Definitions and compliance requirements	Added definitions from Ch. 21, some language updated
21.2	21.2	Variances	Variances	Some language updated
21.3	21.3	Emission reduction program	Reserved	Reserved
21.4	21.4	Circumvention of rules	Circumvention of rules	Minor language updated
21.5	21.5	Evidence used in establishing that a violation has or is occurring	Evidence used in establishing that a violation has occurred or is occurring	21.5(2) Reserved, some language updated
21.6	21.6	Temporary electricity generation for disaster situations	Temporary electricity generation for disaster situations	Minor language updated
24.1	21.7	Excess emission reporting	Excess emission reporting	Moved from Ch. 24, some language updated
24.2	21.8	Maintenance and repair requirements	Maintenance and repair requirements	Moved from Ch. 24, some language updated
N/A	21.9	N/A	Compliance with other requirements	New language
25.1	21.10	Testing and sampling of new and existing equipment	Testing and sampling of new and existing equipment	Moved from Ch. 25, some language updated
25.2	21.11	Continuous emission monitoring under the acid rain program	Continuous emission monitoring under the acid rain program	Moved from Ch. 25, some language updated
25.3	N/A	Mercury emissions testing and monitoring	N/A	Rescinded. Except 25.3(5)
25.3(5)	21.12	Affected sources subject to Section 112(g)	Affected sources subject to Section 112(g)	Moved from Ch. 25, some language updated
29.1	21.13	Methodology and qualified observer	Methodology and qualified observer	Moved from Ch. 29, some language updated
26.1	21.14	Prevention of air pollution emergency episodes - General	Prevention of air pollution emergency episodes	Moved from Ch. 26, some language updated
26.2	21.15	Episode criteria	Episode criteria	Moved from Ch. 26, some language updated
26.3	21.16	Preplanned abatement strategies	Preplanned abatement strategies	Moved from Ch. 26, some language updated
26.4	21.17	Actions taken during episodes	Actions taken during episodes	Moved from Ch. 26, some language updated
Ch 26 Table III	Table I	Abatement strategies emission reduction actions alert level	Abatement strategies emission reduction actions alert level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table IV	Table II	Abatement strategies emission reduction actions warning level	Abatement strategies emission reduction actions warning level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table V	Table III	Abatement strategies emission reduction actions emergency level	Abatement strategies emission reduction actions emergency level	Moved from Ch. 26, reference federal appendix table
22	**22**	**Controlling Pollution-Permits**	**Controlling Air Pollution - Construction Permitting**	**Kept construction permit rules and combined** with Ch. 20 (definitions) and Ch. 28 (NAAQS). **Moved operating permit rules** to Chapter 24.
22.1	22.1	Permits required for new or existing stationary sources	Definitions and permit requirements for new or existing stationary sources	Added definitions from Ch. 20, some language updated
22.2	22.2	Processing permit applications	Processing permit applications	
22.3	22.3	Issuing permits	Issuing permits	
22.4	22.4	Special requirements for major stationary sources located in areas designated attainment or unclassified (PSD)	Major stationary sources located in areas designated attainment or unclassified (PSD)	
22.5	22.5	Special requirements for nonattainment areas	Major stationary sources located in areas designated Nonattainment	
22.6	22.6	Nonattainment area designations	Reserved	

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
22.7	22.7	Alternative emission control program	Alternative emission control program	
22.8	22.8	Permit by rule	Permit by rule	
22.9	22.9	Special requirements for visibility protection	Special requirements for visibility protection	A lot of language updated or removed
22.10	22.10	Permitting requirements for country grain elevators, country grain terminal elevators, grain terminal elevators and feed mill equipment	Permitting requirements for country grain elevators, country grain terminal elevators, grain terminal elevators and feed mill equipment	
28.1	22.11	Ambient air quality standards - Statewide standards	Ambient air quality standards	Moved from Ch. 28, minor language updated
22.12 to 22.99	N/A	Reserved	N/A	Removed

22.100 - 22.300(12)	**(New) 24**	**N/A**	**Operating Permits**	**Moved operating permit rules** from Ch. 22 to Ch. 24.
22.100	24.100	Definitions for Title V operating permits	Definitions for Title V operating permits	Moved from Ch. 22, some language updated, many 40 CFR 70 definitions adopted by reference
22.101	24.101	Applicability of Title V operating permit requirements	Applicability of Title V operating permit requirements	Moved from Ch. 22, some language updated to correct punctuation and remove old dates
22.102	24.102	Source category exemptions	Source category exemptions	Moved from Ch. 22, some language updated to correct punctuation
22.103	24.103	Insignificant activities	Insignificant activities	Moved from Ch. 22, some language updated to correct typos and remove old dates
22.104	24.104	Requirement to have a Title V permit	Requirement to have a Title V permit	Moved from Ch. 22, some language updated no changes to rule text
22.105	24.105	Title V permit applications	Title V permit applications	Moved from Ch. 22, updated language to address electronic submissions and remove past application due dates
22.106	24.106	Annual Title V emissions inventory	Annual Title V emissions inventory	Moved from Ch. 22, no changes to rule text
22.107	24.107	Title V permit processing procedures	Title V permit processing procedures	Moved from Ch. 22, some language updated to update locations of public records and remove old CFR amendment dates
22.108	24.108	Permit content	Permit content	Moved from Ch. 22, some language updated to correct punctuation, remove old dates, and adopt 40 CFR 70 rules by reference
22.109	24.109	General permits	General permits	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.110	24.110	Changes allowed without a Title V permit revision (off-permit revisions)	Changes allowed without a Title V permit revision (off-permit revisions)	Moved from Ch. 22, some language updated to remove redundant language
22.111	24.111	Administrative amendments to Title V permits	Administrative amendments to Title V permits	Moved from Ch. 22, no changes to rule text
22.112	24.112	Minor Title V permit modifications	Minor Title V permit modifications	Moved from Ch. 22, no changes to rule text
22.113	24.113	Significant Title V permit modifications	Significant Title V permit modifications	Moved from Ch. 22, no changes to rule text
22.114	24.114	Title V permit reopenings	Title V permit re-openings	Moved from Ch. 22 to Ch. 24, some language updated to adopt 40 CFR 70 rules by reference
22.115	24.115	Suspension, termination, and revocation of Title V permits	Suspension, termination, and revocation of Title V permits	Moved from Ch. 22, no changes to rule text
22.116	24.116	Title V permit renewals	Title V permit renewals	Moved from Ch. 22, no changes to rule text
22.117-22.119	24.117-24.119	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.120	24.120	Acid rain program—definitions	Acid rain program—definitions	Moved from Ch. 22, some language updated to remove old CFR amendment dates and address electronic submissions
22.121	24.121	Measurements, abbreviations, and acronyms	Reserved	Moved from Ch. 22, no changes to rule text
22.122	24.122	Applicability	Applicability	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.123	24.123	Acid rain exemptions	Acid rain exemptions	Moved from Ch. 22, some language updated to correct punctuation
22.124	24.124	Retired units exemption	Reserved	Moved from Ch. 22, no changes to rule text
22.125	24.125	Standard requirements	Standard requirements	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.126	24.126	Designated representative—submissions	Designated representative—submissions	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.127	24.127	Designated representative—objections	Designated representative—objections	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.128	24.128	Acid rain applications—requirement to apply	Acid rain applications—requirement to apply	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference

22.129	24.129	Information requirements for acid rain permit applications	Information requirements for acid rain permit applications	Moved from Ch. 22, no changes to rule text

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
22.130	24.130	Acid rain permit application shield and binding effect of permit application	Acid rain permit application shield and binding effect of permit application	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.131	24.131	Acid rain compliance plan and compliance options—general	Acid rain compliance plan and compliance options—general	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.132	24.132	Repowering extensions	Reserved	Moved from Ch. 22, no changes to rule text
22.133	24.133	Acid rain permit contents—general	Acid rain permit contents—general	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.134	24.134	Acid rain permit shield	Acid rain permit shield	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.135	24.135	Acid rain permit issuance procedures—general	Acid rain permit issuance procedures—general	Moved from Ch. 22, no changes to rule text
22.136	24.136	Acid rain permit issuance procedures—completeness	Acid rain permit issuance procedures—completeness	Moved from Ch. 22, no changes to rule text
22.137	24.137	Acid rain permit issuance procedures—statement of basis	Acid rain permit issuance procedures—statement of basis	Moved from Ch. 22, no changes to rule text
22.138	24.138	Issuance of acid rain permits	Issuance of acid rain permits	Moved from Ch. 22, some language updated to remove old dates and deadlines
22.139	24.139	Acid rain permit appeal procedures	Acid rain permit appeal procedures	Moved from Ch. 22, no changes to rule text
22.140	24.140	Permit revisions—general	Permit revisions—general	Moved from Ch. 22, some language updated to remove old dates
22.141	24.141	Permit modifications	Permit modifications	Moved from Ch. 22, no changes to rule text
22.142	24.142	Fast-track modifications	Fast-track modifications	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.143	24.143	Administrative permit amendment	Administrative permit amendment	Moved from Ch. 22, some language updated to remove fax option
22.144	24.144	Automatic permit amendment	Automatic permit amendment	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.145	24.145	Permit reopenings	Permit re-openings	Moved from Ch. 22, language updated to adopt 40 CFR 70 rules by reference
22.146	24.146	Compliance certification—annual report	Compliance certification—annual report	Moved from Ch. 22, no changes to rule text
22.147	24.147	Compliance certification—units with repowering extension plans	Reserved	Moved from Ch. 22, no changes to rule text
22.148	24.148	Sulfur dioxide opt-ins	Sulfur dioxide opt-ins	Moved from Ch. 22, some language updated to update the 40 CFR Part 74 amendment date
22.149 - 22.199	24.149 - 24.299	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.200	24.200 - 24.299	Definitions for voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.201	24.200 - 24.299	Eligibility for voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.203	24.200 - 24.299	Voluntary operating permit applications	Reserved	Moved from Ch. 22, no changes to rule text
22.204	24.200 - 24.299	Voluntary operating permit fees	Reserved	Moved from Ch. 22, no changes to rule text
22.205	24.200 - 24.299	Voluntary operating permit processing procedures	Reserved	Moved from Ch. 22, no changes to rule text
22.206	24.200 - 24.299	Permit content	Reserved	Moved from Ch. 22, no changes to rule text
22.207	24.200 - 24.299	Relation to construction permits	Reserved	Moved from Ch. 22, no changes to rule text
22.208	24.200 - 24.299	Suspension, termination, and revocation of voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.209	24.200 - 24.299	Change of ownership for facilities with voluntary operating permits	Reserved	Moved from Ch. 22, no changes to rule text
22.210 - 22.299	24.200 - 24.299	Reserved	Reserved	Moved from Ch. 22, no changes to rule text
22.300	24.300	Operating permit by rule for small sources	Operating permit by rule for small sources	Moved from Ch. 22, no changes to rule text

23	23	Emission Standards	Air Emission Standards	Kept
23.1	23.1	Emission standards	Emission standards	Kept, language updated, tables used
23.2	23.2	Open burning	Open burning	Kept, some language updated
23.3	23.3	Specific contaminants	Specific contaminants	Kept, some language updated
23.4	23.4	Specific processes	Specific processes	Kept, some language updated
23.5	23.5	Anaerobic lagoons	Anaerobic lagoons	Kept, some language updated
23.6	23.6	Alternative emission limits (the “bubble concept”)	Reserved	Removed

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
24	**(New) 21**	**Excess Emissions**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Moved operating permit rules** here (to Ch. 24)**.**
24.1	21.7	Excess emission reporting	Excess emission reporting	Moved from Ch. 24, some language updated
24.2	21.8	Maintenance and repair requirements	Maintenance and repair requirements	Moved from Ch. 24, some language updated
25	**(New) 21**	**Emissions Measurement**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 25. (Reserved)
25.1	21.10	Testing and sampling of new and existing equipment	Testing and sampling of new and existing equipment	Moved from Ch. 25, some language updated
25.2	21.11	Continuous emission monitoring under the acid rain program	Continuous emission monitoring under the acid rain program	Moved from Ch. 25, some language updated
25.3		Mercury emissions testing and monitoring	N/A	Rescinded. Except 25.3(5)
25.3(5)	21.12	Affected sources subject to Section 112(g)	Affected sources subject to Section 112(g)	Moved from Ch. 25, some language updated
26	**(New) 21**	**Emergency Air Pollution Episodes**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 26. (Reserved)
26.1	21.14	Prevention of air pollution emergency episodes - General	Prevention of air pollution emergency episodes	Moved from Ch. 26, some language updated
26.2	21.15	Episode criteria	Episode criteria	Moved from Ch. 26, some language updated
26.3	21.16	Preplanned abatement strategies	Preplanned abatement strategies	Moved from Ch. 26, some language updated
26.4	21.17	Actions taken during episodes	Actions taken during episodes	Moved from Ch. 26, some language updated
Ch 26 Table III	Table I	Abatement strategies emission reduction actions alert level	Abatement strategies emission reduction actions alert level	Moved from Ch. 26, reference federal appendix table
Ch 26 Table IV	Table II	Abatement strategies emission reduction actions warning level	Abatement strategies emission reduction actions warning level	Moved from Ch. 26, reference federal appendix table
Ch 26Table V	Table III	Abatement strategies emission reduction actions emergency level	Abatement strategies emission reduction actions emergency level	Moved from Ch. 26, reference federal appendix table
27	**27**	**Local Program Acceptance**	**Local Program Acceptance**	**Kept**
27.1	27.1	General	General	Kept, some language updated
27.2	27.2	Certificate of acceptance	Certificate of acceptance	Kept, some language updated
27.3	27.3	Ordinance or regulations	Ordinance or regulations	Kept, some language updated
27.4	27.4	Administrative organization	Administrative organization	Kept, some language updated
27.5	27.5	Program activities	Program activities	Kept, some language updated
28	**22**	**NAAQS**	**N/A**	**Moved rules and combined** with Ch. 22. **Rescinded** Ch. 28. (Reserved)
28.1	22.11	Ambient air quality standards - Statewide standards	Ambient air quality standards	**Moved from Ch. 28**, minor language updated **Rescinded** Ch. 28. (Reserved)
29	**(New) 21**	**Opacity Qualifications**	**Compliance, Excess Emissions, and Measurement of Emissions**	**Moved rules and combined** with Ch. 21. **Rescinded** Ch. 29. (Reserved)
29.1	21.13	Methodology and qualified observer	Methodology and qualified observer	Moved from Ch. 29, some language updated

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
30	**30**	**Fees**	**Fee**	**Kept**
30.1	30.1	Purpose	Purpose	Kept, language updated
30.2	30.2	Fees associated with new source review applications	Fees associated with new source review applications	Kept, some language updated
30.3	30.3	Fees associated with asbestos demolition or renovation notification	Fees associated with asbestos demolition or renovation notification	Kept, some language updated
30.4	30.4	Fees associated with Title V operating permits	Fees associated with Title V operating permits	Kept, some language updated
30.5	30.5	Fee advisory groups	Fee advisory groups	Kept, language updated
30.6	30.6	Process to establish or adjust fees and notification of fee rates	Process to establish or adjust fees and notification of fee rates	Kept, some language updated
30.7	30.7	Fee revenue	Reserved	Language removed

31	**31**	**Nonattainment Areas**	**Nonattainment New Source Review**	**Kept**
31.1	31.1	Permit requirements relating to nonattainment areas	Permit requirements relating to nonattainment areas	Kept, some language updated
31.2	31.2	Conformity of general federal actions to the Iowa state implementation plan or federal implementation plan - Rescinded	Reserved	Language removed
31.3	31.3	Nonattainment new source review requirements for areas designated nonattainment on or after May 18, 1998	Nonattainment new source review (NNSR) requirements for areas designated nonattainment	Kept, some language updated
31.4	31.4	Preconstruction review permit program	Preconstruction review permit program	Kept
31.5 - 31.8	31.5 - 31.8	Reserved	Reserved	Kept
31.9	31.9	Actuals PALs	Actuals PALs	Kept, some language updated
31.10	31.10	Validity of rules	Validity of rules	Kept
31.11 - 31.19	N/A	Reserved	N/A	Rescinded and removed
31.20	N/A	Special requirements for nonattainment areas designated before May 18, 1998	N/A	Rescinded and removed

32	**N/A**	**AFO Field Study**	**N/A**	**Rescinded** Ch. 32. (Reserved)
32.1	N/A	Animal feeding operations field study	N/A	Rescinded, reserved, and language removed
32.2	N/A	Definitions	N/A	Rescinded, reserved, and language removed
32.3	N/A	Exceedance of the health effects value (HEV) for hydrogen sulfide	N/A	Rescinded, reserved, and language removed
32.4	N/A	Exceedance of the health effects standard (HES) for hydrogen sulfide	N/A	Rescinded, reserved, and language removed
32.5	N/A	Iowa Air Sampling Manual	N/A	Rescinded, reserved, and language removed

33	**33**	**Special regulations and construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD) of air quality**	**Construction permit requirements for major stationary sources—Prevention of significant deterioration (PSD)**	**Kept**
33.1	33.1	Purpose	Purpose	Kept, some language updated
33.2	33.2	Reserved	Reserved	Kept
33.3	33.3	Special construction permit requirements for major stationary sources in areas designated attainment or unclassified (PSD)	PSD construction permit requirements for major stationary sources	Kept, some language updated
33.4 - 33.8	33.4 - 33.8	Reserved	Reserved	Kept
33.9	33.9	Plantwide applicability limitations (PALs)	Plantwide applicability limitations (PALs)	Kept, some language updated
33.10	33.10	Exceptions to adoption by reference	Exceptions to adoption by reference	Kept, some language updated

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
34	**N/A**	**Emissions Trading-CAIR-CAMR**	**N/A**	**Rescinded** Ch. 34. (Reserved)
34.1	N/A	Purpose	N/A	Rescinded, reserved, and language removed
34.2 - 34.199	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.200	N/A	Provisions for air emissions trading and other requirements for the Clean Air Interstate Rule (CAIR) - rescinded	N/A	Rescinded, reserved, and language removed
34.201	N/A	CAIR NOx annual trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.202	N/A	CAIR designated representative for CAIR NOx sources - rescinded	N/A	Rescinded, reserved, and language removed
34.203	N/A	Permits - rescinded	N/A	Rescinded, reserved, and language removed
34.204	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.205	N/A	CAIR NOx allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.206	N/A	CAIR NOx allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed
34.207	N/A	CAIR NOx allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
34.208	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.209	N/A	CAIR NOx opt-in units - rescinded	N/A	Rescinded, reserved, and language removed
34.210	N/A	CAIR SO2 trading program - rescinded	N/A	Rescinded, reserved, and language removed
34.211 - 34.219	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.220	N/A	CAIR NOx ozone season trading program - rescinded	N/A	Rescinded, reserved, and language removed
34.221	N/A	CAIR NOx ozone season trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.222	N/A	CAIR designated representative for CAIR NOx ozone season sources - rescinded	N/A	Rescinded, reserved, and language removed
34.223	N/A	CAIR NOx ozone season permits - rescinded	N/A	Rescinded, reserved, and language removed
34.224	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.225	N/A	CAIR NOx ozone season allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.226	N/A	CAIR NOx ozone season allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed
34.227	N/A	CAIR NOx ozone season allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed
34.228	N/A	CAIR NOx ozone season monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.229	N/A	CAIR NOx ozone season opt-in units - rescinded	N/A	Rescinded, reserved, and language removed
34.230 - 34.299	N/A	Reserved	N/A	Rescinded, reserved, and language removed
34.300	N/A	Provisions for air emissions trading and other requirements for the Clean Air Mercury Rule (CAMR) - rescinded	N/A	Rescinded, reserved, and language removed
34.301	N/A	Mercury (Hg) budget trading program general provisions - rescinded	N/A	Rescinded, reserved, and language removed
34.302	N/A	Hg designated representative for Hg budget sources - rescinded	N/A	Rescinded, reserved, and language removed
34.303	N/A	General Hg budget trading program permit requirements - rescinded	N/A	Rescinded, reserved, and language removed
34.304	N/A	Hg allowance allocations - rescinded	N/A	Rescinded, reserved, and language removed
34.305	N/A	Hg allowance tracking system - rescinded	N/A	Rescinded, reserved, and language removed

34.306	N/A	Hg allowance transfers - rescinded	N/A	Rescinded, reserved, and language removed

Previous Chapter Number (Prior to 5/15/2024)	Current Chapter Number	Previous Title and Description (Prior to 5/15/2024)	Current Title and Description	Actions Taken
34.307	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.308	N/A	Performance specifications - rescinded	N/A	Rescinded, reserved, and language removed

35	**N/A**	**Grant Assistance Programs**	**N/A**	**Rescinded** Ch. 35. (Reserved)
35.1	N/A	Purpose	N/A	Rescinded, reserved, and language removed
35.2	N/A	Definitions	N/A	Rescinded, reserved, and language removed
35.3	N/A	Role of the department of natural resources	N/A	Rescinded, reserved, and language removed
35.4	N/A	Eligible projects	N/A	Rescinded, reserved, and language removed
35.5	N/A	Forms	N/A	Rescinded, reserved, and language removed
35.6	N/A	Project selection	N/A	Rescinded, reserved, and language removed
35.7	N/A	Funding sources	N/A	Rescinded, reserved, and language removed
35.8	N/A	Type of financial assistance	N/A	Rescinded, reserved, and language removed
35.9	N/A	Term of loans	N/A	Rescinded, reserved, and language removed
35.10	N/A	Reduced award	N/A	Rescinded, reserved, and language removed
35.11	N/A	Fund disbursement limitations	N/A	Rescinded, reserved, and language removed
35.12	N/A	Applicant cost share	N/A	Rescinded, reserved, and language removed
35.13	N/A	Eligible costs	N/A	Rescinded, reserved, and language removed
35.14	N/A	Ineligible costs	N/A	Rescinded, reserved, and language removed
35.15	N/A	Written agreement	N/A	Rescinded, reserved, and language removed
35.16	N/A	Financial assistance denial	N/A	Rescinded, reserved, and language removed

VIII Appendix D: CAM Plans

Baghouse for Particulate Matter (PM) Control – CE10

III. Background

a. Emission Unit

Description:	Hammermilling Baghouse #1
Identification:	CE10 (S10)
Facility:	Pine Lake Corn Processors 33371 170th Street Steamboat Rock, IA 50672

b. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	Permit No. 03-A-621-S5 Avoid major source under PSD.
Emission Limits:	Total PM • ≤ 0.1 gr/dscf - 567 IAC 23.4(7) • ≤ 0.48 lb/hr - 567 IAC 23.4(7) Opacity: ≤40% Opacity - 567 IAC 23.3(2)“d”
Monitoring Requirements:	CE 10 Baghouse Pressure Drop S10 Visible Emissions

c. Control Technology

Control Technology:	Baghouse (Pulse jet cleaning or equivalent technology)

IV. Monitoring Approach

A. Pressure Drop	
Indicator:	Pressure drop across the baghouse is measured with a differential pressure gauge. It is monitored each day of operation and manually recorded daily.
Indicator Range:	An excursion is defined as a pressure drop greater than 6.0 or less than 0.1 inches of water column.
Performance Criteria:	
a. Data Representativeness:	Pressure taps are located at the baghouse inlet and outlet.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The control equipment is inspected and maintained according to the manufacturer's specifications and instructions. A log of all maintenance and inspection activities will be kept, with inspection activities completed at a minimum of once per calendar year. The pressure gauge, tubing and pressure taps are visually inspected quarterly and checked for plugging.
d. Monitoring Frequency:	Pressure drop is monitored once each day of operation.
e. Data Collection Procedures:	Pressure drop is manually recorded once each day of operation. The observation log includes the observation date, time, and pressure drop reading.

B. Visible Emissions	
Indicator:	Visible Emissions
Indicator Range:	Excursion is defined as any visible emissions.
Performance Criteria:	
a. Data Representativeness:	Visible emissions determination is used to determine the effectiveness of the baghouse. Recorded observations will be completed during periods of normal operation by a competent observer.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The observer will be familiar with baghouse operations.
d. Monitoring Frequency:	S10 will be checked once each day of operation during daylight hours. During inclement weather, only pressure drop across CE10 will be recorded.
e. Data Collection Procedures:	Visible emissions reading recorded once each day of operation. The observation log includes the observation date, time, and results.

MONITORING APPROACH JUSTIFICATION

I. Background

The Hammermilling Baghouse #1 (CE10) controls particulate matter (PM) from hammermills #1 through #3.

II. Rationale for Selection of Performance Indicators

a. ***Pressure Drop –*** An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, the cleaning equipment is damaged, the bags are becoming inefficient, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags.

b. ***Visible Emissions –*** Visible emissions were selected as a performance indicator because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Visible emissions may indicate broken or loose bags. Any visible emissions indicates reduced performance of a particulate control device.

III. Rationale for Selection of Indicator Ranges

c. ***Pressure Drop –*** The indicator range for the baghouse pressure drop is 0.1 to 6.0 inches of water column based on control equipment design specifications.

d. ***Visible Emissions –*** No visible emissions are anticipated from S10 during normal operation. Any visible emissions is selected based on Environmental Protection Agency (EPA) Method 22 as this method does not require the opacity of emissions be determined. Since this method requires only the determination of whether visible emissions occur and does not require the determination of opacity levels, observer certification according to the procedures of EPA Method 9 is not required.

IV. Performance test

In December 2010, a performance test was performed on the hammermilling baghouse #1 (S10). This testing was performed under conditions of maximum emissions potential (i.e., maximum production capacity). The calculated PM emissions were 0.10 lb/hr. This is well within the permit limit.

The baghouse pressure drop was recorded. This testing confirmed that the chosen indicator range for the pressure drop correlates with compliance with the particulate limit.

A copy of the performance test report (including these observation data) was provided to IDNR in February 2010.

No notable changes have taken place to the hammermilling system or the baghouse since the performance test. Therefore, this CAM Plan meets the requirements of 40 CFR 64.

Baghouse for Particulate Matter (PM) Control – CE41

I. Background

a. Emission Unit

Description:	DDGS Cooler #1 Baghouse
Identification:	CE41 (S41)
Facility:	Pine Lake Corn Processors 33371 170th Street Steamboat Rock, IA 50672

b. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	Permit No. 03-A-625-S9 Avoid major source under PSD.
Emission Limits:	Total PM • ≤ 0.1 gr/dscf - 567 IAC 23.4(7) • ≤ 1.0 lb/hr - 567 IAC 23.4(7) Opacity: ≤40% Opacity - 567 IAC 23.3(2)“d”
Monitoring Requirements:	CE 41 Baghouse Pressure Drop S41 Visible Emissions

c. Control Technology

Control Technology:	Baghouse (Pulse jet cleaning or equivalent technology)

II. Monitoring Approach

A. Pressure Drop	
Indicator:	Pressure drop across the baghouse is measured with a differential pressure gauge. It is monitored each day of operation and manually recorded daily.
Indicator Range:	An excursion is defined as a pressure drop greater than 6.0 or less than 0.1 inches of water column.
Performance Criteria:	
a. Data Representativeness:	Pressure taps are located at the baghouse inlet and outlet.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The control equipment is inspected and maintained according to the manufacturer's specifications and instructions. A log of all maintenance and inspection activities will be kept, with inspection activities completed at a minimum of once per calendar year. The pressure gauge, tubing and pressure taps are visually inspected quarterly and checked for plugging.
d. Monitoring Frequency:	Pressure drop is monitored once each day of operation.
e. Data Collection Procedures:	Pressure drop is manually recorded once each day of operation. The observation log includes the observation date, time, and pressure drop reading.

B. Visible Emissions	
Indicator:	Visible Emissions
Indicator Range:	Excursion is defined as any visible emissions.
Performance Criteria:	
a. Data Representativeness:	Visible emissions determination is used to determine the effectiveness of the baghouse. Recorded observations will be completed during periods of normal operation by a competent observer.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The observer will be familiar with baghouse operations.
d. Monitoring Frequency:	S41 will be checked once each day of operation during daylight hours. During inclement weather, only pressure drop across CE41 will be recorded.
e. Data Collection Procedures:	Visible emissions reading recorded once each day of operation. The observation log includes the observation date, time, and results.

MONITORING APPROACH JUSTIFICATION

I. Background

The DDGS Cooler #1 Baghouse (CE41) controls particulate matter (PM) from DDGS Cooler #1.

II. Rationale for Selection of Performance Indicators

a. ***Pressure Drop –*** An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, the cleaning equipment is damaged, the bags are becoming inefficient, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags.

b. ***Visible Emissions –*** Visible emissions were selected as a performance indicator because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Visible emissions may indicate broken or loose bags. Any visible emissions indicates reduced performance of a particulate control device.

III. Rationale for Selection of Indicator Ranges

a. ***Pressure Drop –*** The indicator range for the baghouse pressure drop is 0.1 to 6.0 inches of water column based on control equipment design specifications.

b. ***Visible Emissions –*** No visible emissions are anticipated from S41 during normal operation. Any visible emissions is selected based on Environmental Protection Agency (EPA) Method 22 as this method does not require the opacity of emissions be determined. Since this method requires only the determination of whether visible emissions occur and does not require the determination of opacity levels, observer certification according to the procedures of EPA Method 9 is not required.

IV. Performance test

In September 2005, a performance test was performed on the DDGS Cooler #1 baghouse (S41). This testing was performed under conditions of maximum emissions potential (i.e., maximum production capacity). The measured PM emissions were 0.36 lb/hr. This is well within the permit limit.

The baghouse pressure drop wasn't recorded during the testing. However, the pressure drop for CE41 has historically been between 0.1 – 6.0 inches of water column, and other performance tests (for VOCs) have been completed on the DDGS Cooler #1 baghouse with the pressure drop recorded within the normal range, thus the chosen indicator range for the pressure drop correlates with compliance with the particulate limit.

A copy of the performance test report was provided to IDNR in November 2005. No notable changes have taken place to the DDGS Cooler #1 system or the baghouse since the performance test. Therefore, this CAM Plan meets the requirements of 40 CFR 64.

Baghouse for Particulate Matter (PM), PM Less Than 10 Microns in Diameter (PM10), and PM Less Than 10 Microns in Diameter (PM2.5) Control

III. Background

a. Emission Unit

Description:	DDGS Cooler #2 Baghouse
Identification:	CE42-2 (S42)
Facility:	Pine Lake Corn Processors 33371 170th Street Steamboat Rock, IA 50672

b. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	Permit No. 16-A-491-S4 Avoid major source under PSD.
Emission Limits:	PM, PM_{10}, $PM_{2.5}$: • ≤ 0.1 gr/dscf - 567 IAC 23.4(7) • ≤ 4.0 lb/hr - 567 IAC 23.4(7) Opacity: ≤40% Opacity - 567 IAC 23.3(2)"d"
Monitoring Requirements:	CE 42-2 Baghouse Pressure Drop S42 Visible Emissions

c. Control Technology

Control Technology:	Baghouse (Pulse jet cleaning or equivalent technology)

IV. Monitoring Approach

A. Pressure Drop	
Indicator:	Pressure drop across the baghouse is measured with a differential pressure gauge. It is monitored each day of operation and manually recorded daily.
Indicator Range:	An excursion is defined as a pressure drop greater than 6.0 or less than 0.1 inches of water column.
Performance Criteria:	
a. Data Representativeness:	Pressure taps are located at the baghouse inlet and outlet.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The control equipment is inspected and maintained according to the manufacturer's specifications and instructions. A log of all maintenance and inspection activities will be kept, with inspection activities completed at a minimum of once per calendar year. The pressure gauge, tubing and pressure taps are visually inspected quarterly and checked for plugging.
d. Monitoring Frequency:	Pressure drop is monitored once each day of operation.
e. Data Collection Procedures:	Pressure drop is manually recorded once each day of operation. The observation log includes the observation date, time, and pressure drop reading.

B. Visible Emissions	
Indicator:	Visible Emissions
Indicator Range:	Excursion is defined as any visible emissions.
Performance Criteria:	
a. Data Representativeness:	Visible emissions determination is used to determine the effectiveness of the baghouse. Recorded observations will be completed during periods of normal operation by a competent observer.
b. Verification of Operational Status	N/A
c. OA/AC Practices and Criteria	The observer will be familiar with baghouse operations.
d. Monitoring Frequency:	S42 will be checked once each day of operation during daylight hours. During inclement weather, only pressure drop across CE42-2 will be recorded.

e. Data Collection Procedures:	Visible emissions reading recorded once each day of operation. The observation log includes the observation date, time, and results.

MONITORING APPROACH JUSTIFICATION

V. Background

The DDGS Cooler #2 Baghouse (CE42-2) controls particulate matter (PM) from DDGS Cooling #2 and DDGS handling.

VI. Rationale for Selection of Performance Indicators

a. ***Pressure Drop –*** An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, the cleaning equipment is damaged, the bags are becoming inefficient, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags.

b. ***Visible Emissions –*** Visible emissions were selected as a performance indicator because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Visible emissions may indicate broken or loose bags. Any visible emissions indicates reduced performance of a particulate control device.

VII. Rationale for Selection of Indicator Ranges

a. ***Pressure Drop –*** The indicator range for the baghouse pressure drop is 0.1 to 6.0 inches of water column based on control equipment design specifications.

b. ***Visible Emissions –*** No visible emissions are anticipated from S42 during normal operation. Any visible emissions is selected based on Environmental Protection Agency (EPA) Method 22 as this method does not require the opacity of emissions be determined. Since this method requires only the determination of whether visible emissions occur and does not require the determination of opacity levels, observer certification according to the procedures of EPA Method 9 is not required.

VIII. Performance test

Performance testing for total PM on S42 was not required. In September 2005, a performance test was performed on the DDGS Cooler #1 (S41) which is equivalent to baghouse CE42-2. This testing was performed under conditions of maximum emissions potential (i.e., maximum production capacity). The measured total PM emissions were 0.36 lb/hr. This is well within the permit limit.

The baghouse pressure drop wasn't recorded during the testing. However, the pressure drop for CE42-2 has historically been between 0.1 – 6.0 inches of water column, and other performance tests (for VOCs) have been completed on the DDGS Cooler #2 baghouse with the pressure drop recorded within the normal range, thus the chosen indicator range for the pressure drop correlates with compliance with the particulate limit.

No notable changes have taken place to the DDGS Cooler #2 system or the baghouse. Therefore, this CAM Plan meets the requirements of 40 CFR 64.