Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Pinnacle Ethanol, dba POET Biorefining - Corning
Facility Location: 1680 Brooks Road, Corning, IA 50841
Air Quality Operating Permit Number: 14-TV-007R2 Draft
Expiration Date:
Permit Renewal Application Deadline:

EIQ Number: 92-6966
Facility File Number: 02-05-001

Responsible Official
Name: Mr. Scott Sawtelle
Title: General Manager
Mailing Address: 1680 Brooks Road, Corning, IA 50841
Phone #: 641-322-6401 - Email: scott.sawtelle@poet.com

Permit Contact Person for the Facility
Name: Mr. Dustin Hunt
Title: EHS Specialist
Mailing Address: 1680 Brooks Road, Corning, IA 50841
Phone #: 641-322-5193 - Email: dustin.hunt@poet.com

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

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
DDGS.....distillers dried grains with solubles
^{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
IDNR.....Iowa Department of Natural Resources
kW.....kilowatts
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS.....new source performance standard
ppmv .....parts per million by volume
lb./hr.....pounds per hour
lb./MMBtu .....pounds per million British thermal units
SCC.....Source Classification Codes
scfm.....standard cubic feet per minute
SIC .....Standard Industrial Classification
tpy .....tons per year
USEPA.....United States Environmental Protection Agency

Pollutants
PM.....particulate matter
PM_{10} .....particulate matter ten microns or less in diameter
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: POET Biorefining - Corning
Permit Number: 14-TV-007R2 Draft

Facility Description: Industrial Organic Chemicals, NEC (SIC 2869)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
SV1	EU1	3 Corn Receiving Pits (truck and rail)	06-A-144-S3
	EU2	Elevator	
	EU3	Grain Storage	
SV23	EU28	Two Grain Storage Bins	16-A-016-S1
	EU29	Feed Conveyor	
SV24	EU28	Two Grain Storage Bins	16-A-017-S1
	EU29	Feed Conveyor	
SV25	EU28	Two Grain Storage Bins	16-A-018-S1
	EU29	Feed Conveyor	
SV2	EU4	Corn Scalper, Conveyor, Surge Bin	06-A-145-S1
SV3	EU5	Hammermill #1	06-A-146-S2
SV4	EU6	Hammermill #2	06-A-147-S2
SV5	EU7	Hammermill #3	06-A-148-S2
SV6	EU8	Hammermill #4	06-A-149-S2
SV7	EU9	Hammermill #5	06-A-150-S2
SV8	EU10	Mash Fermentation and Beer Well	06-A-151-S6
	EU11	Distillation Process	
SV9	EU10	Mash Fermentation and Beer Well	06-A-152-S7
	EU11	Distillation Process	
	EU12	DDGS Dryer #1	
	EU13	DDGS Dryer #2	
	EU15	Centrifuge #1	
	EU16	Centrifuge #2	
	EU17	Centrifuge #3	
	EU18	Centrifuge #4	
	EU15	Centrifuge #1	
	EU16	Centrifuge #2	
	EU17	Centrifuge #3	
	EU18	Centrifuge #4	
SV10	EU19	DDGS Fluid Bed Cooler	06-A-153-S2
SV11	EU20	DDGS Storage Silo	06-A-154-S1
SV12	EU21	DDGS Storage Silo Bypass	06-A-155-S1
SV13	EU22	Boiler #1	06-A-156-S2

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
SV14	EU23	Boiler #2	06-A-157-S2
SV15	EUTK-001	190-Proof Ethanol Storage Tank	06-A-158-S2
SV16	EUTK-002	200-Proof Ethanol Storage Tank	06-A-159-S2
SV17	EUTK-003	200-Proof Denatured Ethanol Storage Tank	06-A-160-S3
SV18	EUTK-004	200-Proof Denatured Ethanol Storage Tank	06-A-161-S3
SV19	EUTK-005	Denaturant Storage Tank	06-A-162-S3
SV20	EU24	Diesel Generator	06-A-163-S1
SV21	EU25a	Truck and Rail Loadout	06-A-164-S5
FS1	FS1	Haul Roads	06-A-165-S2
FS2	FS2	Cooling Tower	06-A-166-S2
FS3	FS3	Fugitive Emissions from Equipment Leaks	06-A-167-S4
FS4	FS4	Grain and DDGS Fugitives	N/A

Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU26	Corn Oil Extraction System (2 centrifuges and 5 process tanks)
EU27	Corn Oil Storage Tanks (2), 30,000 gallons each (0.000305 psia)
FS5	Wet Cake Production

II. Plant-Wide Conditions

Facility Name: POET Biorefining - Corning
Permit Number: 14-TV-007R2

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

Permit Duration

The term of this permit is: 5 years
Commencing on:
Ending on:

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

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

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

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

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

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

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

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

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

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40 CFR 60 Subpart A Requirements

This facility is an affected source and these *General Provisions* apply to the facility. The affected units are EP SV8, EP SV9, EP SV13, EP SV14, EP SV15, EP SV16, EP SV17, EP SV18, EP SV19, EP SV 20, EP SV21, EP FS3, SV23, SV24 and SV25.
See Appendix for a link to the Standard.
Applicable requirements are incorporated in the Emission Point Specific conditions.
Authority for Requirements: 40 CFR 60 Subpart A
567 IAC 23.1(2)

40 CFR 60 Subpart DD Requirements
This facility is subject to the Standard of Performance for Grain Elevators (40 CFR §60.300 – §60.304; 567 IAC 23.1(2)"ooo"). The affected units are SV23, SV24 and SV25.
Authority for Requirements: 40 CFR 60 Subpart DD
567 IAC 23.1(2)"ooo"

40 CFR 60 Subpart Db Requirements
This facility is subject to Standards of Performance for *Industrial – Commercial - Institutional Steam Generating Units.* The affected units are EP SV13 and EP SV14.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart Db
567 IAC 23.1(2) "ccc"

40 CFR 60 Subpart Kb Requirements
This facility is subject to Standards of Performance for *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)* for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. The affected units are EP SV15, EP SV16, EP SV17, EP SV18, and EP SV19.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart Kb
567 IAC 23.1(2) "ddd"

40 CFR 60 Subpart VVa Requirements
This facility is subject to Standards of Performance for *Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. The affected units are EP SV8, EP SV9, EP SV15, EP SV16, EP SV17, EP SV18, EP SV19, EP SV21, and EP FS3.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR 60 Subpart VVa
567 IAC 23.1(2) "nn"

40 CFR 63 Subpart ZZZZ Requirements
This facility is subject to National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines* (RICE NESHAP). The affected unit is EP SV20.
See Appendix for a link to the Standard.
Authority for Requirements: 40 CFR 63 Subpart ZZZZ
567 IAC 23.1(4) "cz"

40 CFR 63 Subpart BBBBBB Requirements
This facility is subject to National Emission Standard for Hazardous Air Pollutants for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. The affected units are EP SV21and EP FS3.
See Appendix for the link to the Standard.
Applicable requirements are incorporated in the Emission Point Specific conditions.
Authority for Requirements: 40 CFR 63 Subpart BBBBBB
567 IAC 23.1(4) "eb"

III. Emission Point-Specific Conditions

Facility Name: POET Biorefining - Corning
Permit Number: 14-TV-007R2 Draft

Emission Point ID Number: SV1

Associated Equipment

Associated Emission Unit ID Numbers: EU1, EU2, EU3
Emissions Control Equipment ID Number: CS1
Emissions Control Equipment Description: Baghouse

Emission Unit (Emission Unit ID)	Maximum Rated Capacity	Raw Material
EU 1: Grain Receiving (truck and rail)	840 TPH ; Annual – 37.449 Million Bushels/yr	Grain
EU 2: Elevator	840 TPH ; Annual – 37.449 Million Bushels/yr	
EU 3: 4 Grain Bins; Each 335,319 Bushels	840 TPH ; Annual – 37.449 Million Bushels/yr	
DDGS Loadout	160 tons 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 06-A-144-S3
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.60 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-144-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.60 lb/hr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-144-S3
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limits: 1.29 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-144-S3

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limits: 0.054 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-144-S3

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limits: 0.27 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-144-S3

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The maximum amount of grain received at POET Biorefining-Corning shall not exceed 37.449 million bushels of grain per rolling 12-month period.
    i. Record on a monthly basis, the amount of grain received at POET Biorefining-Corning in bushels. Calculate and record rolling 12-month totals.
B. The maximum amount of DDGS loaded out at POET Biorefining-Corning shall not exceed 305,000 tons per rolling 12-month period.
    i. Record on a monthly basis, the amount of DDGS loaded out at POET Biorefining-Corning in tons. Calculate and record rolling 12-month totals.
C. Maintain Baghouse (CS1) according to manufacturer specifications and maintenance schedule.
    i. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Baghouse (CS1).
D. A minimum of 90% of the total trucks delivering grains shall be hopper trucks per rolling 12-month period. 10% of the grain delivery trucks can be straight trucks.
    i. The owner or operator shall maintain records or the type of trucks delivering grains at the facility on a rolling 12-month basis.
    ii. The owner or operator shall maintain records on percentage of type of trucks delivering grains at the facility on a rolling 12-month basis.

E. The grain receiving building shall be an enclosed four sided roofed structure with four entrances and four exit doors.
   i. The owner or operator shall minimize dust emissions from the grain receiving building by keeping the entrance doors of the truck lanes closed during grain delivery.
   ii. The owner or operator shall minimize dust emissions from the grain receiving building by keeping the rail lane entrance door closed during grain delivery, unless a rail car is located in the doorway.

Authority for Requirement: DNR Construction Permit 06-A-144-S3

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

Stack Height (ft, from the ground): 105
Stack Opening (inches, dia.): 36
Exhaust Flow Rate (scfm): 23,450
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Obstructed
Authority for Requirement: DNR Construction Permit 06-A-144-S3

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

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

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

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

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

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 24.108(3)

Emission Point ID Number: SV23, SV24 & SV25

Associated Equipment

Associated Emission Unit ID Numbers: EU28 & EU29
Emissions Control Equipment ID Number: CE CS15, CS16 & CS17
Emissions Control Equipment Description: Cartridge Filters

Emission Unit vented through this Emission Point: EU28 & EU29
Emission Unit Description: Two (2) Grain Storage Bins & Feed Conveyor
Raw Material/Fuel: Grain
Rated Capacity: Bins; 683,855 bushels each, Conveyor: 30,000 bu/hr

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permit 16-A-016-S1, 16-A-017-S1, 16-A-018-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.05 lb/hr
Authority for Requirement: DNR Construction Permit 16-A-016-S1, 16-A-017-S1, 16-A-018-S1

Pollutant: Particulate Matter (PM) - Federal
Emission Limit(s): 0.01 gr/dscf
Authority for Requirement: 567 IAC 23.1(2)"ooo"

Pollutant: Particulate Matter (PM) - State
Emission Limit(s): 0.05 lb/hr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 16-A-016-S1, 16-A-017-S1, 16-A-018-S1
567 IAC 23.4(7)

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

Federal Standards

New Source Performance Standards (NSPS):

This equipment is subject to the New Source Performance Standard (NSPS) Subpart DD: Grain Elevators (40 CFR §60.300 – §60.304; 567 IAC 23.1(2)"ooo") and Subpart A: General Provisions (40 CFR §60.1 – §60.19).

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The owner or operator shall maintain the Cartridge Filters (CS15, CS16 & CS17) according to the manufacturer's specifications and maintenance schedule.
B. A log of all maintenance and inspection activities performed on the Cartridge Filters (CS15, CS16 & CS17). This log shall include, but is not necessarily limited to:
    a. The date and time any inspection and/or maintenance was performed on the Cartridge Filters (CS15, CS16 & CS17);
    b. Any issues identified during the inspection and the date each issue was resolved;
    c. Any issues addressed during the maintenance activities and the date each issue was resolved; and
    d. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 16-A-016-S1, 16-A-017-S1, 16-A-018-S1

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

Stack Height (ft, from the ground): 125
Stack Opening (inches, dia.): 6
Exhaust Flow Rate (scfm): 1,200
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Obstructed
Authority for Requirement: DNR Construction Permit 16-A-016-S1, 16-A-017-S1, 16-A-018-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 24.108(3)

Emission Point ID Number: SV2

Associated Equipment

Associated Emission Unit ID Numbers: EU4
Emissions Control Equipment ID Number: CS2
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU4
Emission Unit Description: Corn Scalper, Conveyor, Surge Bin
Raw Material/Fuel: Grain
Rated Capacity: 140 tons/hr

Applicable Requirements

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

Pollutant: Opacity
Emission Limit(s): 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-145-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.107 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-145-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.107 lb/hr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-145-S1
567 IAC 23.4(7)

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

Operating Limits

Operating limits for this emission unit shall be:

A. The owner or operator shall maintain the Baghouse (CS2) according to the manufacturer's specifications and maintenance schedule.

Operating Condition Monitoring and Recordkeeping

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

A. A log of all maintenance and inspection activities performed on the Baghouse (CS2). This log shall include, but is not necessarily limited to:
   a. The date and time any inspection and/or maintenance was performed on the Baghouse (CS2);
   b. Any issues identified during the inspection and the date each issue was resolved;
   c. Any issues addressed during the maintenance activities and the date each issue was resolved; and
   d. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 06-A-145-S1

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

Stack Height (ft, from the ground): 68
Stack Opening (inches, dia.): 12
Exhaust Flow Rate (scfm): 2,500
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical, Obstructed
Authority for Requirement: DNR Construction Permit 06-A-145-S1

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

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Numbers: SV3, SV4, SV5, SV6, SV7

Associated Equipment

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Control Equipment ID	Control Equipment Description
SV3	EU5	Hammermill #1	Grain	25	CS3	Baghouse
SV4	EU6	Hammermill #2			CS4	
SV5	EU7	Hammermill #3			CS5	
SV6	EU8	Hammermill #4			CS6	
SV7	EU9	Hammermill #5			CS7	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40% (1)
Authority for Requirement: DNR Construction Permits 06-A-146-S2, 06-A-147-S2, 06-A-148-S2, 06-A-149-S2, 06-A-150-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit(s): 0.23 lb/hr
Authority for Requirement: DNR Construction Permits 06-A-146-S2, 06-A-147-S2, 06-A-148-S2, 06-A-149-S2, 06-A-150-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.23 lb/hr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits 06-A-146-S2, 06-A-147-S2, 06-A-148-S2, 06-A-149-S2, 06-A-150-S2
567 IAC 23.4(7)

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The facility is limited to processing the following grains: corn, sorghum and wheat.
   i. Record on a monthly basis, amount and the type of grain processed in the hammermills in bushels. Should grain other than corn be processed calculate and record the monthly average percentage of other grains processed.
   ii. If this hammermill processes more than 30% sorghum (by weight) or more than 10% wheat (by weight), the facility shall notify DNR within five (5) work days.
   iii. POET Biorefining – Corning (Facility ID: 02-05-001) is required to perform stack testing on the RTO (EP SV9) if the grain processed by this hammermill (EP SV3, SV4, SV5, SV6, SV7) exceeds, by weight, 30% sorghum or 10% wheat, on a monthly basis. The facility shall complete a stack test on the RTO (EP SV9) within 90 days after exceeding the grain content percentage, by weight.

B. Maintain the baghouse according to manufacturer specifications and maintenance schedule.
   i. The date and time any inspection and/or maintenance was performed on the Baghouse (CS3, CS4, CS5, CS6, CS7);
   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 DNR Construction Permits 06-A-146-S2, 06-A-147-S2, 06-A-148-S2, 06-A-149-S2, 06-A-150-S2

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 15
Stack Opening, (inches, dia.): 16 x 16
Exhaust Flow Rate (scfm): 9,000
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Obstructed
Authority for Requirement: DNR Construction Permits DNR Construction Permits 06-A-146-S2, 06-A-147-S2, 06-A-148-S2, 06-A-149-S2, 06-A-150-S2

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

Monitoring Requirements

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV8 (RTO Bypass Stack)

Associated Equipment

Associated Emission Unit ID Numbers: EU10, EU11
Emissions Control Equipment ID Number: CE CS8
Emissions Control Equipment Description: Packed Bed Wet Scrubber #1

EU	Emission Unit Description	Raw Material/ Fuel	Max Storage Capacity	Maximum Output Capacity
EU10	Fermenter #1 Fermenter #2 Fermenter #3 Fermenter #4 Fermenter #5 Fermenter #6 Fermenter #7	Corn Mash	730,000 gallons each	1,300 GPM beer feedrate
	Beer Well	Beer	890,000 gallons	1,300 GPM
EU11	Distillation Process: Evaporator, Strippers, (3) Molecular Sieves, Rectifier	Beer	78,000 gallons per hour	Beer feedrate 1,300 gallons per minute

Applicable 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-151-S6
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.31 lb/hr, 0.08 tons/yr, 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-151-S6
567 IAC 23.4(7)

Pollutant: Volatile Organic Compounds (VOC)
Emission Limits: 41.10 lb/hr, 10.28 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-151-S6

Pollutant: Single Hazardous Air Pollutant (HAP) (2)
Emission Limits: 6.03 lb/hr, 1.51 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-151-S6
(2) Emissions based on annual operating restriction of 500 hours, as specified in Operating Requirements with Associated Monitoring and Recordkeeping, show below.

Pollutant: Total Hazardous Air Pollutant (HAP) (2)
Emission Limits: 6.27 lb/hr, 1.57 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-151-S6
(2) Emissions based on annual operating restriction of 500 hours, as specified in Operating Requirements with Associated Monitoring and Recordkeeping, show below.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. Emissions from the Fermentation (EU10) and Distillation (EU11) units may bypass the thermal oxidizer (CS11) for a maximum of 500 hours per rolling twelve month period.
    i. The owner or operator shall record the number of hours that the emissions from the Fermentation (EU10) and Distillation (EU11) units bypass the thermal oxidizer (CS11) on a monthly basis. Calculate and record the rolling twelve month totals.
B. The owner or operator shall maintain the Wet Scrubber (CS8) according to the manufacturer's specifications and maintenance schedule.
    i. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Wet Scrubber (CS8).

Authority for Requirement: DNR Construction Permit 06-A-151-S6

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

Stack Height (ft, from the ground): 74
Stack Opening (inches, dia.): 24
Exhaust Flow Rate (scfm): 11,340
Exhaust Temperature (°F): Ambient
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-151-S6

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

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Compliance Assurance Monitoring (CAM) Plan
Scrubber (CE-CS8)
POET Biorefining – Corning, LLC

I. Background

A. Emissions Unit

Facility:	POET Biorefining – Corning, LLC
Source ID #:	EU10 and EU11
EU Description:	7 Batch Fermenters & Beer Well (EU10); Evaporators, Strippers, 3 Sieves, Rectifier (EU11)

B. Control Technology

Control Equipment ID:	CE-CS8
CE Description:	Packed Bed Wet Scrubber
PTE before controls:	513.9 ton/yr of VOC
	74.3 ton/yr of acetaldehyde
	75.7 ton/yr of total HAPs
PTE after controls:	10.28 ton/yr of VOC @ 95% control efficiency
	1.51 ton/yr of acetaldehyde @ 95% control efficiency
	1.53 ton/yr of total HAPs @ 95% control efficiency

C. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation #:	Iowa DNR Construction Permit 06-A-151-S6
Emission Limit:	41.10 lb/hr VOC
	6.03 lb/hr single HAP
	6.27 lb/hr total HAPs
Monitoring Requirements:	Continuously monitor water flow rate
	Continuously monitor additive injection rate

II. Monitoring Approach

A. Indicator:
1. Water flow rate will be used as an indicator.
2. Additive injection rate will be used as an indicator.

B. Monitoring Approach:
1. The water flow rate is monitored with a magnetic flow meter.

C. Indicator Range:
1. An excursion is defined as a scrubber water flow rate of less than the water flow rate recorded during most recent stack test.

D. QIP (Quality Improvement Plan) Threshold
The QIP threshold is triggered when there is an excursion of 5% of the operation in a semi-annual
reporting period (January 1 to June 30, or July 1 to December 31). A deviation shall be reported in the semi-annual report when the QIP threshold is triggered.

E. Performance Criteria:

Data Representativeness:

The flow meter is installed in the scrubber inlet line. The minimum accuracy is 0.35% of rate.

Verification of operational status:

Records of water flow rate to wet scrubber will be maintained for two years.

QA/QC practice and criteria:

1. Scrubber maintained per manufacturer recommendations
2. Flowmeter maintained per manufacturer recommendations

Monitoring frequency and data collection procedure:

1. Water flow rate is measured continuously

Average period:

1 hour average

III. Justification

A. Background:
VOC, acetaldehyde, and total HAPs emissions from the 7 batch fermenters & beer well (EU10); evaporators, strippers, 3 sieves, rectifier (EU11) are controlled with a packed bed water scrubber using once through water. Additive injection may be needed to achieve compliance with the HAPs limits.

B. Rationale for Selection of Performance Indicator:
The performance indicator selected is liquid flow to the scrubber. To achieve the required emission reduction, a minimum water flow must be supplied to absorb the given amount of VOC in the gas stream, given the size of the tower and the height of the packed bed. The liquid/gas (L/G) ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below a minimum value, sufficient mass transfer of the pollutant from the gas phase to the liquid phase will not occur. The minimum flow required to maintain the proper L/G ratio at the maximum gas flow and vapor loading through the scrubber can be determined. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times, thereby ensuring VOC emissions are reduced.

The second performance indicator selected is additive injection to the scrubber. To achieve the required HAPs emission reduction, a minimum additive injection rate may be required to react with the acetaldehyde and HAPs.

C. Rationale for Selection of Indicator Level:
The minimum water flow is based on the operating conditions during the latest performance testing that showed compliance with the current emission limits. The water flow rate to the scrubber must be maintained at this level or higher to achieve 95 percent emission reduction.

The minimum additive injection rate is based on the operating conditions during the latest performance testing that showed compliance with the current emission limits.

Emission Point ID Number: SV9 (RTO Stack)

Associated Equipment

The following equipment is vented through the RTO stack:

Emission Unit Description	Emission Unit ID	Max Storage Capacity	Max Output Capacity	Control Equipment Description and ID
7 Batch Mash Fermenters	EU10	730,000 gallons each	245 tons of mash per hour	Packed Bed Wet Scrubber (CE CS8) Regenerative Thermal Oxidizer – 30 MMBtu/hr (CE CS11)
Beerwell	EU10	890,000 gallons	Beer feedrate 1,300 gallons per minute	
Distillation (Evaporator, Strippers, 3 Molecular Sieves, Rectifier)	EU11	78,000 gallons per hour	Beer feedrate 1,300 gallons per minute	
Centrifuge #1, Centrifuge #2, Centrifuge #3, Centrifuge #4	EU15 EU16 EU17 EU18		325 gallons per minute of whole stillage per centrifuge	Regenerative Thermal Oxidizer – 30 MMBtu/hr (CE CS11)
DDGS Dryer 1 DDGS Dryer 2	EU12, EU13		28 tons of dried DDGS per hour per dryer 60 MMBtu per hour per dryer	Multi Cyclone (CE CS9) Multi Cyclone (CE CS10) Regenerative Thermal Oxidizer – 30 MMBtu/hr (CE CS11)

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permit 06-A-152-S7
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit: 13.29 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-152-S7

Pollutant: Particulate Matter (PM)
Emission Limit: 13.29 lb/hr; 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 06-A-152-S7
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit: 500 ppmv
Authority for Requirement: DNR Construction Permits 06-A-152-S7
567 IAC 23.3(3) "e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit: 14.07 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-152-S7

Pollutant: Volatile Organic Compound (VOC)
Emission Limit: 15.61 lb/hr, 50.79 lb/hr [(2)]
[(2)] Emission limits during Wet Scrubber (CS8) bypass only.
Authority for Requirement: DNR Construction Permit 06-A-152-S7

Pollutant: Carbon Monoxide (CO)
Emission Limit: 11.48 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-152-S7

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit: 1.5 lb/hr, 1.9 lb/hr [(2)]
[(2)] Emission limits during Wet Scrubber (CS8) bypass only.
Authority for Requirement: DNR Construction Permit 06-A-152-S7

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 2.49 lb/hr, 2.97 lb/hr [(2)]
[(2)] Emission limits during Wet Scrubber (CS8) bypass only.
Authority for Requirement: DNR Construction Permit 06-A-152-S7

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. DDGS Dryer 1, DDGS Dryer 2, and Regenerative Thermal Oxidizer are limited to firing natural gas or process off-gasses.
   i. The owner or operator shall maintain records of the type of fuel combusted in the DDGS Dryer #1, DDGS Dryer #2, and Regenerative Thermal Oxidizer.

B. The owner or operator shall maintain a 3-hour average operating temperature of Regenerative Thermal Oxidizer (CS11) no less than 50 degrees Fahrenheit below the average operating temperature of the RTO recorded during the most recent performance test which demonstrated compliance with the emission limits.
    i. The owner or operator shall maintain hourly records of the operating temperature (in degrees Fahrenheit) of the Regenerative Thermal Oxidizer (CS11) and record all three-hour periods (during actual operation) during which the average temperature of the Regenerative Thermal Oxidizer (CS11) is less than the temperature measured during the last compliance test which demonstrated compliance with the emission limits.

C. The Regenerative Thermal Oxidizer (CS11) shall be operated at all times DDGS Dryer 1 (EU12) and DDGS Dryer 2 (EU13) are in operation.
    i. The owner or operator shall keep records of the frequency and amount of time the Regenerative Thermal Oxidizer (CS11) malfunctions and record estimates of emissions during said malfunctions. All excess emission reporting shall be conducted in accordance with Conditions 11 and 12.

D. The owner or operator shall maintain the Regenerative Thermal Oxidizer (CS11) and Wet Scrubber (CS8) according to manufacturer specifications and recommendations.
    i. The owner or operator shall maintain a record of all inspections and maintenance performed on the Wet Scrubber (CS8) and the Regenerative Thermal Oxidizer (CS11). These records shall include any action resulting from any inspections or maintenance on the Wet Scrubber (CS8) and the Regenerative Thermal Oxidizer (CS11).

E. The owner or operator may bypass the Wet Scrubber (CS8) to the Regenerative Thermal Oxidizer (CS11) a maximum of 200 hours per rolling twelve month period. If the Wet Scrubber (CS8) is bypassed, the emissions must be vented through the Regenerative Thermal Oxidizer (CS11).
    A. The owner or operator shall record the number of hours that the emissions from the fermentation and distillation emission units bypass the Wet Scrubber (CS8) to the Regenerative Thermal Oxidizer (CS11) on a monthly basis. The owner or operator shall calculate and record the rolling twelve month totals on a monthly basis.

Authority for Requirement: DNR Construction Permit 06-A-152-S7

New Source Performance Standard (NSPS) Applicability

POET Biorefining-Corning is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart A-*General Provisions* and Subpart VV-*Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* as specified in 40 CFR Part 60 §60.480. However, POET Biorefining-Corning chooses to comply with the provisions of NSPS Subpart VVa, 40 CFR Part 60 §60.480a to satisfy the requirements of NSPS VV.

Authority for Requirement: DNR Construction Permit 06-A-152-S7

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

Stack Height (ft, from the ground): 100
Stack Opening (inches, dia.): 76
Exhaust Flow Rate (scfm): 85,500
Exhaust Temperature (°F): 320
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-152-S7

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

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

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed by – Annual(1)
Test Method - 40 CFR 60, Appendix A, Method 9
Authority for Requirement: 567 IAC 24.108(3)
DNR Construction Permit 06-A-152-S7
(1) Last stack test was performed on 11/12/24.

Pollutant – Particulate Matter (PM_{10})
Stack Test to be Completed by – Annual(1)
Test Method - 40 CFR 51, Appendix M, 201A with 202
Authority for Requirement: 567 IAC 24.108(3)
DNR Construction Permit 06-A-152-S7
(1) Last stack test was performed on 11/12/24.

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by – Annual(1)
Test Method – 40 CFR 60, Appendix A, Method 5
40 CFR 51, Appendix M, Method 202
Authority for Requirement: 567 IAC 24.108(3)
DNR Construction Permit 06-A-152-S7
(1) Last stack test was performed on 11/12/24.

Pollutant – Volatile Organic Compound (VOC)
Stack Test to be Completed by – Once every 3 years (2), (3), (4)
Test Method - 40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A,

Method 18

(2) Stack test shall be performed in the months of June, July or August.

(3) Stack testing under normal operating conditions (not during scrubber bypass) will be triggered after each of the following:

- After the facility processes, by weight, more than 30% sorghum in any of the hammermills, based on monthly throughput.
- After the facility processes, by weight, more than 10% wheat in any of the hammermills, based on monthly throughput.

(4) Last successful test was conducted on 6/11/24.

Authority for Requirement: 567 IAC 24.108(3)
DNR Construction Permit 06-A-152-S7

Pollutant – Single Hazardous Air Pollutant (HAP)
Stack Test – Once every 3 years (1), (2), (3), (4)
Test Method – 40 CFR 63, Appendix A, Method 320 or CFR 60, Appendix A, Method 18

(1) Acetaldehyde, Methanol, Acrolein and Formaldehyde shall be tested under SHAP. All HAP compounds tested that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.

(2) Stack test shall be performed in the months of June, July or August.

(3) Stack testing under normal operating conditions (not during scrubber bypass) will be triggered after each of the following:

- After the facility processes, by weight, more than 30% sorghum in any of the hammermills, based on monthly throughput.
- After the facility processes, by weight, more than 10% wheat in any of the hammermills, based on monthly throughput.

(4) Last successful test was conducted on 6/11/24.

Authority for Requirement: DNR Construction Permit 06-A-152-S7

Pollutant – Total Hazardous Air Pollutant (HAP)
Stack Test – Once every 3 years (2), (3), (4)
Test Method – 40 CFR 63, Appendix A, Method 320 or CFR 60, Appendix A, Method 18

(2) Stack test shall be performed in the months of June, July or August.

(3) Stack testing under normal operating conditions (not during scrubber bypass) will be triggered after each of the following:

- After the facility processes, by weight, more than 30% sorghum in any of the hammermills, based on monthly throughput.
- After the facility processes, by weight, more than 10% wheat in any of the hammermills, based on monthly throughput.

(4) Last successful test was conducted on 6/11/24.

Authority for Requirement: DNR Construction Permit 06-A-152-S7

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** ☐
See DNR Construction Permit 06-A-152-S7. CAM fulfilled by construction permit conditions.

Authority for Requirement: 567 IAC 24.108(3)

Compliance Assurance Monitoring (CAM) Plan
Regenerative Thermal Oxidizer and Scrubber Bypass (CE-CS11)
POET Biorefining – Corning, LLC

I. Background

A. Emissions Unit

Facility:	POET Biorefining – Corning, LLC
Source ID #:	EU10, EU11, EU12, EU13, EU15, EU16, EU17, EU18
EU Description:	7 Batch Fermenters (EU10), Evaporators/Strippers/Sieves/Rectifier (EU11), Two DDGS Dryers (EU12 & EU13), Four Centrifuges (EU15 through EU18)

Control Technology

Control Equipment ID:	CE-CS11
CE Description:	Regenerative Thermal Oxidizer
PTE before controls:	3278.03 ton/yr of VOC 250.73 ton/yr of CO 73.91 ton/yr of acetaldehyde 174.76 ton/yr of total HAPs 561.26 ton/yr of PM/PM10/PM2.5
PTE after controls:	65.56 ton/yr of VOC @ 98% control efficiency 48.23 ton/yr of CO @ 90% control efficiency 6.30 ton/yr of acetaldehyde @ 95% control efficiency 10.38 ton/yr of total HAPs @ 95% control efficiency 56.13 ton/yr of PM/PM10/PM2.5 @ 90% control efficiency

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation #:	Iowa DNR Construction Permit 06-A-152-S7
Emission Limit:	15.61, 50.79 lb/hr VOC 11.48 lb/hr CO 1.90 lb/hr single HAPs 2.47 lb/hr total HAPs 13.36 lb/hr PM/PM10/PM2.5
Monitoring Requirements:	RTO combustion chamber temperature

Monitoring Approach

A. Indicator:
Combustion chamber temperature
B. Monitoring Approach:
The combustion chamber temperature is monitored with a Type K thermocouple.
C. Indicator Range:
The combustion chamber temperature must be no less than 50 °F below average operating temp recorded during most recent stack test based on a 3-hour block average.

D. QIP (Quality Improvement Plan) Threshold
The QIP threshold is triggered when there is an excursion of 5% of the operation in a semi-annual
reporting period (January 1 to June 30, or July 1 to December 31). A deviation shall be reported in the semi-annual report when the QIP threshold is triggered.

E. Performance Criteria:

Data Representativeness:

N/A

Verification of operational status:

A recording thermocouple will provide the operating temperature of the combustion chamber.

QA/QC practice and criteria:

Calibrate, maintain, and operate instrumentation using procedures that take into account the manufacturer's specifications.

Monitoring frequency and data collection procedure:

Combustion chamber temperature is continuously recorded via the data acquisition systems.

Average period:

3-hour average temperature is calculated.

II. Justification

A. Rationale for Selection of Performance Indicator:
VOC, CO, acetaldehyde, and total HAPs emissions from the dryers (EU12 & EU13), and the Centrifuges (EU15, EU16, EU17, and EU18) are controlled using a regenerative thermal oxidizer (RTO). With regard to the RTO, the performance indicator selected is the combustion chamber temperature as it is the best indicator of the collection and destruction efficiency of the RTO.

B. Rationale for Selection of Indicator Level:
The minimum RTO temperature is based on the operating conditions during the latest performance testing that showed compliance with the current emission limits. The combustion temperature shall be maintained no lower than 50 °F of the temperature established during last stack test.

Emission Point ID Number: SV22 (Centrifuge Bypass)

Associated Equipment

Associated Emission Unit ID Numbers: EU15, EU16, EU17, EU18

EU	EU Description	Raw Material/ Fuel	Maximum Capacity
EU15	Centrifuge #1	Whole Stillage	325 Gallons per minute of whole stillage per centrifuge
EU16	Centrifuge #2		
EU17	Centrifuge #3		
EU18	Centrifuge #4		

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permit 17-A-164
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)
Emission Limit: 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 17-A-164
567 IAC 23.4(7)

Pollutant: Volatile Organic Compound (VOC)
Emission Limit: 3.14 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-164

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit: 0.07 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-164

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 17-A-164

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The owner or operator shall use EP SV22 Centrifuge Bypass Stack only when the Regenerative Thermal Oxidizer is down for maintenance.

B. The owner or operator shall use EP SV22 to vent emissions to the atmosphere from Centrifuge #1, Centrifuge #2, Centrifuge #3, and Centrifuge #4 no more than 500 hours per rolling 12-month period.

   i. The owner or operator shall record the total hours when emissions of Centrifuge #1, Centrifuge #2, Centrifuge #3, and Centrifuge #4 are vented through EP SV22 (Bypass stack) on a monthly basis. Calculate and record the rolling 12-month totals.

Authority for Requirement: DNR Construction Permit 17-A-164

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 51
Stack Opening (inches, dia.): 10
Exhaust Flow Rate (scfm): 3,373
Exhaust Temperature (°F): 200
Discharge Style: Horizontal
Authority for Requirement: DNR Construction Permit 17-A-164

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 24.108(3)

Emission Point ID Number: SV10

Associated Equipment

Associated Emission Unit ID Numbers: EU19
Emissions Control Equipment ID Number: CS12
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: EU19
Emission Unit Description: Fluid Bed Cooler
Raw Material/Fuel: DDGS
Rated Capacity: 23 tons/hr

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permit 06-A-153-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: 1.0 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-153-S2

Pollutant: Particulate Matter (PM)
Emission Limit: 1.0 lb/hr; 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-153-S2
567 IAC 23.4(7)

Pollutant: Volatile Organic Compound (VOC)
Emission Limit: 6.70 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-153-S2

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit: 0.25 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-153-S2

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 0.60 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-153-S2

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

Operating Limits

A. Maintain the Pulse Jet baghouse (CS-12) according to manufacturer specifications and maintenance schedules.

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

A. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Pulse Jet Baghouse (CS-12).

Authority for Requirement: DNR Construction Permit 06-A-153-S2

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

Stack Height (ft, from the ground): 70
Stack Opening (inches, dia.): 36
Exhaust Flow Rate (scfm): 21,300
Exhaust Temperature (ºF): 100
Discharge Style: Vertical Obstructed
Authority for Requirement: DNR Construction Permit 06-A-153-S2

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Compliance Assurance Monitoring (CAM) Plan
Fluid Bed Cooler (CE-CS12)
POET Biorefining – Corning, LLC

I. Background

A. Emissions Unit

Facility:	POET Biorefining – Corning, LLC
Source ID #:	EU19
EU Description:	Fluid Bed Cooler

B. Control Technology

Control Equipment ID:	CE-CS12
CE Description:	Baghouse
PTE before controls:	446.76 ton/yr of PM/PM10/PM2.5
PTE after controls:	4.47 ton/yr of PM/PM10/PM2.5 @ 99% control efficiency

C. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation #:	Iowa DNR Construction Permit 06-A-153-S2
Emission Limit:	1.0 lb/hr PM 1.0 lb/hr PM10
Monitoring Requirements:	Maintain baghouse according to manufacturer's specifications and maintenance schedule.

II. Monitoring Approach

A. Indicator:
Visible emissions.

B. Monitoring Approach:
Manufacturer recommended maintenance and specifications.

C. Indicator Range:
NA

D. Performance Criteria:
Data Representativeness:
NA

Verification of operational status:

A record of maintenance and inspections and any actions taken resulting from the maintenance or inspection will be completed.

QA/QC practice and criteria:

Manufacturer recommended maintenance and specifications

Monitoring frequency and data collection procedure:

Daily

Average period:

NA

III. Justification

C. Rationale for Selection of Performance Indicator:
Manufacturer recommended maintenance and specifications

Emission Point ID Number: SV11, SV12

Associated Equipment

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	Control Equipment ID	Control Equipment Description
SV11	EU20	DDGS Storage Silo	DDGS	28	CS13	Baghouse
SV12	EU21	DDGS Storage Silo Bypass			CS14	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permits 06-A-154-S1, 06-A-155-S1
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit: 0.10 lb/hr (2)
Authority for Requirement: DNR Construction Permits 06-A-154-S1, 06-A-155-S1
(2) Combined emission limit for DDGS Storage Silo (EP SV11) and DDGS Silo Bypass to flat storage (EP SV12).

Pollutant: Particulate Matter (PM)
Emission Limit: 0.10 lb/hr (2), 0.1 gr/dscf
Authority for Requirement: DNR Construction Permits 06-A-154-S1, 06-A-155-S1
567 IAC 23.4(7)
(2) Combined emission limit for DDGS Storage Silo (EP SV11) and DDGS Silo Bypass to flat storage (EP SV12).

Pollutant: Volatile Organic Compound (VOC)
Emission Limit: 0.14 lb/hr (2), 0.71 tons/yr
Authority for Requirement: DNR Construction Permits 06-A-154-S1, 06-A-155-S1
(2) Combined emission limit for DDGS Storage Silo (EP SV11) and DDGS Silo Bypass to flat storage (EP SV12).

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit: 0.01 lb/hr (2), 0.06 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-154-S1, 06-A-155-S1
(2) Combined emission limit for DDGS Storage Silo (EP SV11) and DDGS Silo Bypass to flat storage (EP SV12).

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 0.04 lb/hr [(2)], 0.19 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-154-S1, 06-A-155-S1
[(2)] Combined emission limit for DDGS Storage Silo (EP SV11) and DDGS Silo Bypass to flat storage (EP SV12).

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The owner or operator shall maintain the Baghouse (CS 13, CS14) according to the manufacturer's specifications and maintenance schedule.
   i. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the baghouse (CS 13, CS14).

Authority for Requirement: DNR Construction Permits 06-A-154-S1, 06-A-155-S1

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

	SV11	**SV12**
Stack Height (ft, from the ground)	114	30
Stack Opening (inches)	16 × 16	
Exhaust Flow Rate (acfm)	4,000	
Exhaust Temperature (°F)	Ambient	
Discharge Style	Vertical Obstructed	Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 06-A-154-S1, 06-A-155-S1

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

Monitoring Requirements

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV13, SV14

Associated Equipment

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity (MMBtu/hr)	Monitoring Equipment ID	Monitoring Equipment Description
SV13	EU22	Boiler #1	Natural Gas	143 Each	PEM1	NO_x Monitor
SV14	EU23	Boiler #2			PEM2	

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit: 1.07 lb/hr
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2

Pollutant: Particulate Matter (PM) - Federal
Emission Limit: 0.03 lb/MMBtu
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2
567 IAC 23.1(2)"ccc"

Pollutant: Particulate Matter (PM) - State
Emission Limit: 1.07 lb/hr, 0.6 lb/MMBtu
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2
567 IAC 23.3(2)"b"

Pollutant: SO_2
Emission Limit: 0.08 lb/hr; 500 ppmv
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2
567 IAC 23.3(3)

Pollutant: NO_x
Emission Limit: 5.72 lb/hr; 0.1 lb/MMBtu [(2)]
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2
567 IAC 23.1(2)"ccc"

[(2)] 40 CFR 60.44b(a)(1)(i), (h) and (i); this standard applies at all times including periods of startup, shutdown and malfunction. Compliance is determined on a 30-day rolling average basis.

Pollutant: Volatile Organic Compound (VOC)
Emission Limit: 0.77 lb/hr
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2

Pollutant: CO
Emission Limit: 5.01 lb/hr
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2

Operational Limits & Requirements

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

New Source Performance Standard (NSPS) Applicability

The following subparts apply to the emission unit(s) in this permit:

EU ID	Subpart	Title	Type	State Reference (567 IAC)	Federal Reference (40 CFR)
EU22 EU23	A	General Provisions	NA	23.1(2)	§60.1 – §60.19
	Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	NA	23.1(2)"ccc" [(1)]	§60.40b - §60.49b

[(1)] Federal amendments as published through January 20, 2011 are adopted.

Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. This boiler is limited to firing natural gas.
B. The owner or operator shall follow the applicable requirements of Subpart Db, 40 CFR 60.40b through 60.49b.
C. The owner or operator shall record and maintain records of the amounts of each fuel combusted during each day, and calculate the annual capacity factor on a 12 month rolling average basis with a new annual capacity factor calculated at the end of each calendar month, as required in 40 CFR 60.49b(d). The annual capacity factor is defined as the ratio between the actual heat

input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

D. The owner or operator shall maintain records of the following information for each steam generating unit operating day, as required in 40 CFR 60.49b(g). This information shall also be submitted in a report, as required in 40 CFR 60.49(i), with the following information:
   i. Calendar date
   ii. Average hourly nitrogen oxides emissions (as NO_2) rates measured or predicted.
   iii. 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxides 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 nitrogen oxides emission rates are in excess of the emission standard, with the reason 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 "F" factor used for calculations, method of determination, and type of fuel combusted.
   viii. Identification of the times when the pollutant concentrations exceeded the full span of the continuous monitoring system.
   ix. Description of any modifications to the continuous monitoring system that could affect the ability of the CMS to comply with Performance Specification 2 or 3.
   x. Results of the daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Appendix

Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

Stack Height (ft, from the ground): 75
Stack Opening (inches, dia.): 54
Exhaust Flow Rate (scfm): 40,000
Exhaust Temperature (°F): 280
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-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.*

Continuous Emissions Monitoring:

The owner or operator shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere. The CEM shall be operated and data collected as required under 40 CFR 60.48b(c), (d), (e) and (f), or use an approved alternative monitoring plan.

Authority for Requirement: DNR Construction Permits 06-A-156-S2, 06-A-157-S2

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV15

Associated Equipment

Associated Emission Unit ID Numbers: EU TK-001
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EU TK-001
Emission Unit Description: 190-Proof Ethanol Storage Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 250,000 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.

None at this time.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. 190 Proof Ethanol Storage Tank is limited to storing 190 proof ethanol only.

B. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).

C. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Kb- *Standards of Performance for Volatile Organic Liquid Storage Vessels*, specifically §60.115b and §60.116b.

D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-*General Provisions* §§60.1 through 60.19.

E. Record and report as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.

F. Record as specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies of all records required by §60.11b(b) for the life of the source.

G. Record as specified in 40 CFR Part 60 §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.

H. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.

I. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 06-A-158-S2

New Source Performance Standard (NSPS) Applicability

New Source Performance Standards (NSPS):
190 Proof Ethanol Storage Tank is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 as specified in 40 CFR Part 60 §60.110b(a).

190 Proof Ethanol Storage Tank is subject to the requirements/conditions of NSPS Subpart A-General Provisions.

Authority for Requirement: 40 CFR 60 Subpart A and Kb
DNR Construction Permit 06-A-158-S2

This storage tank is also subject to the requirements and conditions of NSPS Subpart VVa, Standards of Performance for *Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60 §60.480a).

Authority for Requirement: 40 CFR 60 Subpart VVa
567 IAC 23.1(2)"nn"

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

Stack Height, (ft, from the ground): 35
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working/Breathing Loss
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 06-A-158-S2

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

emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV16

Associated Equipment

Associated Emission Unit ID Numbers: EUTK-002
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EUTK-002
Emission Unit Description: 200-Proof Ethanol Storage Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 250,000 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.

None at this time.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. 200 Proof Ethanol Storage Tank (TK-002) is limited to storing 200 proof ethanol only.

B. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).

C. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Kb- *Standards of Performance for Volatile Organic Liquid Storage Vessels*, specifically §60.115b and §60.116b.

D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-*General Provisions* §§60.1 through 60.19.

E. Record and report as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.

F. Record as specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies of all records required by §60.11b(b) for the life of the source.

G. Record as specified in 40 CFR Part 60 §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.

H. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.

I. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 06-A-159-S2

New Source Performance Standard (NSPS) Applicability

New Source Performance Standards (NSPS):

200 Proof Ethanol Storage Tank (TK-002) is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 as specified in 40 CFR Part 60 §60.110b(a).

200 Proof Ethanol Storage Tank (TK-002) is subject to the requirements/conditions of NSPS Subpart A-General Provisions.

Authority for Requirement: 40 CFR 60 Subpart Kb
DNR Construction Permit 06-A-159-S2

This storage tank is also subject to the requirements and conditions of NSPS Subpart VVa, Standards of Performance for *Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60 §60.480a).

Authority for Requirement: 40 CFR 60 Subpart VVa
567 IAC 23.1(2)"nn"

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

Stack Height, (ft, from the ground): 35
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working/Breathing Loss
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 06-A-159-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 24.108(3)

Emission Point ID Number: SV17, SV18

Associated Equipment

Associated Emission Unit ID Numbers: EUTK003, EUTK004
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EUTK003, EUTK004
Emission Unit Description: 200-Proof Denatured Ethanol Storage Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 2,000,000 gallons (each)

Applicable Requirements

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

None at this time.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. 200 Proof Ethanol Storage Tank (TK-003 & TK-004) are limited to storing 200 proof ethanol only.

B. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).

C. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Kb- *Standards of Performance for Volatile Organic Liquid Storage Vessels*, specifically §60.115b and §60.116b.

D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-*General Provisions* §§60.1 through 60.19.

E. Record and report as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.

F. Record as specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies

of all records required by §60.11b(b) for the life of the source.

G. Record as specified in 40 CFR Part 60 §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.

H. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.

I. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permits 06-A-160-S3, 06-A-161-S3

New Source Performance Standard (NSPS) Applicability

New Source Performance Standards (NSPS):

200 Proof Ethanol Storage Tank (TK-003 & TK-004) are subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 as specified in 40 CFR Part 60 §60.110b(a).

200 Proof Ethanol Storage Tank (TK-003 & TK-004) are subject to the requirements/conditions of NSPS Subpart A-General Provisions.

Authority for Requirement: 40 CFR 60 Subpart Kb
DNR Construction Permits 06-A-160-S3, 06-A-161-S3

These storage tanks are also subject to the requirements and conditions of NSPS Subpart VVa, Standards of Performance for *Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60 §60.480a).

Authority for Requirement: 40 CFR 60 Subpart VVa
567 IAC 23.1(2)"nn"

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

Stack Height, (ft, from the ground): 51
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working/Breathing Loss
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permits 06-A-160-S3, 06-A-161-S3

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV19

Associated Equipment

Associated Emission Unit ID Numbers: EUTK005
Emissions Control Equipment ID Number: None
Emissions Control Equipment Description: Internal Floating Roof

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Emission Unit vented through this Emission Point: EUTK005
Emission Unit Description: Denaturant Storage Tank
Raw Material/Fuel: Denaturant
Rated Capacity: 126,900 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.

None at this time.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. Denaturant Storage Tank (TK-005) is limited to storing denaturant only.

B. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).

C. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Kb- *Standards of Performance for Volatile Organic Liquid Storage Vessels*, specifically §60.115b and §60.116b.

D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-*General Provisions* §§60.1 through 60.19.

E. Record and report as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.

F. Record as specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies of all records required by §60.11b(b) for the life of the source.

G. Record as specified in 40 CFR Part 60 §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.

H. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.

I. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 06-A-162-S3

New Source Performance Standard (NSPS) Applicability

New Source Performance Standards (NSPS):

Denaturant Storage Tank (TK-005) is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 as specified in 40 CFR Part 60 §60.110b(a).

Denaturant Storage Tank (TK-005) is subject to the requirements/conditions of NSPS Subpart A-General Provisions.

Authority for Requirement: 40 CFR 60 Subpart Kb
DNR Construction Permit 06-A-162-S3

This storage tank is also subject to the requirements and conditions of NSPS Subpart VVa, Standards of Performance for *Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry* for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60 §60.480a).

Authority for Requirement: 40 CFR 60 Subpart VVa
567 IAC 23.1(2)"nn"

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

Stack Height, (ft, from the ground): 29
Stack Opening, (inches, dia.): 10
Exhaust Flow Rate (scfm): Working/Breathing Loss
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 06-A-162-S3

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

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

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV20

Associated Equipment

Associated Emission Unit ID Numbers: EU24
Emissions Control Equipment ID Number: CS15
Emissions Control Equipment Description: Oxidation Catalyst System

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Emission Unit vented through this Emission Point: EU24
Emission Unit Description: Diesel Generator
Raw Material/Fuel: Diesel
Rated Capacity: 2,000 kW

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 06-A-163-S1

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit: 0.44 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-163-S1

Pollutant: Particulate Matter (PM)
Emission Limit: 0.44 lb/hr; 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.1(2)"yyy"
DNR Construction Permit 06-A-163-S1

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit: See Operating Requirements with Associated Monitoring and Recordkeeping
Authority for Requirement: 567 IAC 23.1(2)"yyy"
DNR Construction Permit 06-A-163-S1

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit: 51.0 lb/hr
Authority for Requirement: 567 IAC 23.1(2)"yyy"
DNR Construction Permit 06-A-163-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit: 1.84 lb/hr
Authority for Requirement: DNR Construction Permit 06-A-163-S1

Pollutant: Carbon Monoxide (CO)
Emission Limit: 1.00 lb/hr, 70% CO reduction or 23 ppmvd CO
Authority for Requirement: 567 IAC 23.1(2)"yyy"
567 IAC 23.1(4)"cz"
DNR Construction Permit 06-A-163-S1

Pollutant: Single Hazardous Air Pollutant (HAP)
Emission Limit: 0.0001 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-163-S1

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 0.003 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-163-S1

Operational Limits & Requirements

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

Federal Standards

A. New Source Performance Standards (NSPS):

This emission unit is of the source type regulated by the New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200 through 40 CFR §60.4219). This generator was manufactured after April 1, 2006 (manufactured on 10/11/2006); hence, this generator is subject to the requirements of this subpart because it commenced construction after July 11, 2005 (engine order date12/23/2005).

This emission unit is subject to the NSPS Subpart A – General Provisions.

i. In accordance with §60.4204(a), you must comply with the following emission standards. The emission standards that the engine must be certified by the manufacturer per §60.4210(c)(2)(i) to meet are:

Pollutant	Emission Standard	Basis
Particulate Matter (PM)	0.54 grams/kW-hr	Table 1 to Subpart IIII of Part 60
NOx	9.2 grams/kW-hr	Table 1 to Subpart IIII of Part 60
Carbon Monoxide (CO)	11.4 grams/kW-hr	Table 1 to Subpart IIII of Part 60
HC	1.3 grams/kW-hr	Table 1 to Subpart IIII of Part 60

B. National Emission Standards for Hazardous Air Pollutants (NESHAP):

This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ] and is also subject to the requirements of 567 IAC 23.1(4)"cz". This engine is considered an Existing (constructed under NESHAP on 06/05/2006) Non-Emergency Stationary Engine > 500 hp, located at an Area Source of HAP.

Authority for Requirement: 40 CFR Part 63, Subpart ZZZZ
567 IAC 23.1(4)"cz"
DNR Construction Permit 06-A-163-S1

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel:

Parameter	Limit
Sulfur (S) content	15 ppm (0.0015%) by weight
Minimum cetane index **or** Maximum aromatic content	40 35% (by volume)

The owner or operator of the engine shall comply with these requirements listed above by one of the following methods:

i. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);
ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or
iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.

B. The owner or operator of this generator shall follow the compliance requirements applicable under §60.4211.
C. The owner or operator of this generator shall follow the notification and reporting requirements applicable under §60.4214.
D. In accordance with §63.6625(g) the engine is required to be equipped with either a closed crankcase ventilation system or a filtered open crankcase ventilation system.
E. The owner or operator must operate and maintain a continuous temperature monitoring device on the inlet of the catalytic oxidizer that meets the requirements of §63.6625(b). The owner or operator shall maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal

to 1350 °F, based on a 4-hour rolling average.

F. The owner or operator must operate and maintain a pressure drop monitoring device across the catalytic oxidizer. The owner or operator shall maintain the catalyst so that pressure drop across it does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial compliance test.
G. The owner or operator shall maintain the following records:
    i. A record of the inlet temperature to the catalyst. The data shall be reduced to 4-hour rolling averages.
    ii. A record of the pressure drop across the catalyst. The pressure drop shall be recorded at least once per month.
H. The owner or operator of this generator shall follow the monitoring requirements of 40 CFR§63.6625.
I. The owner or operator of this generator shall follow the notification, reporting and recordkeeping requirements of 40 CFR§63.6645, 40 CFR§63.6650 and 40 CFR§63.6655, respectively.
J. Any other operating limits not listed here but are part of 40 CFR Part 63 Subpart ZZZZ shall also be maintained.
K. This generator (EU24) shall not operate more than 200 hours per rolling 12-month period, in non-emergency situations.
L. This generator (EU24) shall not operate more than 500 hours per rolling 12-month period, in emergency situations.
    i. An emergency situation is defined as non-normal operation, i.e. that plant has enacted emergency shutdown procedures.
M. Record on a monthly basis, the number of hours this emission unit (EU24) is operated under emergency and non-emergency situations. Calculate and record 12-month rolling totals.

Authority for Requirement: DNR Construction Permit 06-A-163-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 10
Stack Opening (inches, dia.): 8
Exhaust Flow Rate (scfm): 15,471
Exhaust Temperature (°F): 806
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-163-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.*

Stack Testing:

Pollutant – Carbon Monoxide (CO)
Stack Test to be Completed by – Every three years (1)
Test Method - 40 CFR 60, Appendix A, Method 10

(1) Stack testing shall demonstrate compliance with either 70% CO reduction or an outlet concentration of 23 ppm_{vd} CO at 15% O_2. Should the facility choose demonstrate compliance with the percent CO reduction, it shall measure CO and O_2 at the inlet and outlet of the control device. The facility is required to conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first. If the engine is operated less than 100 hours per year, testing frequency is reduced to every 5 years.

(2) Last successful test was conducted on 06/15/2022.

Authority for Requirement: 567 IAC 24.108(3)
DNR Construction Permit 06-A-163-S1

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: SV21

Associated Equipment

Associated Emission Unit ID Numbers: EU25a
Emissions Control Equipment ID Number: Flare (Truck Loadout Only)
Emissions Control Equipment Description: Flare (0.055 MMBtu/hr)

Emission Unit vented through this Emission Point: EU25a
Emission Unit Description: Truck and Rail Loadout
Raw Material/Fuel: Denatured Ethanol
Rated Capacity: 650 gal/min each (Truck Loadout #1, Truck Loadout #2),
2,400 gal/min (Rail Loadout)

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permit 06-A-164-S5
567 IAC 23.3(2)"d"

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

Pollutant: Particulate Matter (PM)
Emission Limit: 0.1 gr/dscf
Authority for Requirement: DNR Construction Permit 06-A-164-S5
567 IAC 23.3(2)"a"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit: 1.88 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-164-S5

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit: 20.46 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-164-S5

Pollutant: Carbon Monoxide (CO)
Emission Limit: 4.73 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-164-S5

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 1.77 tons/yr
Authority for Requirement: DNR Construction Permit 06-A-164-S5

Operational Limits & Requirements

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The undenatured ethanol production for the facility shall not exceed 100 million gallons on a rolling 12-month basis.
    i. The owner or operator shall record the amount of ethanol produced at the facility on a rolling 12-month basis.
B. The owner or operator shall loadout a maximum of 112.65 million gallons of undenatured ethanol, denatured ethanol, and E-70 combined per rolling 12-month period on a plantwide basis.
    i. The facility is allowed to loadout only denatured ethanol via the rail loadout, which is an as unflared loadout.
    ii. The owner or operator shall record the total amount of ethanol (in gallons, undenatured ethanol, denatured ethanol and E-70) loaded through the truck & rail loadout on a monthly basis, and calculate and record rolling twelve-month rolling totals.
C. The owner or operator shall loadout a maximum of 13 million gallons of E-70 per twelve month rolling period on a plantwide basis.
    i. The owner or operator shall record the amount of E-70 loadout on a plantwide basis in gallons, and update the twelve month rolling total for each on a monthly basis in gallons.
D. All truck loadouts shall be controlled by a 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.
    i. The owner or operator shall inspect and maintain the control equipment according to manufacturer's specifications.

Authority for Requirement: DNR Construction Permit 06-A-164-S5

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

Stack Height (ft, from the ground): 20
Stack Opening (inches, dia.): 9
Exhaust Flow Rate (scfm): 200
Exhaust Temperature (°F): 1,500
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-164-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 24.108(3)

Compliance Assurance Monitoring (CAM) Plan
Truck and Rail Loading Rack (CE-Flare)
POET Biorefining – Corning, LLC

I. Background

A. Emissions Unit

Facility:	POET Biorefining – Corning, LLC
Source ID #:	EU25a
EU Description:	Truck Loadout #1 and #2; Rail Loadout

B. Control Technology

Control Equipment ID:	CE-Flare
CE Description:	Flare
PTE before controls:	208.89 ton/yr of VOC
PTE after controls:	20.46 ton/yr of VOC @ 95% control efficiency

C. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation #:	Iowa DNR Construction Permit 06-A-164-S5
Emission Limit:	20.46 ton/yr VOC
Monitoring Requirements:	Pilot flame shall be monitored using a thermocouple or equivalent to detect presence of a flame.

II. Monitoring Approach

A. Indicator:
3. Thermocouple or equivalent will be used to detect presence of a flame.

B. Monitoring Approach:
2. The presence of a pilot flame is monitored with a thermocouple or equivalent.

C. Indicator Range:
2. An excursion is defined as any period of time the pilot flame is not detected while in operation

D. QIP (Quality Improvement Plan) Threshold
1. The QIP threshold is triggered when there are excursions on 5% of the operation in a semi-annual reporting period (January 1 to June 30, or July 1 to December 31). A deviation shall be reported in the semi-annual report when the QIP threshold is triggered.

E. Performance Criteria:

Data Representativeness:

A type K thermocouple is used to detect presence of a flame.

Verification of operational status:

The system that controls loading of trucks and railcars (Accuload) has programming logic that will not allow lading of railcars or trucks without the presence of a flame.

QA/QC practice and criteria:

3. Thermocouple validated annually by John Zinc per manufacturer recommendation
4. Flare components inspected and maintained per manufacturer specifications

Monitoring frequency and data collection procedure:

2. Flame status is monitored continuously by the Accuload

Average period:

NA

III. Justification

A. Background:
VOC emissions from the truck loading rack are controlled with a flare.

B. Rationale for Selection of Performance Indicator:
The performance indicator selected is a thermocouple to detect the presence of a pilot flame. To achieve the required emission reduction the flare must be operated during periods of truck loadout.

C. Rationale for Selection of Indicator Level:
The presence of a pilot flame is based on the requirement that the flare operate anytime truck loadout is used.

Emission Point ID Number: FS1

Associated Equipment

Associated Emission Unit ID Numbers: FS1
Emissions Control Measure Description: Dust Suppression / Partly Paved Roads

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Emission Unit vented through this Emission Point: FS1
Emission Unit Description: Haul Roads
Raw Material/Fuel: Truck Traffic
Rated Capacity: 31 VMT/hr (estimated)

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% (1)
Authority for Requirement: DNR Construction Permit 06-A-165-S2
567 IAC 23.3(2)"c"(1)

(1) The owner/operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property.

Pollutant: Particulate Matter (PM)
Emission Limit: 7.16 tons/yr (2)
Authority for Requirement: DNR Construction Permit 06-A-165-S2

(3) Based on emission calculations for the haul roads. This is to be calculated based on tested silt content, number of trucks (assuming trucks will be empty half of the miles traveled). See Operating Requirements with Associated Monitoring and Recordkeeping.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The owner or operator shall keep records of the number of trucks (both all trucks, and a subtotal of the amount of truck denaturant and truck ethanol loadout) that arrive on a monthly basis.
B. The owner or operator shall test both a representative paved road and a representative unpaved road for silt content once every quarter, prior to the application of any dust

controls (such as dust suppressant or watering).

C. The owner or operator shall apply chemical dust suppressants on unpaved roads at the rate and frequency required by the manufacturer's specifications to achieve a minimum of 65% fugitive dust control. If the selected chemical dust suppressant cannot be applied because the ambient air temperature (measured at the facility during daylight operating hours) will be less than 35 degrees F, or else weather conditions in combination with the dust suppression application could create hazardous driving conditions, then the chemical dust suppression application shall be postponed and applied as soon as the conditions preventing the application have abated.

D. If a dust suppression method, such as watering, is used on the paved road portion of the plant, the owner or operator shall document the procedures used and frequency and amount of application, and record each application.

E. The owner or operator shall keep records of dust suppressant application (date, location of suppressant application, and amount) along with documentation when environmental conditions meant the dust suppressant could not be applied as planned. The owner or operator shall also keep a copy of the manufacturer's specifications for achieving 65% dust suppression available for inspection.

F. The owner or operator shall calculate and record the monthly fugitive dust emissions according to the following formula, which uses the equations from AP-42 Section 13.2.2, the PM empirical constants, and assumes a mean vehicle weight of 27.5 tons, 65% dust suppression, and an average of 0.33 miles per truck delivery or loadout.

$E = k\ (s/12)^a * (W/3)^b$

Where E = size specific emission factor (lb/VMT)
s = surface silt content in % from that month's test results,
W = mean vehicle weight (tons)
K, a, and b are empirical constants from Table 13.2.2-2

G. The owner or operator shall calculate and record the monthly fugitive dust emissions according to the following formula, which uses the equations from AP-42 Section 13.2.1, the PM empirical constants, and assumes a mean vehicle weight of 27.5 tons and an average of 0.70 miles on paved roads per truck

$Eext = [\ k\ (sL)0.91\ x\ (W)1.02\ ]\ (1 – P/4N)$

Where Eext = annual or other long-term average emission factor in the same units as k,
k = particle size multiplier for particle size range and units of interest,
sL = road surface silt loading (grams per square meter) (g/m2),
W = average weight (tons) of the vehicles traveling the road,
P = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period. P = 90 based on AP-42 Section 13.2.1 Figure 13.2.1-2., and
N = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly

H. The owner or operator shall use the daily VMT to convert lb/VMT to lb/day. The owner

or operator shall update monthly the twelve month rolling total PM emissions by adding up the calculated monthly emissions for the previous twelve months (for both paved and unpaved road emissions), and immediately notify the DNR if the twelve month rolling total exceeds 7.16 tons.

Authority for Requirement: DNR Construction Permit 06-A-165-S2

Monitoring Requirements

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS2

Associated Equipment

Associated Emission Unit ID Numbers: FS2
Emissions Control Equipment ID Number: CE CT
Emissions Control Equipment Description: Mist Eliminator – drift loss 0.005%

Emission Unit vented through this Emission Point: FS2
Emission Unit Description: Cooling Towers (3 Cells)
Raw Material/Fuel: Water
Rated Capacity: 21,244 Gallons per minute for 3 cells

Applicable Requirements

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

Pollutant: Opacity
Emission Limit: 40% [(1)]
Authority for Requirement: DNR Construction Permit 06-A-166-S2

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

Pollutant: Particulate Matter (PM_{10})
Emission Limit: 1.33 lbs/hr
Authority for Requirement: DNR Construction Permit 06-A-166-S2

Pollutant: Particulate Matter (PM)
Emission Limit: 1.33 lbs/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permit 06-A-166-S2

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The Total Dissolved Solids (TDS) concentration in the cooling water shall not exceed

2,500 parts per million by weight (2,500 mg/L) for any single sampling event.

i. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration in the cooling water associated with Cooling Tower on a monthly basis expressed as parts per million by weight (mg/L).

B. Biocide or additive used in cooling water shall not contain any VOCs or HAPs.

i. Maintain onsite a copy of Safety Data Sheet (SDS) of any biocide or additive used in cooling water detailing VOC and HAP content (if any).

C. Maintain Cooling Tower according to manufacturer specifications and maintenance schedule.

i. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Cooling Tower.

Authority for Requirement: DNR Construction Permit 06-A-166-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 31
Stack Opening (inches, dia.): 37
Exhaust Flow Rate (acfm): 600,000
Exhaust Temperature (°F): 70
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 06-A-166-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.*

Compliance Demonstration(s)

Compliance Demonstration Table

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
TDS[1]	Water Sampling	Monthly	NA	NA

[1] TDS = Total Dissolved Solids.

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS3 (Plant-wide)

Associated Equipment

Associated Emission Unit ID Number: FS3
Emissions Control Measure Description: Leak Detection and Repair (LDAR)

Emission Unit vented through this Emission Point: FS3
Emission Unit Description: Fugitive Emissions from Equipment Leaks
Raw Material/Fuel: Fugitive Emissions
Rated Capacity: 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: Volatile Organic Compounds (VOC)
Emission Limit: 7.94 tons/yr (1)
Authority for Requirement: DNR Construction Permit 06-A-167-S4

Pollutant: Total Hazardous Air Pollutant (HAP)
Emission Limit: 0.034 tons/yr (1)
Authority for Requirement: DNR Construction Permit 06-A-167-S4

(1) Emission limit established to keep the facility an area source for HAPs. This is a plant-wide equipment leak limit with compliance demonstration specified in condition 5 of this permit.

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

Operating Requirements with Associated Monitoring and Recordkeeping

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

A. The component count shall be documented as to the number and types of components used. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The component count shall be updated as the component count varies.

B. Calculate and record the VOC emissions in Tons based on the documented component count. Update annualized VOC emission calculations as the component count varies. Emission factors shall be based on EPA document 453/R-95-017 entitled Protocol for Equipment Leak Emission Estimates.

C. The owner or operator shall follow the applicable standards of NSPS Subpart VVa, 40 CFR 60.480a through 40 CFR 60.489a.
D. The owner or operator shall keep records as required in 40 CFR 60.486a and reports as required in 40 CFR 60.487a.

Authority for Requirement: DNR Construction Permit 06-A-167-S4

New Source Performance Standards (NSPS) Applicability:
POET Biorefining-Corning is subject to the requirements/conditions of New Source Performance Standards (NSPS) Subpart VV- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry as specified in 40 CFR Part 60 §60.480. However, POET Biorefining-Corning chooses to comply with the provisions of NSPS Subpart VVa, 40 CFR Part 6 §60.480a to satisfy the requirements of NSPS VV.

POET Biorefining-Corning is subject to the requirements and conditions of NSPS Subpart A-General Provisions.

Authority for Requirement: DNR Construction Permit 06-A-167-S4

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

Compliance Demonstration(s)

Compliance Demonstration Table

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
VOC	Operating Requirements & NSPS VVa	Monthly & as specified in NSPS VVa Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
Single HAP	Operating Requirements & NSPS VVa	Monthly & as specified in NSPS VVa Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
Total HAP	Operating Requirements & NSPS VVa	Monthly & as specified in NSPS VVa Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

Testing shall be conducted:

- Within sixty (60) days after achieving the maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.
- Within ninety (90) days of the issuance of this permit if there is no physical modification to any emission units or control equipment.

Authority for Requirement: DNR Construction Permit 06-A-167-S4

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

Emission Point ID Number: FS4

Associated Equipment

Associated Emission Unit ID Numbers: FS4

Emission Unit vented through this Emission Point: FS4
Emission Unit Description: Grain Handling Fugitives
Raw Material/Fuel: Grain and DDGS
Rated Capacity: 840 tons/hr

Applicable Requirements

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

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

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

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

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

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

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

Authority for Requirement: 567 IAC 24.108(3)

IV. General Conditions

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

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 24.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 24.105(2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 24.108(1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 24.108(14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 24.108(9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 24.108(15)"c"*

G2. Permit Expiration

1. Except as provided in rule 567—24.104(455B), permit expiration terminates a source’s right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—24.105(455B). *567 IAC 24.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 24.105(2). *567 IAC 24.105*

G3. Certification Requirement for Title V Related Documents

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

inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 24.107(4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 24.108(15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 24.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 24.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 24.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 24.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges
Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:
1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 24.108 (15)"b"*

G8. Duty to Provide Information
The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 24.108 (9)"e"*

G9. General Maintenance and Repair Duties
The owner or operator of any air emission source or control equipment shall:
1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 21.8(1)*

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

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

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

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

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

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 24.108(4), 567 IAC 24.108(12)*

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

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

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

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 24;

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

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

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

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

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

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

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 24.108(6)*

G13. Hazardous Release

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

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process

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

2. Excess Emissions Reporting

a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 21.10(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 21.10(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:

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

ii. The estimated quantity of the excess emission.

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

iv. The cause of the excess emission.

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

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

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

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

ii. The estimated quantity of the excess emission.

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

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 24.108(5)"b"*

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

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

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

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

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 24.
b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—24.140(455B) through 567 - 24.144(455B));.
e. The changes comply with all applicable requirements.
f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,
ii. The date on which the change will occur,
iii. Any change in emission as a result of that change,

iv. The pollutants emitted subject to the emissions trade
v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 24.110(1)*

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

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 24.110(1). *567 IAC 24.110(3)*

4. The permit shield provided in subrule 24.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 24.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 24.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

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

i. Correct typographical errors
ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
iii. Require more frequent monitoring or reporting by the permittee; or
iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

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

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

2. Minor Title V Permit Modification.

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

i. Do not violate any applicable requirement;

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

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

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

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

vi. Are not required to be processed as significant modification under rule 567 - 24.113(455B).

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

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

ii. The permittee's suggested draft permit;

iii. Certification by a responsible official, pursuant to 567 IAC 24.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 24.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 24.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

3. Significant Title V Permit Modification.

Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 24, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 24.111-567 IAC 24.113*

G19. Duty to Obtain Construction Permits

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

G20. Asbestos

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

G21. Open Burning

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

G22. Acid Rain (Title IV) Emissions Allowances

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

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

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
    a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
    b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
    c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
    d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 24.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the

source receives approval for coverage under that general permit. *567 IAC 24.108(17)"a", 567 IAC 24.108(17)"b"*

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

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

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

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

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

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 24.114*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 24.114*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 24.114*

G25. Permit Shield

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

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

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

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

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

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

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

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

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 24.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 24.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 24.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 24.111(1). *567 IAC 24.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 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 (42 days) of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
6200 Park Ave
Suite 200
Des Moines, IA 50321
(515) 343-6589

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

G31. Prevention of Air Pollution Emergency Episodes

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

G32. Contacts List

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

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

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

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

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

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

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

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

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

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

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

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

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

V. Appendix A: Links to Standards

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

B. 40 CFR 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 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

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

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

F. 40 CFR 63 Subpart BBBBBB – National Emission Standard for Hazardous Air Pollutants for *Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities.*
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-BBBBBB

VI. Appendix B: Executive Order 10 (EO10) Rules Crosswalk

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

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

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

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

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

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

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

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

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30	**30**	**Fees**	**Fee**	**Kept**
30.1	30.1	Purpose	Purpose	Kept, language updated
30.2	30.2	Fees associated with new source review applications	Fees associated with new source review applications	Kept, some language updated
30.3	30.3	Fees associated with asbestos demolition or renovation notification	Fees associated with asbestos demolition or renovation notification	Kept, some language updated
30.4	30.4	Fees associated with Title V operating permits	Fees associated with Title V operating permits	Kept, some language updated
30.5	30.5	Fee advisory groups	Fee advisory groups	Kept, language updated
30.6	30.6	Process to establish or adjust fees and notification of fee rates	Process to establish or adjust fees and notification of fee rates	Kept, some language updated
30.7	30.7	Fee revenue	Reserved	Language removed

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

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

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

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

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

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34.307	N/A	Monitoring and reporting - rescinded	N/A	Rescinded, reserved, and language removed
34.308	N/A	Performance specifications - rescinded	N/A	Rescinded, reserved, and language removed

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