Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Green Plains Ethanol Storage, LLC (GP Shenandoah)
Facility Location: 4124 Airport Road, Shenandoah, Iowa 51601
Air Quality Operating Permit Number: 13-TV-004R2
Expiration Date: 4/15/2029
Permit Renewal Application Deadline: 10/15/2028

EIQ Number: 92-6961
Facility File Number: 36-10-001

Responsible Official
Name: Jeremy DuMond
Title: Vice President of EHSS
Mailing Address: 1811 Aksarben Drive, Omaha, NE 68106
Phone #: (402) 952-4850

Permit Contact Person for the Facility
Name: Cory Scamman
Title: Plant Manager
Mailing Address: 4124 Airport Road, Shenandoah, IA 51601
Phone #: (402) 489-1111

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

For the Director of the Department of Natural Resources

04/16/2024

Marnie Stein, Supervisor of Air Operating Permits Section — Date

Table of Contents

Abbreviations

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
CE .....control equipment
CEM.....continuous emission monitor
^{o}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 .....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS .....new source performance standard
NESHAP .....National Emission Standards for Hazardous Air Pollutants
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
$PM_{2.5}$ .....particulate matter two and a half microns or less in diameter
PM_{10} .....particulate matter ten 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: Green Plains Ethanol Storage, LLC (GP Shenandoah)
Permit Number: 13-TV-004R2

Facility Description: Industrial Organic Chemicals/Ethanol Production (SIC 2869)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-SV01	EU-01	Truck Receiving #1	06-A-340-S4
	EU-02	Truck Receiving #2	
	EU-04	Rail Receiving	
	EU-05	Grain Elevator #1	
	EU-06	Grain Elevator #2	
	EU-08	Grain Bin #1	
	EU-09	Grain Bin #2	
	EU-47	Fill Conveyor #2	
	EU-49	Reclaim Conveyor #2	
	EU-50	Reclaim Conveyor #3	
	EU-51	Transfer Conveyor #1	
EP-SV02	EU-11	Hammermill #1	06-A-341-S3
	EU-12	Hammermill #2	
	EU-54	Hammermill #3	
	EU-14	Grinder Bucket Elevator	
EP-SV03	EU-15	Fermenter #1	06-A-342-S10
	EU-16	Fermenter #2	
	EU-17	Fermenter #3	
	EU-18	Fermenter #4	
	EU-53	Fermenter #5	
	EU-55	Fermenter #6	
	EU-19	Beer Well	
EP-SV04	EU-20	Slurry Mixer	06-A-343-S11
	EU-21	Slurry Tank	
	EU-22	Cook Tube	
	EU-23	Flash Vessel	
	EU-26	Yeast Tank	
	EU-27	Beer Column	
	EU-28	Side Stripper	
	EU-29	Rectifier Column	
	EU-30	190 Proof Condenser	
	EU-31	Molecular Sieve #1 - #3	

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
(continued) EP-SV04	EU-32	200 Proof Condenser	(continued) 06-A-343-S11
	EU-33	Centrifuges	
	EU-34	Evaporators	
	EU-35	DDGS Dryer A	
	EU-36	DDGS Dryer B	
	EU-37	TO/HRSG	
	EU-56	Beer Column #2	
	EU-57	Molecular Sieve #4 - #6	
	EU-59	Sieve Vaporizer	
	EU-60	Protein Dryer	
	EU-66	Fiber Slurry Tank	
	EU-67	Pressure Screen Feed Tank	
	EU-68	Fiber Blowdown Tank	
	EU-69	MSC Acid Wash Tank	
	EU-70	Clarifier Feed Tank	
	EU-71	Clarifier Overflow Tank	
	EU-72	Clarifier Underflow Tank	
	EU-73	Protein Decanters #1-#4	
	EU-74	Protein Collection Conveyors	
	EU-75	Slurry Water Tank	
	EU-76	Protein Centrate Tank	
	EU-77	Fiber Decanters #1-#4	
	EU-78	Fiber Collection Conveyors	
	EU-79	Paddle Screens #1 & #2	
	EU-80	1st Stage FPB Paddle Screens #1, #2, & #3	
	EU-81	2nd Stage FPB Paddle Screens #1, #2, & #3	
	EU-82	3rd Stage FPB Paddle Screens #1, #2, & #3	
	EU-83	4th Stage FPB Paddle Screens #1 & #2	
	EU-84	Saccharification Feed Tank	
	EU-86	Saccharification Tank #1	
	EU-87	Saccharification Tank #2	
	EU-88	Saccharification Tank #3	
	EU-89	Saccharification Tank #4	
	EU-90	Saccharification Tank #5	
	EU-91	Saccharification Tank #6	
	EU-92	Saccharification Tank #7	
	EU-93	Saccharification Tank #8	
	EU-94	Gravity Filter #1 & #2	
	EU-95	Retentate Tank	
	EU-96	Permeate Tank	
	EU-97	Microfiltration CIP Tank	

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
(continued) EP-SV04	EU-98	Sugar (Syrup) Evaporator	(continued) 06-A-343-S11
	EU-99	Process Condensate Tank	
	EU-100	Evaporation CIP Tank	
EP-SV05	EU-38	DDGS Cooling	06-A-344-S5
EP-SV06	EU-39	DDGS Storage	06-A-345-S2
	EU-40	DDGS Conveyor	
	EU-41	DDGS Truck Loadout	
EP-SV07	EU-42	Ethanol Truck Loadout	06-A-346-S4
	EU-43	Ethanol Rail Loadout	
EP-SV09	EU-45	Diesel Fire Pump	06-A-348-S1
EP-SV10	EU-24	Liquefaction Tank #1	12-A-035-S2
	EU-25	Liquefaction Tank #2	
EP-SV11	EU-46	Grain Bin #3	16-A-170-S1
	EU-48	Fill Conveyor #3	
EP-SV12	EU-52	Natural Gas Boiler #2	16-A-341
EP-SV13A	EU-60	Protein Dryer Start-Up Stack – NG Combustion Exhaust	18-A-428
EP-SV15	EU-62	Protein Storage Silo #1	18-A-430-S4
	EU-63	Protein Storage Silo #2	
	EU-64	Protein Loadout System	
EP-SV16	EU-61	Protein Cooling System	20-A-112
EP-SV19	EU-85	Cooling Tower	22-A-419
EP-FS001	EU-FS001	Paved Road	06-A-351-S4
EP-FS002	EU-FS002	Grain Receiving Uncaptured	NA
EP-FS003	EU-FS003	DDGS Loadout Uncaptured	NA
EP-FS004	EU-FS004	DDGS Storage Uncaptured	NA
EP-FS005	EU-FS005	Cooling Tower (4 Cells)	06-A-349
EP-FS006	EU-FS006	VOC Emissions from Equipment Leaks	06-A-350-S4
EP-TK001	EU-TK001	190 Proof Ethanol Storage Tank	06-A-352-S1
EP-TK002	EU-TK002	200 Proof Ethanol Storage Tank	06-A-353-S1
EP-TK003	EU-TK003	Denaturant Storage Tank	06-A-354-S1
EP-TK004	EU-TK004	Denatured Ethanol Storage Tank	06-A-355-S1
EP-TK005	EU-TK005	Denatured Ethanol Storage Tank	06-A-356-S1
T-EIA01	T-EIA01	Gasoline Tank (150 gallon)	None

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
LI-8411	Corrosion Inhibitor Storage Tank (2,300 gallon)
LI-6801	Thin Stillage Tank (146,000 gallon)
LI-6810	Syrup Tank (50,000 gallon)
LI-6101	Whole Stillage Tank (50,000 gallon)
LI-2101	Cook Water Tank 1 (50,000 gallon)
LI-2112	Cook Water Tank 2
LI-12501	Sulfuric Acid Tank (7,100 gallon)
T-EIA02	Diesel Tank (300 gallon)
T-EIA03	Diesel Tank (500 gallon)
T-EIA04	Parts Washer (500 gal/yr)
T-EIA05	Temporary Grain Storage Receiving Pit and 2 Temporary Grain Storage Piles

Insignificant Activities Equipment List (Small Unit Exemption) [1]

Insignificant Emission Unit Number	Insignificant Emission Unit Description
TS-6851	Corn Oil Syrup Feed Tank (1,690 gallon)
TS-8901	Corn Oil Storage Tank (6,200 gallon)
TS-8902	Corn Oil Storage Tank (6,200 gallon)
TS-6852	Corn Oil Syrup Receiver Tank (336 gallon)
TS-6853	Corn Oil Receiver Tank (200 gallon)
TS-6854	Corn Oil Receiver Tank (300 gallon)
SV18	HCl Storage Tank
SV20	CST Brinemaker Storage Tank

[1] Emission Units qualify for Small Unit Exemption under 567 IAC 22.1(2)"w". Records shall be kept in accordance with 567 IAC 22.1(2)"w"(3).

II. Plant-Wide Conditions

Facility Name: Green Plains Ethanol Storage, LLC (GP Shenandoah)
Permit Number: 13-TV-004R2

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

Permit Duration
The term of this permit is: Five years from permit issuance
Commencing on: 4/16/2024
Ending on: 4/15/2029

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

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

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

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

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

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: Green Plains Ethanol Storage, LLC (GP Shenandoah)
Permit Number: 13-TV-004R2

Emission Point ID Number: EP-SV01

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-01	Truck Receiving #1	CE01: Baghouse	Corn	15,000 bushel/hr	06-A-340-S4
EU-02	Truck Receiving #2		Corn	15,000 bushel/hr	
EU-04	Rail Receiving		Corn	15,000 bushel/hr	
EU-05	Grain Elevator #1		Corn	15,000 bushel/hr	
EU-06	Grain Elevator #2		Corn	15,000 bushel/hr	
EU-08	Grain Bin #1		Corn	300,000 bushels	
EU-09	Grain Bin #2		Corn	300,000 bushels	
EU-47	Fill Conveyor #2		Corn	30,000 Bushels/hr	
EU-49	Reclaim Conveyor #2		Corn	10,000 Bushels/hr	
EU-50	Reclaim Conveyor #3		Corn	10,000 Bushels/hr	
EU-51	Transfer Conveyor #1		Corn	10,000 Bushels/hr	

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-340-S4
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.67 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-340-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.67 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-340-S4
567 IAC 23.4(7)

Operational Requirements with Associated Monitoring and Recordkeeping

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

A. The grain bins shall be filled only while under negative pressure and vented to the control equipment.
B. The owner or operator shall operate, inspect, and maintain all the equipment associated with the process and the Baghouse (CE-01) according with good air pollution control practices and manufacturer's specifications.
    i. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection or maintenance of the Baghouse (CE-01).
C. A maximum of 35.1 million bushels of corn per twelve month rolling period may be received plantwide.
    i. The owner or operator shall keep records of the amount of corn received, and update the twelve month rolling total on a monthly basis.

Authority for Requirement: DNR Construction Permit 06-A-340-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 132
Stack Opening, (inches, dia.): 44
Exhaust Flow Rate (scfm): 35,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-340-S4

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV02

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-11	Hammermill #1	CE02: Baghouse	Corn	1,250 bushel/hr	06-A-341-S3
EU-12	Hammermill #2		Corn	1,250 bushel/hr	
EU-54	Hammermill #3		Corn	1,250 bushel/hr	
EU-14	Grinder Bucket Elevator		Corn	1,500 bushel/hr	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06A-341-S3
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter ($PM_{2.5}$)
Emission Limit(s): 0.75 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-341-S3

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.75 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-341-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.75 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-341-S3
567 IAC 23.4(7)

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 facility shall inspect and maintain the control equipment according to manufacturer's specifications.
B. The owner or operator shall keep records of control equipment inspection and maintenance.

Authority for Requirement: DNR Construction Permit 06-A-341-S3

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

Stack Height, (ft, from the ground): 132
Stack Opening, (inches, dia.): 38
Exhaust Flow Rate (scfm): 21,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-341-S3

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

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

Stack Testing:

Pollutant – PM/PM_{10}/$PM_{2.5}$
Stack Test to be Completed by (date) – 4/15/2026
Test Method – 40 CFR 60, Appendix A, Method 5 (PM)
40 CFR 51, Appendix M Method 202 (PM)
40 CFR 51, Appendix M, 201A with 202 (PM_{10} & $PM_{2.5}$)
Authority for Requirement: 567 IAC 22.108(3)

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

Agency Approved Operation & Maintenance Plan Required?	**Yes** ☐ **No** ☒
Facility Maintained Operation & Maintenance Plan Required?	**Yes** ☒ **No** ☐
Compliance Assurance Monitoring (CAM) Plan Required?	**Yes** ☐ **No** ☒

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV03

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-15	Fermenter #1	CE03: Packed Bed Scrubber	Ethanol	730,000 gallons	06-A-342-S10
EU-16	Fermenter #2		Ethanol	730,000 gallons	
EU-17	Fermenter #3		Ethanol	730,000 gallons	
EU-18	Fermenter #4		Ethanol	730,000 gallons	
EU-53	Fermenter #5		Ethanol	730,000 gallons	
EU-55	Fermenter #6		Ethanol	730,000 gallons	
EU-19	Beer Well		Beer	985,000 gallons	

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-342-S10
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.20 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-342-S10
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 19.6 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-342-S10

Pollutant: Acetaldehyde
Emission Limit(s): 0.77 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-342-S10

Pollutant: Single HAP
Emission Limit(s): 0.13 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-342-S10

Pollutant: Total HAP
Emission Limit(s): 0.90 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-342-S10

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. For each month of operation, the facility shall operate the scrubber according to the parameters (scrubber liquid flow rate and additive feed rate) that it established during the seasonal performance testing required in the Monitoring Requirements section to demonstrate compliance with the permitted emission limits.

Table 1 - Permitted Monthly Scrubber Operating Parameters as Allowed by Season Tested

Season Tested	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Summer (testing shall be conducted in June, July or August)	X	X	X	X	X	X	X	X	X	X	X	X
Winter (testing allowed in any month from October through April	X	X	X	X						X	X	X

B. The owner or operator shall maintain an average pressure drop across the Packed Bed Scrubber (CE-03) that is greater than 4.5 inches water column based on a 24-hour rolling averaging period.
   a. The owner or operator shall record the scrubber pressure drop on a daily basis.
   b. The owner or operator shall establish an alarm setting for the purpose of initiating corrective action based on a pressure drop across the scrubber of 4.0 inches water column or less. After the collection of 12 months of pressure drop data, the owner or operator shall re-evaluate the minimum pressure drop requirements to determine if the pressure drop monitoring needs to be adjusted. If so, the owner or operator shall submit a permit modification request to the Department.

      On those days when there is an alarm for the pressure drop reaching 4 inches water column or less, calculate and record the average pressure drop across the scrubber based on a 24-hour rolling average. This requirement shall not apply on the days that the scrubber is not in operation or during facility start-up, shutdown or during operation at less than 50% of capacity. If the pressure drop deviates below the minimum required, then record the time, date, and actions taken to correct the situation and record when the pressure drop is back above the minimum average pressure drop required.

C. The Packed Bed Scrubber (CE-03) shall have a minimum scrubber liquid flow rate that is calculated as 90 percent of the total liquid flow rate at the inlet to the scrubber measured during the most recent performance test that demonstrated compliance with the VOC and HAP emission limitations listed above.
   a. The owner or operator shall record the scrubber liquid flow rate on a daily basis.
      i. If the flow rate deviates below the minimum required, then the owner or

operator shall record the time, date, and actions taken to correct the situation.

ii. The owner or operator shall also record when the flow rate is back above the minimum required.

b. If the flow rate deviates below the minimum flow rate required (i.e., 90 percent of the average liquid flow rate observed during the applicable seasonal performance test), then the facility shall record the time, date and actions taken to correct the situation and when the flow rate is back above the minimum flow rate required.

c. The facility shall record the permitted scrubbing liquid flow rate it is utilizing for each month as determined during the most recent seasonal performance test that it is using to demonstrate compliance.

D. Any additive added to the scrubber liquid during a compliance test to enhance the efficiency of the scrubber shall be added, for that month, at a rate greater than or equal to the rate recorded during the applicable seasonal operating performance test that demonstrated compliance with the VOC and HAP emission limitations listed above.

a. The owner or operator shall record the rate of additive to the scrubber liquid on a daily basis.

b. If the additive feed rate deviates below the required rate (i.e. average additive feed rate observed during the applicable seasonal performance test), then the owner or operator shall record the time, date, and actions taken to correct the situation and when the additive feed rate is back above the minimum required.

c. The facility shall record the permitted additive feed rate it is utilizing for each month as determined during the most recent seasonal performance test that it is using to demonstrate compliance.

E. The owner or operator shall maintain onsite a copy of the most recent performance tests for each scrubber operating scenario detailing pressure drop, scrubber liquid flow rate, and additive feed rate measured during each seasonal performance test that demonstrated compliance with the emission limits listed above.

F. The owner or operator shall inspect and maintain the Packed Bed Scrubber (CE-03) according to the facility's (Plant No. 36-10-001) operation and maintenance plan.

a. The owner or operator shall keep a log of all maintenance and inspection activities performed on the scrubber. This log shall include, but shall not be limited to:

i. The date that any inspection and/or maintenance was performed on the control equipment;

ii. Any issues identified during the inspection;

iii. Any issues addressed during the maintenance activities; and

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

Authority for Requirement: DNR Construction Permit 06-A-342-S10

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

Stack Height, (ft, from the ground): 79
Stack Opening, (inches): 23.5
Exhaust Flow Rate (scfm): 9,400
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-342-S10

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

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

Stack Testing Requirements:
Pollutant – VOC
Frequency – Once Every 36 Months[(1)(2)(3)]
Test Method - 40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
Authority for Requirement - DNR Construction Permit 06-A-342-S10

Pollutant – HAP
Frequency – Once Every 36 Months[(1)(2)(3)(4)]
Test Method – 40 CFR 63, Appendix A, Method 18 or 40 CFR 60, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 06-A-342-S10

[(1)]The facility shall conduct stack testing for the qualifying seasonal period covering the months of May through September (summer) once every 36 months, as described in Operating Condition A, above. Stack testing shall be conducted during the months of June, July, or August for this period. The facility shall use those tests that demonstrate compliance with the permitted emission limits listed above to establish the scrubber liquid flow rate, additive feed rate and, scrubbing water temperature (if a chiller is used to control scrubbing water temperature) for each month of operation, as detailed in the Operating Conditions above. The next test must be completed by August 31, 2025.

[(2)]The facility shall conduct stack testing for the qualifying seasonal period covering the months of October through April (winter) once every 36 months, as described in Operating Condition A.

[(3)]If any test is greater than 90% of the applicable emission limitation, the facility must conduct stack testing on an annual basis. If 3 consecutive annual tests are less than 90% of the applicable emission limitation, the facility may request to revert the stack testing frequency to once every three years. This requirement shall apply separately to each seasonal period (summer and winter).

[4]The required stack testing shall be conducted for Single HAP and Total HAP. Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde, and methanol, any HAP whose emissions are below the detection limit shall be assumed to be zero.

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** ☐

*This requirement is satisfied by complying with the requirements in Operating Requirements with Associated Monitoring and Recordkeeping section above.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV04

Associated Equipment

Control Equipment ID Number and Descriptions:

CE04: Regenerative Thermal Oxidizer – All units

CE09 and CE10: Centrifugal Collectors for DDGS Dryers only (EU-35 & EU-36)

CE15: Vortex Scrubber for Protein Dryer only (EU-60).

Continuous Emissions Monitors ID Numbers: ME-01

Current Equipment			
EU	Emission Unit Description	Raw Material	Rated Capacity
EU-20	Slurry Mixer	Wet Mixed Slurry	2500 bu/hr with 600 gpm of water
EU-21	Slurry Tank		17,000 gallons
EU-22	Cook Tube	Feed Material	5,000 gallons
EU-23	Flash Vessel	Ethanol	2,400 gallons
EU-26	Yeast Tank	Yeast	13,500 gallons
EU-27	Beer Column	Beer	36,000 gallons
EU-28	Side Stripper	Beer	6,300 gallons
EU-29	Rectifier Column	Ethanol	30,000 gallons
EU-30	190 Proof Condenser	Ethanol	5,000 gallons
EU-31	Molecular Sieve #1 - #3	Ethanol	7,900 gallons
EU-32	200 Proof Condenser	Ethanol	80 gallons
EU-33	Centrifuges	Other	300-350 gpm
EU-34	Evaporators	Other	10,000 gallons
EU-35	DDGS Dryer A	DDGS	40 MMBtu/hr
EU-36	DDGS Dryer B	DDGS	40 MMBtu/hr
EU-37	TO/HRSG	Natural Gas	125 MMBtu/hr
EU-56	Beer Column #2	Beer	
EU-57	Molecular Sieve #4 - #6	Ethanol	
EU-59	Sieve Vaporizer	Ethanol	1,485 gallons
EU-60	Protein Dryer	Feed Material	62 MMBtu/hr; 8 tons/hr protein
EU-66	Fiber Slurry Tank	Wet Mixed Slurry	22,900 gallons
EU-67	Pressure Screen Feed Tank	Feed Material	8,100 gallons
EU-68	Fiber Blowdown Tank	Fiber	18,400 gallons
EU-69	MSC Acid Wash Tank	Other	5,875 gallons
EU-70	Clarifier Feed Tank	Feed Material	13,600 gallons
EU-71	Clarifier Overflow Tank	Feed Material	11,600 gallons
EU-72	Clarifier Underflow Tank	Feed Material	11,600 gallons
EU-73	Protein Decanters #1-#4	Feed Material	Each: 300 gpm
EU-74	Protein Collection Conveyors	Feed Material	32 TPH
EU-75	Slurry Water Tank	Wet Mixed Slurry	22,900 gallons
EU-76	Protein Centrate Tank	Feed Material	1,200 gallons
EU-77	Fiber Decanters #1-#4	Feed Material	Each: 300 gpm
EU-78	Fiber Collection Conveyors	Feed Material	30 tons per hour

Authority for Requirement: DNR Construction Permit 06-A-343-S10

Equipment to be Constructed - Clear Sugar Technology (CST)			
EU	Emission Unit Description	Raw Material	Rated Capacity
EU-79	Paddle Screens #1 & #2	Wet Mix Slurry	112 tons per hour
EU-80	1st Stage FPB Paddle Screens #1, #2, & #3	Wet Mix Slurry	361 tons per hour
EU-81	2nd Stage FPB Paddle Screens #1, #2, & #3	Wet Mix Slurry	279 tons per hour
EU-82	3rd Stage FPB Paddle Screens #1, #2, & #3	Wet Mix Slurry	213 tons per hour
EU-83	4th Stage FPB Paddle Screens #1 & #2	Wet Mix Slurry	165 tons per hour
EU-84	Saccharification Feed Tank	Syrup/Sugar	6,400 gallons
EU-86	Saccharification Tank #1	Syrup/Sugar	170,000 gallons
EU-87	Saccharification Tank #2	Syrup/Sugar	170,000 gallons
EU-88	Saccharification Tank #3	Syrup/Sugar	170,000 gallons
EU-89	Saccharification Tank #4	Syrup/Sugar	170,000 gallons
EU-90	Saccharification Tank #5	Syrup/Sugar	170,000 gallons
EU-91	Saccharification Tank #6	Syrup/Sugar	170,000 gallons
EU-92	Saccharification Tank #7	Syrup/Sugar	170,000 gallons
EU-93	Saccharification Tank #8	Syrup/Sugar	170,000 gallons
EU-94	Gravity Filter #1 & #2	Syrup/Sugar	135 tons per hour
EU-95	Retentate Tank	Ethanol	11,040 gallons
EU-96	Permeate Tank	Syrup/Sugar	11,040 gallons
EU-97	Microfiltration CIP Tank	Other	1,200 gallons
EU-98	Sugar (Syrup) Evaporator	Syrup/Sugar	127 tons per hour (name plate capacity) 32 tons/hr (process design capacity)
EU-99	Process Condensate Tank	Other	5,000 gallons
EU-100	Evaporation CIP Tank	Other	19,500 gallons

Authority for Requirement: DNR Construction Permit 06-A-343-S11

Applicable Requirements – Current State, Pre-change

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

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

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permit 06-A-343-S10
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 8.00 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

Pollutant: Particulate Matter (PM)
Emission Limit(s): 8.00 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-343-S10
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 16.04 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 20.78 lb/hr, 0.1 lb/MMBtu [(2)]
Authority for Requirement: DNR Construction Permit 06-A-343-S10
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

[(2)]This limit applies to EU37 only. The limit is on a 30 day rolling average basis, and applies at all times, including periods of startup, shutdown and malfunction.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 9.92 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 20.55 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

Pollutant: Acetaldehyde
Emission Limit(s): 0.74 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

Pollutant: Single HAP
Emission Limit(s): 1.02 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

Pollutant: Total HAPs
Emission Limit(s): 2.06 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S10

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 Requirements

A. The owner or operator shall inspect and maintain the Thermal Oxidizer (CE04), Centrifugal Collectors (CE09 and CE10), and Vortex Scrubber (CE15) according to the facility's (Plant No. 36-10-001) operation and maintenance plan. The owner or operator

shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:

i. The date any inspection and/or maintenance was performed on the control equipment;
ii. Any issues identified during the inspection;
iii. Any issues addressed during the maintenance activities; and,
iv. Identification of the staff member performing the maintenance or inspection.

B. During operation, Thermal Oxidizer (CE04) shall maintain a temperature (3-hour block average) at no less than 50 degrees Fahrenheit below the average temperature recorded during the most recent performance test which demonstrated compliance with the VOC and HAP emission limits.

i. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the Thermal Oxidizer. 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 a written facility-specific operation and maintenance plan.
ii. The owner or operator shall collect and record the temperature of the Thermal Oxidizer (CE04) at a minimum of once every 15 minutes and calculate and record the 3-hour block average. The 3-hour block average shall be calculated in successive, nonoverlapping periods, and shall be calculated using all data points collected during the averaging period. This requirement shall not apply on the days the Thermal Oxidizers, or the equipment the Thermal Oxidizer controls, is not in operation.
iii. The owner or operator shall record all periods (during actual operations) where the 3-hour block average temperature is less than 50 degrees Fahrenheit below the average temperature recorded during the most recent performance test which demonstrated compliance with the VOC and HAP emission limits. This requirement shall not apply in instances where there is unavailable data for the 3-hour block average.
iv. The owner or operator shall retain the most recent stack tests for the Thermal Oxidizer (CE04) that demonstrated compliance with the VOC and HAP emission limits. The permittee shall document the average temperature recorded during those tests, and calculate and document the minimum temperature the Thermal Oxidizer (CE04) shall operate above (50 degrees Fahrenheit below the average temperature recorded during the most recent VOC and HAP performance test which demonstrated compliance with the VOC and HAP emission limits).

C. The owner or operator shall operate the Thermal Oxidizer (CE04) at all times that process streams are being vented to the equipment.

i. The owner or operator shall keep records of the frequency and amount of time the Thermal Oxidizer malfunctions, and estimate the emissions emitted during said malfunctions.

D. The owner or operator shall maintain the Vortex Scrubber (CE15) pressure drop between 2 to 9 inches of water column pressure.

i. The owner or operator shall properly operate and maintain equipment to continuously monitor the pressure drop across the Vortex Scrubber (CE15). 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 record the pressure drop in the Vortex Scrubber (CE15), in units of inches of water column, at least once per day. If the pressure drop in the Vortex Scrubber (CE15) falls outside the range in Condition D., the owner or operator shall investigate, make, and document the necessary corrections. This requirement shall not apply on the days that the Vortex Scrubber (CE15) or the equipment that the Vortex Scrubber (CE15) controls is not in operation.

E. The owner or operator may bypass the Vortex Scrubber (CE15) and vent emissions from the Protein Dryer (EU60) directly to the Regenerative Thermal Oxidizer (CE4) in the event of a malfunction of the control device (i.e., loss of water, recirculation pump failure, scrubber booster fan failure, etc.) for a maximum of 500 hours per twelve-month rolling period. The owner or operator shall maintain the following records:

i. For each malfunction event:

1. The date and time that the Vortex Scrubber (CE15) is bypassed;
2. An explanation of the cause and resolution of the malfunction event;
3. The date and time that the Vortex Scrubber (CE15) is returned to normal operation; and,
4. The total number of hours that the Vortex Scrubber (CE15) is bypassed.

ii. On a monthly basis:

1. The monthly number of hours that the Vortex Scrubber (CE15) is bypassed.
2. The twelve-month rolling total number of hours that the Vortex Scrubber (CE15) is bypassed.

NSPS Requirements

F. The DDGS and Protein Dryers (EU35, EU36, and EU60) and Thermal Oxidizer (CE04) shall combust only natural gas and/or process off gases. The TO/HRSG (EU37) shall not combust any supplemental fuel.

i. As indicated in 40 CFR §60.49b(d)(1), the owner or operator shall record and maintain records of the amounts of each fuel combusted in the thermal oxidizer/heat recovery boiler system during each day. In addition, the owner or operator shall calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated by the end of each calendar month for the previous month. Per 40 CFR §60.41b, the annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

G. The owner or operator shall comply with the applicable standards in 40 CFR Part 60, Subpart Db – *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* [§60.40b - §60.49b], including those not specifically mentioned in this

permit. If differences in language are found between this permit and Subpart Db, the language specified in Subpart Db shall be considered correct.

H. As indicated in 40 CFR §60.46b(e)(3), the owner or operator shall demonstrate compliance with the emission limits for NO_X required in §60.44b (lb/MMBtu) on a continuous basis through the use of a 30-day rolling average emission rate.

I. As indicated in 40 CFR §60.49b(g), the owner or operator shall maintain records of the following information for each steam generating unit operating day and it shall be submitted in a report, as required in 40 CFR §60.49b(i).
   i. Calendar date;
   ii. The average hourly NOx emission (as NO_2) rates measured;
   iii. The 30-day average NOx emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
   iv. Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emission standard under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
   v. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
   vi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
   vii. Identification of the "F" factor used for calculations, method of determination, and type of fuel combusted;
   viii. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
   ix. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
   x. Results of daily CEMS drift tests and quarterly accuracy assessments as required in 40 CFR Appendix F, Procedure 1.

Authority for Requirement: DNR Construction Permit 06-A-343-S10

NSPS Applicability

Emission Unit 37 (Heat Recovery Steam Generator) is subject to 40 CFR Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

Authority for Requirement: DNR Construction Permit 06-A-343-S10
40 CFR 60 Subpart Db
567 IAC 23.1(2)"ccc"

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

Stack Height, (ft, from the ground): 125
Stack Opening, (inches, dia.): 84
Exhaust Flow Rate (scfm): 83,835
Exhaust Temperature (°F): 309
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-343-S10

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

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

Continuous Emissions Monitoring:
A. The following requirements shall apply to all CEMS for NSPS emission standards in this permit:
   i. The owner or operator shall demonstrate compliance with the nitrogen oxide emission through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.
   ii. The 1-hour average NO_X emission rates measured by the NO_X CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).
   iii. Per 40 CFR 60.49b(f), when NO_X emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam

generating unit operating days

iv. The NO_x CEMS shall be operated and data collected as required under 40 CFR §60.48b(c), (d), (e), and (f).

B. The following requirements shall apply to all CEMS for non-NSPS emission standards in this permit:

i. The CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission units associated with EP SV04, except for CEMS breakdowns and repairs. Data is recorded during calibration checks and zero and span adjustments.

ii. The 1-hour average NO_x emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards in this permit. At least two data points must be used to calculate each 1-hour average.

iii. For each hour of missing emission data (NOx), the owner or operator shall substitute data by:

a) If the monitor data availability is equal to or greater than 95.0%, the permittee shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period greater than 24 hours, substitute the greater of:

- The 90^{th} percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or,
- The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

b) If the monitor data availability is at least 90.0% but less than 95.0%, the permittee shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period of more than 8 hours, substitute the greater of:

- The 95^{th} percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or,
- The average of the hourly concentration recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

c) If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

C. The applicable requirements in Appendix F to Part 60 – *Quality Assurance Procedures* shall apply to all CEMS used for determination of compliance with the applicable emission limits

in this permit, including:

i. The owner or operator shall develop and implement a quality control (QC) program. As a minimum, each QC program shall include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:
   a) Calibration of the CEMS;
   b) Calibration drift determination and adjustment of the CEMS;
   c) Preventive maintenance of the CEMS (including spare parts inventory);
   d) Data recording, calculations, and reporting;
   e) Accuracy audit procedures including sampling and analysis methods; and,
   f) Program of corrective action for malfunctioning CEMS.

ii. Whenever excessive inaccuracies occur for two consecutive quarters, the owner or operator shall revise the current written procedures or modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.

iii. The owner or operator shall keep on-site a copy of these written procedures and shall make them available for inspection by the Department.

The owner or operator shall conduct a Relative Accuracy Test Audit (RATA) at least once every four calendar quarters and shall submit RATA reports to the Department as indicated in this permit (see General Condition G30).

Pollutant – Nitrogen Oxides (NO_x)
Monitoring Equipment Number- ME-01
Operational Specifications – 40 CFR Part 60
Date of Initial System Calibration and Quality Assurance – 01/08/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – 567 IAC 25.3
DNR Construction Permit 06-A-343-S10

<u>Other Parameters</u>
Pollutant – Oxygen (O_2)
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 01/08/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – 567 IAC 25.1 (9)
DNR Construction Permit 06-A-343-S10

Stack Testing Requirements: Pre-Change
Pollutant – Volatile Organic Compounds (VOC)
Stack Test to be completed annually[(1)(2)]
Test Method - 40 CFR 63, Appendix A, Method 320 or 40 CFR 60, or Appendix A, Method 18
Authority for Requirement - DNR Construction Permit 06-A-343-S10

Pollutant – HAP[1] [2]
Stack Test to be completed once annually[1][2][3]
Test Method – 40 CFR 63, Appendix A, Method 18 or 40 CFR 60, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 06-A-343-S10

[1]The reoccurring required stack testing shall be conducted during the months of June, July, or August.
[2]Annual stack testing shall be conducted for VOC, Total HAP, and Single HAP. If four consecutive tests demonstrate emissions that are less than 90% of the applicable emissions limits, the owner or operator may submit a request to reduce the frequency of the stack testing to once every three years. The stack testing completed on 2/16/2022 is counted in the four consecutive tests for this requirement. The next test is required on or before August 31, 2023 (Completed 7/19/2023).
[3]Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. The specified HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.

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** ☐

The Thermal Oxidizer (CE-04) CAM requirement is satisfied by complying with the requirements in Operational Limits & Reporting/Record keeping Requirements section above.
Authority for Requirement: 567 IAC 22.108(3)

Applicable Requirements – Future State, Post Change

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

Pollutant: Opacity
Emission Limit(s): 40% [1]
Authority for Requirement: DNR Construction Permit 06-A-343-S11
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 8.00 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

Pollutant: Particulate Matter (PM)
Emission Limit(s): 8.00 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-343-S11
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 16.04 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 20.78 lb/hr, 0.1 lb/MMBtu [(2)]
Authority for Requirement: DNR Construction Permit 06-A-343-S11
567 IAC 23.1(2)"ccc"
40 CFR 60 Subpart Db

[(2)]This limit applies to EU37 only. The limit is on a 30 day rolling average basis, and applies at all times, including periods of startup, shutdown and malfunction.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 10.04 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 20.55 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

Pollutant: Acetaldehyde
Emission Limit(s): 0.76 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

Pollutant: Single HAP
Emission Limit(s): 1.04 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

Pollutant: Total HAPs
Emission Limit(s): 2.08 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-343-S11

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 collect a representative sample of the raw materials used in the Clean Sugar Technology process to determine the acetaldehyde concentration in percent by weight. The samples should be obtained from the location in the process that

is expected to have the highest acetaldehyde concentration. The sample shall be obtained within 60 days after achieving the maximum production rate but not later than 180 days after the initial startup date of the proposed Clean Sugar Technology process. The owner or operator shall use an Iowa DNR approved method to obtain and analyze the sample to determine the concentration.

a. The facility shall document the methods used to make this determination and the acetaldehyde concentration in percent by weight.

B. If the acetaldehyde concentration of the raw materials used in the Clean Sugar Technology process is greater than 0.1 in percent by weight, the facility is subject to NESHAP Subpart VVVVVV, as specified in §63.11494(a)(2)(i), and the owner or operator must comply with requirements of this subpart. In addition, the facility shall obtain the proper permit modifications for this change as specified in 567 IAC 22.1.

Control Equipment Requirements

C. The owner or operator shall inspect and maintain the Thermal Oxidizer (CE04), Centrifugal Collectors (CE09 and CE10), and Vortex Scrubber (CE15) according to the facility's (Plant No. 36-10-001) operation and maintenance plan. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:

v. The date any inspection and/or maintenance was performed on the control equipment;

vi. Any issues identified during the inspection;

vii. Any issues addressed during the maintenance activities; and,

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

D. During operation, Thermal Oxidizer (CE04) shall maintain a temperature (3-hour block average) at no less than 50 degrees Fahrenheit below the average temperature recorded during the most recent performance test which demonstrated compliance with the VOC and HAP emission limits.

v. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the Thermal Oxidizer. 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 a written facility-specific operation and maintenance plan.

vi. The owner or operator shall collect and record the temperature of the Thermal Oxidizer (CE04) at a minimum of once every 15 minutes and calculate and record the 3-hour block average. The 3-hour block average shall be calculated in successive, nonoverlapping periods, and shall be calculated using all data points collected during the averaging period. This requirement shall not apply on the days the Thermal Oxidizers, or the equipment the Thermal Oxidizer controls, is not in operation.

vii. The owner or operator shall record all periods (during actual operations) where the 3-hour block average temperature is less than 50 degrees Fahrenheit below the average temperature recorded during the most recent performance test which demonstrated compliance with the VOC and HAP emission limits. This requirement shall not apply in instances where there is unavailable data for the 3-

hour block average.

viii. The owner or operator shall retain the most recent stack tests for the Thermal Oxidizer (CE04) that demonstrated compliance with the VOC and HAP emission limits. The permittee shall document the average temperature recorded during those tests, and calculate and document the minimum temperature the Thermal Oxidizer (CE04) shall operate above (50 degrees Fahrenheit below the average temperature recorded during the most recent VOC and HAP performance test which demonstrated compliance with the VOC and HAP emission limits).

E. The owner or operator shall operate the Thermal Oxidizer (CE04) at all times that process streams are being vented to the equipment.

i. The owner or operator shall keep records of the frequency and amount of time the Thermal Oxidizer malfunctions, and estimate the emissions emitted during said malfunctions.

F. The owner or operator shall maintain the Vortex Scrubber (CE15) pressure drop between 2 to 9 inches of water column pressure.

i. The owner or operator shall properly operate and maintain equipment to continuously monitor the pressure drop across the Vortex Scrubber (CE15). 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 record the pressure drop in the Vortex Scrubber (CE15), in units of inches of water column, at least once per day. If the pressure drop in the Vortex Scrubber (CE15) falls outside the range in Condition F., the owner or operator shall investigate, make, and document the necessary corrections. This requirement shall not apply on the days that the Vortex Scrubber (CE15) or the equipment that the Vortex Scrubber (CE15) controls is not in operation.

G. The owner or operator may bypass the Vortex Scrubber (CE15) and vent emissions from the Protein Dryer (EU60) directly to the Regenerative Thermal Oxidizer (CE4) in the event of a malfunction of the control device (i.e., loss of water, recirculation pump failure, scrubber booster fan failure, etc.) for a maximum of 500 hours per twelve-month rolling period. The owner or operator shall maintain the following records:

i. For each malfunction event:

1. The date and time that the Vortex Scrubber (CE15) is bypassed;
2. An explanation of the cause and resolution of the malfunction event;
3. The date and time that the Vortex Scrubber (CE15) is returned to normal operation; and,
4. The total number of hours that the Vortex Scrubber (CE15) is bypassed.

ii. On a monthly basis:

1. The monthly number of hours that the Vortex Scrubber (CE15) is bypassed.
2. The twelve-month rolling total number of hours that the Vortex Scrubber (CE15) is bypassed.

NSPS Requirements

H. The DDGS and Protein Dryers (EU35, EU36, and EU60) and Thermal Oxidizer (CE04) shall combust only natural gas and/or process off gases. The TO/HRSG (EU37) shall not combust any supplemental fuel.

ii. As indicated in 40 CFR §60.49b(d)(1), the owner or operator shall record and maintain records of the amounts of each fuel combusted in the thermal oxidizer/heat recovery boiler system during each day. In addition, the owner or operator shall calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated by the end of each calendar month for the previous month. Per 40 CFR §60.41b, the annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

I. The owner or operator shall comply with the applicable standards in 40 CFR Part 60, Subpart Db – *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* [§60.40b - §60.49b], including those not specifically mentioned in this permit. If differences in language are found between this permit and Subpart Db, the language specified in Subpart Db shall be considered correct.

J. As indicated in 40 CFR §60.46b(e)(3), the owner or operator shall demonstrate compliance with the emission limits for NO_X required in §60.44b (lb/MMBtu) on a continuous basis through the use of a 30-day rolling average emission rate.

K. As indicated in 40 CFR §60.49b(g), the owner or operator shall maintain records of the following information for each steam generating unit operating day and it shall be submitted in a report, as required in 40 CFR §60.49b(i).

xi. Calendar date;

xii. The average hourly NOx emission (as NO_2) rates measured;

xiii. The 30-day average NOx emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

xiv. Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emission standard under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

xv. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

xvi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

xvii. Identification of the "F" factor used for calculations, method of determination, and type of fuel combusted;

xviii. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

xix. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

xx. Results of daily CEMS drift tests and quarterly accuracy assessments as required in 40 CFR Appendix F, Procedure 1.

Authority for Requirement: DNR Construction Permit 06-A-343-S11

NSPS Applicability

Emission Unit 37 (Heat Recovery Steam Generator) is subject to 40 CFR Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

Authority for Requirement: DNR Construction Permit 06-A-343-S11
40 CFR 60 Subpart Db
567 IAC 23.1(2)"ccc"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 125
Stack Opening, (inches, dia.): 84
Exhaust Flow Rate (scfm): 83,835
Exhaust Temperature (°F): 309
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-343-S11

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

Monitoring Requirements

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

Continuous Emissions Monitoring:

A. The following requirements shall apply to all CEMS for NSPS emission standards in this permit:
   i. The owner or operator shall demonstrate compliance with the nitrogen oxide emission through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2). The specifications

of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

ii. The 1-hour average NO_X emission rates measured by the NO_X CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).

iii. Per 40 CFR 60.49b(f), when NO_X emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days

iv. The NO_x CEMS shall be operated and data collected as required under 40 CFR §60.48b(c), (d), (e), and (f).

B. The following requirements shall apply to all CEMS for non-NSPS emission standards in this permit:

i. The CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission units associated with EP SV04, except for CEMS breakdowns and repairs. Data is recorded during calibration checks and zero and span adjustments.

ii. The 1-hour average NO_x emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards in this permit. At least two data points must be used to calculate each 1-hour average.

iii. For each hour of missing emission data (NOx), the owner or operator shall substitute data by:

a) If the monitor data availability is equal to or greater than 95.0%, the permittee shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period greater than 24 hours, substitute the greater of:

- The 90^{th} percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or,
- The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

b) If the monitor data availability is at least 90.0% but less than 95.0%, the permittee shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the

following procedures:

(i) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period of more than 8 hours, substitute the greater of:

- The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or,
- The average of the hourly concentration recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

c) If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

C. The applicable requirements in Appendix F to Part 60 – *Quality Assurance Procedures* shall apply to all CEMS used for determination of compliance with the applicable emission limits in this permit, including:

i. The owner or operator shall develop and implement a quality control (QC) program. As a minimum, each QC program shall include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities:
   a) Calibration of the CEMS;
   b) Calibration drift determination and adjustment of the CEMS;
   c) Preventive maintenance of the CEMS (including spare parts inventory);
   d) Data recording, calculations, and reporting;
   e) Accuracy audit procedures including sampling and analysis methods; and,
   f) Program of corrective action for malfunctioning CEMS.

ii. Whenever excessive inaccuracies occur for two consecutive quarters, the owner or operator shall revise the current written procedures or modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.

iii. The owner or operator shall keep on-site a copy of these written procedures and shall make them available for inspection by the Department.

The owner or operator shall conduct a Relative Accuracy Test Audit (RATA) at least once every four calendar quarters and shall submit RATA reports to the Department as indicated in this permit (see General Condition G30).

Pollutant – Nitrogen Oxides (NO_x)
Monitoring Equipment Number- ME-01
Operational Specifications – 40 CFR Part 60
Date of Initial System Calibration and Quality Assurance – 01/08/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – 567 IAC 25.3
DNR Construction Permit 06-A-343-S11

Other Parameters

Pollutant – Oxygen (O_2)
Operational Specifications – 40 CFR Part 60
Date of System Calibration and Quality Assurance – 01/08/2008
Ongoing System Calibration/Quality Assurance – 40 CFR Part 60
Reporting & Record keeping – 40 CFR Part 60
Authority for Requirement – 567 IAC 25.1 (9)
DNR Construction Permit 06-A-343-S11

Stack Testing Requirements:
Pollutant – Volatile Organic Compounds (VOC) [1]
Stack Test to be completed annually[1]
Test Method - 40 CFR 63, Appendix A, Method 320 or 40 CFR 60, or Appendix A, Method 18
Authority for Requirement - DNR Construction Permit 06-A-343-S11

Pollutant – HAP[1] [2]
Stack Test to be completed once annually[1]
Test Method – 40 CFR 63, Appendix A, Method 18 or 40 CFR 60, Appendix A, Method 320
Authority for Requirement – DNR Construction Permit 06-A-343-S11

[1] The owner or operator shall conduct initial compliance testing for the Clean Sugar Production Process (i.e., when ethanol, DDG, MSC Protein, and Clean Sugar production processes are all in operation, with the Clean Sugar production processes at the maximum continuous production rate).
Thereafter, the owner or operator shall conduct annual compliance testing for each of the following operating scenarios: 1) ethanol is being produced at the maximum continuous production rate, the DDGS and MSC Protein dryers are in operation, and the Clean Sugar Production Process is not operating, and 2) ethanol is being produced, the DDGS and MSC Protein dryers and Clean Sugar production processes are all in operation, with the Clean Sugar production processes at the maximum continuous production rate.
The facility shall continue annual compliance testing for the SV04 (ethanol, DDGS, and MSC production), as required under permit 06-A-343-S10, until the Clean Sugar production process is operational and the initial test is completed. Thereafter, the owner or operator shall perform a compliance test for each operating scenario annually.
[2]Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. The specified HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.

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** ☐

The Thermal Oxidizer (CE-04) CAM requirement is satisfied by complying with the requirements in Operational Limits & Reporting/Record keeping Requirements section above.
Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV05

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU38	DDGS Cooling Cyclone	CE05: Baghouse	DDGS	23 tons/hr	06-A-344-S5

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-344-S5
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.2 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-344-S5

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.2 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-344-S5
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 1.51 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-344-S5

Pollutant: Single HAP
Emission Limit(s): 0.21 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-344-S5

Pollutant: Total HAP
Emission Limit(s): 0.69 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-344-S5

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 facility shall inspect and maintain the control equipment according to manufacturer's recommendations.
B. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: DNR Construction Permit 06-A-344-S5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 132
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 28,000
Exhaust Temperature (°F): 90
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-344-S5

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV06

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-39	DDGS Storage	CE-06: Baghouse	DDGS	23 ton/hr	06-A-345-S2
EU-40	DDGS Conveyor		DDGS	1,500 Bushel/hr	
EU-41	Truck Loadout Spout		DDGS	1,500 Bushel/hr	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-345-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.16 lb/hr; 1.06 ton/yr
Authority for Requirement: DNR Construction Permit 06-A-345-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.16 lb/hr; 1.06 ton/yr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-345-S2
567-IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.31 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-345-S2

Pollutant: Acetaldehyde
Emission Limit(s): 0.05 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-345-S2

Pollutant: Single HAP – Except Acetaldehyde
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-345-S2

Pollutant: Total HAP
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-345-S2

Operational Limits & Reporting/Record keeping Requirements

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

A. The owner or operator shall inspect and maintain the control equipment according to manufacturer's recommendations.
B. The owner or operator shall keep records of control equipment inspections and maintenance.
C. The owner or operator shall loadout a maximum of 277,606 tons of DDGS per rolling 12-months.
D. The owner or operator shall track DDGS loadout out at the facility on a monthly basis. Calculate and record the rolling 12-month totals.

Authority for Requirement: DNR Construction Permit 06-A-345-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 13.25
Exhaust Flow Rate (scfm): 2,976
Exhaust Temperature (°F): Ambient
Discharge Style: Unobstructed Vertical
Authority for Requirement: DNR Construction Permit 06-A-345-S2

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV07

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-42	Ethanol Truck Loadout	CE-07: Flare 6.4 MMBtu/hr	Ethanol	36,000 gal/hr	06-A-346-S4
EU-43	Ethanol Rail Loadout	NA	Ethanol	78,000 gal/hr	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-346-S4
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-346-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-346-S4

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: DNR Construction Permit 06-A-346-S4
567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 0.44 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-346-S4

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 31.12 lb/hr; 21.5 ton/yr
Authority for Requirement: DNR Construction Permit 06-A-346-S4

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 2.36 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-346-S4

Pollutant: Total HAP
Emission Limit(s): 1.42 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-346-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 facility shall loadout a maximum of 100.0 million gallons of denatured ethanol per twelve month rolling period on a plantwide basis.
B. The owner or operator shall keep records of the amount of denatured ethanol loaded out on a plantwide basis, and update the twelve month rolling total monthly.
C. All rail loadouts shall be to dedicated tank cars (i.e., no switch loading).
D. All truck loadouts shall have the emissions controlled by the flare.
E. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame in the flare.
F. The flare shall be operated with a flame when emissions are vented to it.
G. The flare shall be a smokeless design.
H. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Flare.
    a. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

Authority for Requirement: DNR Construction Permit 06-A-346-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 25
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 2,691
Exhaust Temperature (°F): 800
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-346-S4

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Compliance Assurance Monitoring (CAM) for Green Plains Shenandoah, LLC
Facility located in Shenandoah IA

EP SV07 – Ethanol Loadout Flare (CE-07)

I. Background

A. Emissions Unit

Description: Ethanol Truck Loading Rack (EU-42)
Facility: Green Plains Shenandoah, LLC
Shenandoah, Iowa

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation #: DNR Construction Permit 06-A-346-S4
VOC Emission Limit: 31.12 lb/hr and 21.5 ton/yr for VOC

C. Control Technology

Control Equipment Number: CE-07
Control Equipment Description: Thermal Oxidation by Flaring

II. Ethanol Loadout Flare (CE07) Monitoring Approach

A. Indicator:
An interlock system that only allows ethanol loadout into truck if a flame is present will be used as the performance indicator.

B. Monitoring Approach:
The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1.

Table 1: Monitoring Approach

I. Indicator	An interlock system that only allows ethanol loadout into truck if a flame is present.
Measurement Approach	Interlock system alarms and lockout of ethanol loading to trucks shall occur if no flame is present. The functionality of the interlock system will be checked once a week and visual confirmation of flame presence shall occur each day that ethanol is loaded out to trucks.
II. Indicator Range	The facility will utilize automatic systems, safety devices, and visual confirmation to verify that a flame is present to ensure the control of emissions. No range is required.
Correction Action	Each excursion triggers an inspection, corrective action, and a reporting requirement.
QIP Threshold	Six or more excursions (malfunction of interlock system) in a reporting period.
III. Performance Criteria	
A. Data Representativeness	Ethanol loadout and the associated interlock system will be operated and monitored by qualified, trained individuals.
III. Performance Criteria (continued)	
B. Verification of Operational Status	Use of facility computer system to verify interlock system is functioning properly
C. QA/QC Practices and Criteria	Calibrate, maintain, and operate any required instrumentation in accordance with manufacturer's recommendation.
D. Monitoring Frequency and Data Collection Procedures	Functionality of the interlock system will be checked once a week. Records of the functionality check shall be recorded upon occurrence.
Averaging Period	NA.
E. Record Keeping	Maintain records of functionality check, and corrective actions taken in response to excursions, for a period of 5 years.
F. Reporting	Number, duration and cause of any excursion and the corrective action taken.
Frequency	Semiannually.

Emission Point ID Number: EP-SV09

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU45	Emergency Diesel Fire Pump	Diesel	110 BHP	06-A-348-S1

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-348-S1
567 IAC 23.3(2)"d"

[(1)]An exceedance of the indicator opacity of "20%" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-348-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-348-S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.23 lb/hr; 2.5 lb/MMBtu
Authority for Requirement: DNR Construction Permit 06-A-348-S1
567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 1.89 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-348-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.27 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-348-S1

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 0.90 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-348-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. This unit shall operate a maximum of 500 hours per twelve month rolling period.
B. This unit shall combust diesel with a maximum sulfur content of 0.05% by weight.
C. The owner or operator shall keep records of the amount of time the unit is operated, and update the twelve month rolling total on a monthly basis.
D. The owner or operator shall keep records from the fuel supplier documenting the sulfur content of the diesel.

Authority for Requirement: DNR Construction Permit 06-A-348-S1

NESHAP Subpart ZZZZ Requirements:

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

According to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart IIII for compression ignition engines. No further requirements apply for this engine under Part 63.

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

NSPS Subpart IIII Requirements

Emission Standards:

According to 40 CFR 60.4205(c) and Table 4 to Subpart IIII, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

NMHC + NOx	CO	PM
10.5 (7.8)	5.0 (3.7)	0.80 (0.60)

Fuel Requirements:

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

Compliance Requirements:

1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
    a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;

b) Changing only those emission-related settings that are permitted by the manufacturer; and
c) Meeting the requirements of 40 CFR 89, 94 and/or 1068, as they apply to you.

2. You must demonstrate compliance with the applicable emission standards according to one of the following methods. 40 CFR 60.4211(b).
   a) Purchasing an engine certified according to 40 CFR 89 or 40 CFR 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
   b) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in Subpart IIII and these methods must have been followed correctly.
   c) Keeping records of engine manufacturer data indicating compliance with the standards.
   d) Keeping records of control device vendor data indicating compliance with the standards.
   e) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.
3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Initial Test	Subsequent Test
Within 1 year of engine startup, or non-permitted action [(1)]	Not required

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

Operating and Recordkeeping Requirements

1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 40.4209(a)).
2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

Authority for Requirement: 40 CFR Part 60 Subpart IIII
567 IAC 23.1(2)"yyy"

Emission Point Characteristics

The emission point shall conform to the specifications listed below.
Stack Height, (ft, from the ground): 13
Stack Opening, (inches, dia.): 4
Exhaust Flow Rate (scfm): 187
Exhaust Temperature (°F): 1,108
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-348-S1

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV10

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-24	Liquefaction Tank #1	Mash	64,700 gallons	12-A-035-S2
EU-25	Liquefaction Tank #2	Mash	64,700 gallons	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permit 12-A-035-S2
567 IAC 23.3(2)"d"

(1) If visible emissions are observed the owner or operator is required to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 12-A-035-S2
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 5.28 lb/hr
Authority for Requirement: DNR Construction Permit 12-A-035-S2

Pollutant: Single HAP
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 12-A-035-S2

Pollutant: Total HAPs
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 12-A-035-S2

Operational Limits & Reporting/Record keeping Requirements

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

Operational limits are not required at this time.

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

Stack Height, (ft, from the ground): 39
Stack Opening, (inches, dia.): 8
Exhaust Flow Rate (scfm): 17
Exhaust Temperature (°F): 180
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 12-A-035-S2

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV11

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-46	Grain Bin #3	CE-11: Cartridge Filter	Corn	250,000 Bushels	16-A-170-S1
EU-48	Fill Conveyor #3		Corn	30,000 Bushels/hr	

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permit 16-A-170-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 1.29 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-170-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.29 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-170-S1
567 IAC 23.4(7)

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 grain bin shall be filled only while under negative pressure and vented to the control equipment.
B. The owner or operator shall operate, inspect, and maintain all the equipment associated with the process and the Cartridge Filters (CE-11) according with good air pollution control practices and manufacture's specifications.
    i. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection or maintenance of the Cartridge Filters (CE-11).

C. A maximum of 35.1 million bushels of corn per twelve month rolling period may be received plantwide.
    i. The owner or operator shall keep records of the amount of corn received, and update the twelve month rolling total on a monthly basis.

Authority for Requirement: DNR Construction Permit 16-A-170-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 107
Stack Opening, (inches): 15.6 X 16.94
Exhaust Flow Rate (scfm): 1,500
Exhaust Temperature (°F): Ambient
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 16-A-170-S1

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV12

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-52	Natural Gas Boiler #2	Natural Gas	75.3 MMBtu/hr 73,824 cf natural gas	16-A-341

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permit 16-A-341
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 corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.0 lb/hr; 0.6 lb/MMBtu
Authority for Requirement: DNR Construction Permit 16-A-341
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppm
Authority for Requirement: DNR Construction Permit 16-A-341
567 IAC 23.3(3)"e"

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 Natural Gas Boiler #2 (EU-52) shall only use natural gas as a fuel.
B. The owner or operator shall comply with the applicable requirements in 40 CFR Part 60, Subpart Dc [§60.40c - §60.48c], including those not specifically mentioned in this permit.
    i. The owner or operator shall comply with the reporting and recordkeeping requirements as outlined in 40 CFR §60.48c, including, but not limited to the following:
        1. Per 40 CFR §60.48c(g)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each operating day; or
        2. Per 40 CFR §60.48c(g)(2), record and maintain records of the amount of each

fuel combusted during each calendar month; or

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

Authority for Requirement: DNR Construction Permit 16-A-341
40 CFR Part 60 Subpart Dc
567 IAC 23.1(2)"lll"

NSPS Subpart Dc Requirements
This emission unit is subject to 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial – Commercial - Institutional Steam Generating Units

NSPS Dc, Section 60.48c(g)(1) requires that the permittee record and maintain records of the amount of each fuel combusted during each day. However, because the unit is restricted to burning only natural gas, in accordance with section 60.48c(g)(2), the fuel recordkeeping is reduced from daily to monthly.

Authority for Requirement: DNR Construction Permit 16-A-341
40 CFR Part 60 Subpart Dc
567 IAC 23.1(2)"lll"

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

Stack Height, (ft, from the ground): 65
Stack Opening, (inches): 36
Exhaust Flow Rate (scfm): 14,100
Exhaust Temperature (°F): 305
Discharge Style: Vertical, unobstructed
Authority for Requirement: DNR Construction Permit 16-A-341

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV13A

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-60	Protein Dryer-Start-up stack – NG combustion exhaust	Natural Gas	62 MMBtu/hr 8 tons/hr	18-A-428

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: DNR Construction Permit 18-A-428
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 corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM10)
Emission Limit(s): 0.55 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-428

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.55 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 18-A-428
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.04 lb/hr; 500 ppm_v
Authority for Requirement: DNR Construction Permit 18-A-428
567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 7.3 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-428

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 18.1 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-428

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.40 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-428

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit(s): 0.011 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-428

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit(s): 0.011 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-428

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 facility is allowed to operate the start-up stack, EP SV13A, no more than 250 hours in any rolling 12-month period.
B. The owner or operator shall maintain monthly records of EP SV13A operation. The owner or operator shall calculate and record the rolling 12-month totals.
C. The facility shall not route protein to the protein dryer when the protein dryer exhaust is venting through EP SV13A.

Authority for Requirement: DNR Construction Permit 18-A-428

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 75
Stack Opening, (inches): 48
Exhaust Flow Rate (scfm): 45,200
Exhaust Temperature (°F): 340
Discharge Style: vertical, unobstructed
Authority for Requirement: DNR Construction Permit 18-A-428

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV15

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU62	Protein Storage Silo #1	CE13: Baghouse	Protein	Loading rate: 120 tons per hour Storage capacity: 600 tons	18-A-430-S4
EU63	Protein Storage Silo #2		Protein	Loading rate: 120 tons per hour Storage capacity: 600 tons	
EU64	Protein Loadout System		Protein	120 tons per hour(1)	

(1) The process design capacity is 88 tons/hr based on a loadout rate of 22 tons per truck and a maximum of 4 trucks per hour.

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: DNR Construction Permit 18-A-430-S4
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.49 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-430-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.49 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 18-A-430-S4
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.31 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-430-S4

Pollutant: Acetaldehyde
Emission Limit(s): 0.05 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-430-S4

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit(s): 0.10 lb/hr[(2)]
Authority for Requirement: DNR Construction Permit 18-A-430-S4
[(2)]The specific Individual HAP are acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately and does not represent the sum of these HAPs.

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 18-A-430-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 maintain the Baghouse (CE13) according to the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the Baghouse (CE13). This log shall include, but is not necessarily limited to:
    i. The date and time any inspection and/or maintenance was performed on the Baghouse (CE13);
    ii. Any issues identified during the inspection and the date each issue was resolved;
    iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and
    iv. Identification of the staff member performing the maintenance or inspection.
B. The Baghouse (CE13) differential pressure drop shall be maintained between 0.5 to 3.5 inches water column.
    i. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
    ii. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. If the pressure drop across the baghouse falls outside the range specified in Condition B., the owner or operator shall investigate the baghouse and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse is not in operation.
C. The owner or operator shall loadout a maximum of 52,560 tons of protein per rolling 12-months. On a monthly basis, the owner or operator shall:
    i. Record the total amount of protein loaded out at the facility, in tons; and
    ii. Calculate and record the rolling 12-month total amount of protein loaded out at the facility, in tons.

Authority for Requirement: DNR Construction Permit 18-A-430-S4

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

Stack Height, (ft, from the ground): 107
Stack Opening, (inches): 24
Exhaust Flow Rate (scfm): 22,700
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, unobstructed
Authority for Requirement: DNR Construction Permit 18-A-430-S4

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV16

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU61	Protein Cooling System	CE14: Baghouse	Protein	8 ton/hr	20-A-112

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permit 20-A-112
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 corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.0 lb/hr
Authority for Requirement: DNR Construction Permit 20-A-112

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.08 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 20-A-112
567 IAC 23.4(7)

Pollutant: Acetaldehyde
Emission Limit(s): 0.13 lb/hr
Authority for Requirement: DNR Construction Permit 20-A-112

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit(s): 0.15 lb/hr
Authority for Requirement: DNR Construction Permit 20-A-112

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit(s): 0.34 lb/hr
Authority for Requirement: DNR Construction Permit 20-A-112

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 maintain the Baghouse (CE14) according to the manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a log of all maintenance and inspection activities performed on the Baghouse (CE14). This log shall include, but is not necessarily limited to:
   i. The date and time any inspection and/or maintenance was performed on the Baghouse (CE14);
   ii. Any issues identified during the inspection and the date each issue was resolved;
   iii. Any issues addressed during the maintenance activities and the date each issue was resolved; and
   iv. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 20-A-112

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 130
Stack Opening, (inches): 24
Exhaust Flow Rate (scfm): 18,690
Exhaust Temperature (°F): 105
Discharge Style: vertical, unobstructed
Authority for Requirement: DNR Construction Permit 20-A-112

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-SV19

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-85	Cooling Tower	CE16: Mist Eliminator	Water	5,000 gal/min	22-A-419

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: DNR Construction Permit 22-A-419
567 IAC 23.3(2)"d"

[(1)] If visible emissions are observed the owner or operator is required 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): 0.31 lb/hr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 22-A-419
567 IAC 23.3(2)"b"

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, inspect, and maintain the equipment covered under this permit 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 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;
      (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 Mist Eliminator shall be designed to meet a total drift loss factor of 0.005% (percent of drift per gallon of cooling water flow) or better.
   (1) The owner or operator shall retain a copy of the manufacture's specifications indicating the total drift loss factor.
C. The total dissolved solids (TDS) of the water used in the cooling tower shall not exceed 2,500 parts per million (ppm) by weight (monthly average).

(1) The owner or operator shall sample the TDS concentration in the circulating water for the cooling tower at least once per month using an industry standard sampling method or procedure.
(2) The owner or operator shall maintain the following records for each TDS sampling:
(a) Test results in parts per million based on weight;
(b) Date of each measurement; and
(c) The method used to obtain each measurement.
(d) The monthly average in parts per million based on weight.

D. The owner or operator shall not use chromium based or VOC or HAP containing water treatment chemicals (i.e. biocides, fungicides, scale inhibitors, etc.) in this emission unit.
(1) The owner or operator shall retain a copy of the Safety Data Sheet (SDS) for each water treatment chemical used in this emission unit.

Authority for Requirement: DNR Construction Permit 22-A-419

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 30
Stack Opening, (inches, dia.): 168
Exhaust Flow Rate (scfm): 297,939
Exhaust Temperature (°F): 96
Discharge Style: Vertical
Authority for Requirement: DNR Construction Permit 22-A-419

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-FS001

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-FS001	Paved and Unpaved Plant Roads	Traffic Emissions	NA	06-A-351-S4

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit: The owner or operator 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
Authority for Requirement: DNR construction Permit 06-A-351-S4
567 IAC 23.3(2)"c"(1)

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 6.1 ton/yr
Authority for Requirement: DNR Construction Permit 06A-351-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 24.2 ton/yr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06A-351-S4
567 IAC 23.3(2)"b"

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 do the following related to the use of facility paved roads:
   i. Track the number of trucks that arrive on a monthly basis not using the temporary grain pile.
   ii. Sweeping is required to be completed at least once per calendar month.
   iii. Test a representative road for silt load at least once every calendar quarter (four tests per calendar year). Silt load testing shall not be completed within at least one week of sweeping.
B. The owner or operator shall keep the following records related to the use of facility paved roads:
   i. Record the number of trucks that arrive on a monthly basis not using the temporary grain pile.
   ii. Maintain a record of facility paved road sweeping.

iii. Maintain a record of representative road silt load test data.

C. The owner or operator shall calculate and record the monthly paved road fugitive dust emissions according to the following formula, equation 1 from AP-42 Section 13.2.1.

i. PM10 emission rate is calculated using the following equation which assumes a mean vehicle weight of 29 tons, 1.2 vehicle miles traveled per truck, and 100 days of annual precipitation >0.01 inches.

$$E = 3.81 \times 10^{-5} \times V \times (sL)^{0.91}$$

Where E = tons PM10/month

V = number of trucks using paved roads for that month,

sL = surface silt loading in g/m2 from that quarter's test result

D. The owner or operator shall track and record the number of trucks that use the facility's unpaved roads, on a monthly basis.

E. The owner or operator shall use the unpaved road segment only for activities related to moving grain to and from the temporary grain pile. Silt content sampling of the unpaved road surface shall be conducted at least once each calendar year during which grain is delivered to or removed from the temporary grain pile. This sampling shall be performed during the period of time of operation of the temporary grain pile. If the temporary grain pile is used for more than 3 months during any calendar year, samples shall be taken at least once every 3 months with a maximum of two samples per calendar year. After a minimum of 4 samples are analyzed, if the variability between the samples is less than 25%, then no additional sampling is required. If the variability of the samples is greater than 25%, then sampling shall be continued until a total of 8 samples have been obtained. After 8 samples have been obtained and analyzed, no additional sampling would be required. Silt content testing shall be conducted according to the procedures outlined in AP-42, Appendix C.1 Procedures for Sampling Surface/Bulk Dust Loading and C.2 Procedures for Laboratory Analysis of Surface/Bulk Dust Loading Samples.

F. The owner or operator shall maintain a log for the unpaved haul road silt loading sampling showing the following:

i. The date and time of the performance testing;

ii. The silt load of the road for that month based on testing; and

iii. The silt loading percentage (%) based on the performance testing.

G. The owner or operator shall calculate and record the monthly unpaved roads fugitive dust emissions according to the following formula, equation 1a from AP-42 Section 13.2.2.

i. PM10 emission rate is calculated using the following equation assuming silt content of 8.5%, 0.36 vehicle miles traveled per truck, a mean vehicle weight of 29 tons, and 100 days of annual precipitation >0.01 inches.

$$E = 3.63 \times 10^{-4} \times V \times (s/12)^{0.9}$$

Where E = tons PM10/month, and

V = number of trucks using unpaved roads for that month, and

s = average road surface material silt content percentage (%) based on silt content performance tests

H. The owner or operator shall update monthly the twelve month rolling total PM10 emissions by adding up the calculated monthly emissions for the previous twelve months. The owner or operator shall immediately notify the IDNR if the twelve month rolling PM10 total exceeds 6.1 tons.

Authority for Requirement: DNR Construction Permit 06-A-351-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 22.108(3)

Emission Point ID Number: EP-FS002, EP-FS003, EP-FS004

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-FS002	Grain Receiving Uncaptured	Corn	NA	NA
EU-FS003	DDGS Loadout Uncaptured	DDGS	NA	NA
EU-FS004	DDGS Storage Uncaptured	DDGS	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: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

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

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.

There are no applicable operating requirements at this time.

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-FS005

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-FS005	Cooling Tower (4 Cells)	Cooling Water	27,000 gal/min, drift loss of 0.005%	06-A-349

Applicable Requirements

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

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 7.40 ton/yr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-349
567 IAC 23.3(2)"b"

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) level shall not exceed 2,500 mg/l for any single sampling event.
B. The owner or operator shall test TDS on a monthly basis.
C. The owner or operator shall keep records of the results of the monthly TDS testing available.

Authority for Requirement: DNR Construction Permit 06-A-349

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: FS006

Associated Equipment

EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-FS006	VOC Emission from Equipment Leaks	CE-FS006: Leak Detection and Repair	VOC Leaks	NA	06-A-350-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 (VOC)
Emission Limit(s): 8.22 ton/yr
Authority for Requirement: DNR Construction Permit 06-A-350-S4

Pollutant: Single HAP
Emission Limit(s): 0.01 ton/yr
Authority for Requirement: DNR Construction Permit 06-A-350-S4

Pollutant: Total HAP
Emission Limit(s): 0.04 ton/yr
Authority for Requirement: DNR Construction Permit 06-A-350-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.
    i. The owner or operator shall comply with the applicable recordkeeping and reporting requirements in §60.486a and §60.487a, respectively.
B. The owner or operator shall document on an annual basis the number and types of components used. Components include, but are not limited to, valves, pumps, compressor seals, flanges, etc.
C. The owner or operator shall calculate and record on an annual basis the facility's VOC emissions, in tons, using the documented component count and the calculation methods outlined in EPA's document 453/R-95-017 titled *Protocol for Equipment Leak Emission Estimates* (Pages 2-10 through 2-38).

D. The owner or operator shall calculate and record on an annual basis the facility's HAP emissions, in tons, using the HAP or VOC ratio determined using the potential-to-emit from the regulated process streams multiplied by the VOC emissions calculated in Condition C above.

Authority for Requirement: DNR Construction Permit 06-A-350-S4
40 CFR Part 60 Subpart VVa
567 IAC 23.1(2)"nn"

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-TK001 & EP-TK002

Associated Equipment

EP	EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity (gallons)	Construction Permit
EP-TK001	EU-TK001	190 Proof Ethanol Storage Tank	CE-TK001: Internal Floating Roof	190 Proof Ethanol	165,000	06-A-352-S1
EP-TK002	EU-TK002	200 Proof Ethanol Storage Tank	CE-TK002: Internal Floating Roof	200 Proof Ethanol	165,000	06-A-353-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 limits are not required 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.

Operational limits are not required at this time.

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

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working and breathing loss
Exhaust Temperature (°F): Ambient (70)
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 06-A-352-S1, 06-A-353-S1

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-TK003

Associated Equipment

EP	EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity (gallons)	Construction Permit
EP-TK003	EU-TK003	Denaturant Storage Tank	CE-TK001: Internal Floating Roof	Denaturant	165,000	06-A-354-S1

Applicable Requirements

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

Emission limits are not required 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 storage tank shall be limited to storing denaturant only.
B. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
C. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR §60.115b through §60.116b.

Authority for Requirement: DNR Construction Permit 06-A-354-S1

NSPS Subpart Kb Applicability
This emission unit is subject to NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

40 CFR 60.115b Reporting and Recordkeeping Requirements

(a) After installing control equipment in accordance with 60.112b(a)(1), (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
    1. Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).
    2. Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which

the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

3. If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
4. After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

40 CFR § 60.116b Monitoring of Operations

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m3 is subject to no provision of this subpart other than those required by this paragraph.
(c) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
(d) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined in 60.116b paragraph (e)

Authority for Requirement: DNR Construction Permit 06-A-354-S1
40 CFR Subpart Kb
567 IAC 23.1(2)”ddd”

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

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working and breathing loss
Exhaust Temperature (°F): Ambient (70)
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 06-A-354-S1

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: EP-TK004 and EP-TK005

Associated Equipment

EP	EU	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity (gallons)	Construction Permit
EP-TK004	EU-TK004	Denatured Ethanol Storage Tank	CE-TK004: Internal Floating Roof	Denatured Ethanol	750,000	06-A-355-S1
EP-TK005	EU-TK005	Denatured Ethanol Storage Tank	CE-TK005: Internal Floating Roof	Denatured Ethanol	750,000	06-A-356-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 limits are not required at this time.

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

A. The storage tank shall be limited to storing denatured ethanol only.
B. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.
C. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR 60.115b through 60.116b.

Authority for Requirement: DNR Construction Permits 06-A-355-S1; 06-A-356-S1

NSPS Subpart Kb Applicability
These emission units are subject to NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

40 CFR 60.115b Reporting and Recordkeeping Requirements
(a) After installing control equipment in accordance with 60.112b(a)(1), (fixed roof and internal foaling roof), the owner or operator shall meet the following requirements.
    1. Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

2. Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
3. If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
4. After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

<u>40 CFR § 60.116b Monitoring of Operations</u>

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m3 is subject to no provision of this subpart other than those required by this paragraph.
(c) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
(d) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined in 60.116b paragraph (e)

Authority for Requirement: DNR Construction Permits 06-A-355-S1; 06-A-356-S1
40 CFR 60 Subpart Kb
567 IAC 23.1(2)"ddd"

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

Stack Height, (ft, from the ground): 54
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working and breathing loss
Exhaust Temperature (°F): Ambient (70)
Discharge Style: Downward
Authority for Requirement: DNR Construction Permits 06-A-355-S1; 06-A-356-S1

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

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: T-EIA01

Associated Equipment

EU	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
T-EIA01	Gasoline Storage Tank	Gasoline	150 gallons	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.

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.

NESHAP CCCCCC Requirements:
This unit is subject to 40 CFR 63 Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. According to 40 CFR 63.11112(d), this storage tank, located at an area source, is an existing storage tank as it was constructed prior to November 9, 2016

§63.11115 What are my general duties to minimize emissions?
Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
b) You must keep applicable records as specified in §63.11125(d).

§63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline(1).

a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
    1. Minimize gasoline spills;
    2. Clean up spills as expeditiously as practicable;
    3. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

4. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

b) You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.

d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

§63.11125 What are my recordkeeping requirements?

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[(1)]Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permits, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable

inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges
Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:
1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information
The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties
The owner or operator of any air emission source or control equipment shall:
1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring
1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
    a. The date, place and time of sampling or measurements
    b. The date the analyses were performed.
    c. The company or entity that performed the analyses.
    d. The analytical techniques or methods used.
    e. The results of such analyses; and
    f. The operating conditions as existing at the time of sampling or measurement.
    g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

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

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

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

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;

b. Compliance test methods specified in 567 Chapter 25; or

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

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

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

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

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

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a

violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

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

ii. The estimated quantity of the excess emission.

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

iv. The cause of the excess emission.

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

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

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

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

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

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

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

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

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

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

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

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.

b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);

c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);

d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));.

e. The changes comply with all applicable requirements.

f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,

ii. The date on which the change will occur,

iii. Any change in emission as a result of that change,

iv. The pollutants emitted subject to the emissions trade

v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that does any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Title V Permit Modification.

a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:

i. Do not violate any applicable requirement;

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;

iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

ii. The permittee's suggested draft permit;
iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.111-567 IAC 22.113*

G19. Duty to Obtain Construction Permits

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

G20. Asbestos

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

G21. Open Burning

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 <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 22.108(7)*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

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

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

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

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit; or

b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.
Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-9545

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.
567 IAC 25.1(7)"a", 567 IAC 25.1(9)

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

G32. Contacts List

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

Chief of Air Permits
U.S. EPA Region 7
Air Permits and Compliance Branch
11201 Renner Blvd.
Lenexa, KS 66219
(913) 551-7020

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

Chief, Air Quality Bureau
Iowa Department of Natural Resources
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-8200

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

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

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

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

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

Field Office 5
7900 Hickman Road, Suite #200
Windsor Heights, IA 50324
(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: Links to Standards

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

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

C. 40 CFR Part 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

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

E. 40 CFR Part 60 Subpart VVa –Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-VVa

F. 40 CFR Part 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

G. 40 CFR Part 63 Subpart A – General Provisions
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-A

H. 40 CFR Part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP)
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ

I. 40 CFR Part 63 Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-CCCCCC