# Iowa Department of Natural Resources Draft Title V Operating Permit

Name of Permitted Facility: Pine Lake Corn Processors Facility Location: 33371 170<sup>th</sup> Street, Steamboat Rock, IA 50672 Air Quality Operating Permit Number: 19-TV-001 Expiration Date: July 14, 2024 Permit Renewal Application Deadline: January 14, 2024

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

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

<u>Permit Contact Person for the Facility</u> Name: James Broghammer Title: CEO Mailing Address: 33371 170<sup>th</sup> Street, Steamboat Rock, IA 50672 Phone #: 641/868-2676

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

Lori Hanson, Supervisor of Air Operating Permits Section

Date

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# Abbreviations

| acfm      | actual cubic feet per minute                  |
|-----------|---|
|           | Code of Federal Regulation                    |
| СЕ        | -   |
|           | continuous emission monitor                   |
| °F        | degrees Fahrenheit                            |
|           | emissions inventory questionnaire             |
| EP        | • 1   |
| EU        | 1   |
| gr./dscf  | grains per dry standard cubic foot            |
|           | Iowa Administrative Code                      |
| DNR       | Department of Natural Resources               |
|           | motor vehicle air conditioner                 |
| NAICS     | North American Industry Classification System |
| NSPS      | new source performance standard               |
|           | parts per million by volume                   |
| lb./hr    |   |
| lb./MMBtu | pounds per million British thermal units      |
|           | 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 <sub>10</sub> | particulate matter ten microns or less in diameter |
| SO <sub>2</sub>  | sulfur dioxide                                     |
| NO <sub>x</sub>  | nitrogen oxides                                    |
| VOC              | volatile organic compound                          |
| СО               | carbon monoxide                                    |
| НАР              | hazardous air pollutant                            |
|                  |  |

# I. Facility Description and Equipment List

Facility Name: Pine Lake Corn Processors Permit Number: 19-TV-001

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

# **Equipment List**

| Emission Point<br>Number       | Emission<br>Unit<br>Number | Emission Unit Description                    | DNR<br>Construction<br>Permit Number |  |
|--------------------------------|----------------------------|--|--------------------------------------|--|
| S01                            | EU01                       | Truck Dump Pit #1                            |                                      |  |
| Grain Handling<br>Baghouse #1  | EU02                       | Corn Elevator- Headhouse & Internal Handling | 03-A-620-S4                          |  |
| S111                           | EU111                      | Truck Dump Pit #2                            |                                      |  |
| Grain Handling<br>Baghouse #2  | EU112                      | Corn Elevator                                | 17-A-487-S1                          |  |
| S03                            | EU03                       | Grain Storage Bin #1                         | 06-A-812-S4                          |  |
| S04                            | EU04                       | Grain Storage Bin #2                         | 06-A-813-S4                          |  |
| S05                            | EU05                       | Grain Storage Bin #3                         | 16-A-468-S3                          |  |
| S112                           | EU112                      | Grain Storage Bin #4                         | 17-A-485-S1                          |  |
| S113                           | EU113                      | Grain Storage Bin #5                         | 17-A-486-S1                          |  |
| S10                            | EU10                       | Hammermill #1                                |                                      |  |
| Hammermill                     | EU11                       | Hammermill #2                                | 03-A-621-S5                          |  |
| Baghouse #1                    | EU102                      | Hammermill #3                                | _                                    |  |
| S11                            | EU13                       | Hammermill #4                                |                                      |  |
| Hammermill<br>Baghouse #2 EU14 |                            | Hammermill #5                                | 16-A-187                             |  |
|                                | EU58                       | Denatured Ethanol Loadout-Truck              |                                      |  |
|                                | EU59                       | Ethanol Loadout-Rail                         | _                                    |  |
|                                | EU25                       | Fermenter #3                                 | _                                    |  |
| 010 E(1 1                      | EU27                       | Fermenter #7                                 | _                                    |  |
| S12 Ethanol<br>Loadout         | EU28                       | Fermenter #8                                 | 03-A-628-S4                          |  |
| Loadout                        | EU65                       | Fermenter #9                                 |                                      |  |
|                                | EU66                       | Fermenter #10                                |                                      |  |
|                                | EU67                       | Fermenter #11                                |                                      |  |
|                                | EU86                       | 200 Proof Condenser #2                       |                                      |  |
|                                | EU55                       | Liquefication Tank #1                        |                                      |  |
|                                | EU71                       | Liquefication Tank #2                        |                                      |  |
|                                | EU73                       | Liquefication Tank #3                        |                                      |  |
| S20                            | EU74                       | Liquefication Tank #4                        | 03-A-622-S11                         |  |
|                                | EU101                      | Liquefication Tank #5                        |                                      |  |
|                                | EU88                       | Liquefication Tank #6                        |                                      |  |
|                                | EU31                       | De-Gas Vessel                                |                                      |  |

| <b>Emission Point</b> | Emission       | Emission Unit Description      | DNR                           |
|-----------------------|----------------|--------------------------------|-------------------------------|
| Number                | Unit<br>Number |                                | Construction<br>Permit Number |
|                       | EU32           | Beer Stripper #1               | Permit Number                 |
|                       | EU32<br>EU83   | Beer Stripper #2               |                               |
|                       | EU33           | Side Stripper #1               |                               |
|                       | EU84           | Side Stripper #2               |                               |
|                       | EU34           | Rectifier #1                   |                               |
|                       | EU85           | Rectifier #2                   |                               |
|                       | EU35           | Molecular Sieve #1             |                               |
|                       | EU87           | Molecular Sieve #2             |                               |
|                       | EU60           | 200 Proof Condenser #1         |                               |
|                       | EU86           | 200 Proof Condenser #2         |                               |
|                       | EU36           | Evaporator #1                  |                               |
|                       | EU82           | Evaporator #2                  |                               |
|                       | EU39           | Syrup Tank                     |                               |
|                       | EU53           | Whole Stillage Tank            |                               |
|                       | EU54           | Thin Stillage Tank             |                               |
|                       | EU57           | Process Condensate Tank        |                               |
|                       | EU30           | Slurry Tank #1                 |                               |
|                       | EU42           | Slurry Tank #1                 |                               |
|                       | EU20           | Yeast Tank #1                  |                               |
|                       | EU72           | Yeast Tank #2                  |                               |
|                       | EU23           | Fermenter #1                   |                               |
|                       | EU24           | Fermenter #2                   |                               |
|                       | EU25           | Fermenter #3                   |                               |
|                       | EU26           | Fermenter #4                   |                               |
| S20, S30              | EU99           | Fermenter #5                   | 03-A-622-S11                  |
|                       | EU100          | Fermenter #6                   | & 16-A-488-S3                 |
|                       | EU27           | Fermenter #7                   |                               |
|                       | EU28           | Fermenter #8                   |                               |
|                       | EU65           | Fermenter #9                   |                               |
|                       | EU66           | Fermenter #10                  |                               |
|                       | EU67<br>EU22   | Fermenter #11                  |                               |
| \$37                  | EU22<br>EU37   | Beer Well<br>Centrifuge #1     | 10-A-161-S2                   |
| <u>\$38</u>           | EU37<br>EU38   | Centrifuge #2                  | 10-A-161-52<br>10-A-162-S2    |
|                       | EU38<br>EU77   | Centrifuge #2<br>Centrifuge #3 | 10-A-102-52                   |
| S79                   | EU77<br>EU78   | Centrifuge #4                  | 16-A-493-S1                   |
| S40 RTO #1            |                | DDGS Dryer #1                  |                               |
| S40 RTO #1            | EU40           | •                              | 03-A-624-S9                   |
| Bypass                |                | DDGS Dryer #1                  |                               |
|                       | EU68           | DDGS Dryer A                   | 16 4 400 52                   |
| S50 RTO #2            | EU69           | DDGS Dryer B                   | 16-A-490-S2                   |
| S41 DDGS              |                |                                |                               |
| Cooler "1             | EU41           | DDGS Cooler #1                 | 03-A-625-S7                   |
| Baghouse #1           |                |                                |                               |

| <b>Emission Point</b> | Emission    | Emission Unit Description          | DNR           |
|-----------------------|-------------|------------------------------------|---------------|
| Number                | Unit        |                                    | Construction  |
|                       | Number      |                                    | Permit Number |
| S42 DDGS              |             |                                    |               |
| Cooler                | EU43        | DDGS Cooler #2                     | 16-A-491-S2   |
| Baghouse #2           |             |                                    |               |
| S70                   | EU70        | Utility Boiler #1                  | 04-A-192-S4   |
| S90                   | EU90        | Fire Pump Engine                   | 04-A-1100-S3  |
| S110                  | EU110       | Utility Boiler #2                  | 16-A-483      |
| FS001                 | FS001       | Grain Receiving Fugitives          |               |
| S80                   | FS002       | DDGS Storage Building #1 Fugitives | 04-A-191-S2   |
| FS003                 | FS003       | Truck Traffic Fugitives            | 06-A-832-S2   |
| FS004                 | FS004       | Cooling Tower #1 (4 cells)         | 06-A-829-S2   |
| FS004 (E-G)           | FS004 (E-G) | Cooling Tower #2 (3 cells)         | 16-A-484      |
| FS005                 | FS005       | Equipment Leak Fugitives           | 06-A-831-S1   |
| S80                   | FS006       | Wet Cake Storage Fugitives         | 04-A-191-S2   |
| FS007                 | FS007       | DDGS Storage Building #2 Fugitives |               |
| TK001                 | TK01        | 200 Proof Tank                     | 03-A-629-S5   |
| TK002                 | TK02        | Denaturant Storage Tank            | 03-A-630-S4   |
| TK003                 | TK03        | 200 Proof Tank                     | 03-A-631-S4   |
| TK004                 | TK04        | 200 Proof Tank                     | 03-A-632-S4   |
| TK005                 | TK05        | 200 Proof Tank                     | 16-A-485      |
| TK006                 | TK06        | 200 Proof Tank                     | 16-A-492      |

# Insignificant Activities Equipment List

| Insignificant Emission<br>Unit Number | Insignificant Emission Unit Description |
|---------------------------------------|---|
| Gasoline                              | 500 gallon Storage Tank                 |
| Diesel Fuel                           | 500 gallon Storage Tank                 |

# **II. Plant-Wide Conditions**

Facility Name: Pine Lake Corn Processors Permit Number: 19-TV-001

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

#### **Permit Duration**

The term of this permit is: 5 years Commencing on: July 15, 2019 Ending on: July 14, 2024

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

#### **Emission Limits**

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

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

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

#### Particulate Matter:

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

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B). Authority for Requirement: 567 IAC 23.3(2)"a".

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

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

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

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

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

Facility Name: Pine Lake Corn Processors Permit Number: 19-TV-001

# Emission Point ID Number: S01 Grain Handling Baghouse #1

Associated Equipment

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description                       | Control<br>Equipment        | Raw<br>Material      | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|-------------------|------------------|--|-----------------------------|----------------------|-------------------|-------------------------------|
|                   | EU01             | Dump Pit #1  | CE01; Pulse Jet<br>Baghouse |                      | 15,000 bu/hr      | 03-A-620-S4                   |
| S01               | EU02             | Corn Elevator-<br>Headhouse & Internal<br>Handling |                             | Whole kernel<br>corn |                   |                               |

#### Applicable Requirements

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

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

| Emission<br>Point | Opacity | PM-10      | Particulate<br>Matter      | Authority for Requirement                        |
|-------------------|---------|------------|----------------------------|--|
| S01               | 40%(1)  | 0.50 lb/hr | 0.50 lb/hr,<br>0.1 gr/dscf | 03-A-620-S4, 567 IAC 23.3(2)"d", 567 IAC 23.4(7) |

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

#### **Operational Limits 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 operate and maintain the Baghouse (CE01) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Baghouse (CE01). This log shall include, but is not limited to:
  - i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
- ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
- iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,

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

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

#### **Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.* 

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

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

#### **Monitoring Requirements**

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

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

# **Emission Point ID Number:** S111 Grain Handling Baghouse #2

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment | Raw<br>Material      | Rated<br>Capacity    | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|----------------------|----------------------|----------------------|-------------------------------|
| S111              | EU111            | Grain Receiving              | ,                    | Whole<br>kernel corn | 20,000<br>bushels/hr | 17-A-487-S1                   |
| 5111              | EU112            | Corn Elevator                |                      |                      |                      | 17 11 107 51                  |

#### Associated Equipment

#### Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter      | Authority for Requirement                        |
|-------------------|--------------------|------------|------------|----------------------------|--|
| S111              | 40% <sup>(1)</sup> | 0.48 lb/hr | 0.48 lb/hr | 0.48 lb/hr,<br>0.1 gr/dscf | 17-A-487-S1, 567 IAC 23.3(2)"d", 567 IAC 23.4(7) |

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

#### **Operational Limits 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 is limited to operating the Grain Receiving (EU111) and Corn Elevator (EU112) between the hours of 7 am to 7 pm. On a daily basis, the owner or operator shall record the date and time that the Grain Receiving (EU111) and Corn Elevator (EU112) is operated.
- B. The owner or operator shall operate and maintain the Baghouse (CE60) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Baghouse (CE60). This log shall include, but is not limited to:
  - i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
  - ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
  - iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
  - iv. Identification of the staff member performing the inspection or maintenance activity.

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

#### **Emission Point Characteristics**

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

These emission points shall conform to the specifications listed below.

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

#### **Monitoring Requirements**

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

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

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

Associated Equipment

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

#### **Applicable Requirements**

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

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

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

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

#### **Operational Limits 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 is limited to loading the grain storage bins (EU-03, EU-04, EU-05, EU-112, and EU-113) only between the hours of 7 am and 7 pm. On a daily basis, the owner or operator shall record the date and beginning and ending times that the grain storage bins are loaded.
- B. The owner or operator shall operate and maintain the Bin Vent Filter (CE03), Bin Vent Filter (CE04), Dust Collection Filter (CE05), Dust Collection Filter (CE61), and Dust

Collection Filter (CE62) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the Bin Vent Filter (CE03), Bin Vent Filter (CE04), Dust Collection Filter (CE05), Dust Collection Filter (CE61), and Dust Collection Filter (CE62). This log shall include, but is not limited to:

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

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

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

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

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that 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 rebelow. | equirements listed |
|--|--------------------|
| Agency Approved Operation & Maintenance Plan Required?                         | Yes 🛛 No 🗌         |
| See Appendix B for Agency O&M plan.  |                    |
| Facility Maintained Operation & Maintenance Plan Required?                     | Yes 🗌 No 🖂         |
| Compliance Assurance Monitoring (CAM) Plan Required?                           | Yes 🗌 No 🖂         |
| Authority for Requirement: 567 IAC 22.108(3)                                   |                    |

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

#### DNR Emission Emission **Emission Unit** Control Raw Rated Construction Point Unit Description Equipment Material Capacity Permit Hammermill #1 770 lb/min EU10 S10 CE10; Pulse Jet Whole kernel 770 lb/min EU11 Hammermill #2 03-A-621-S5 Baghouse corn EU102 Hammermill #3 933 lb/min EU13 Hammermill #4 CE11: Pulse Jet Whole kernel 933 lb/min S11 16-A-487 Baghouse corn **EU14** Hammermill #5

#### Associated Equipment

#### **Applicable Requirements**

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter      | Authority for Requirement                           |
|-------------------|--------------------|------------|------------|----------------------------|---|
| S10               | 40%(1)             | 0.48 lb/hr | 0.48 lb/hr | 0.48 lb/hr,<br>0.1 gr/dscf | 03-A-621-S5, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |
| S11               | 40% <sup>(1)</sup> | 0.48 lb/hr | 0.48 lb/hr | 0.48 lb/hr,<br>0.1 gr/dscf | 16-A-487, 567 IAC 23.4(7), 567 IAC 23.3(2)"d"       |

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

#### **Operational Limits 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/operator shall maintain each baghouse (CE10 and CE11) associated with these emission points according to the manufacturer's specifications.
- B. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment (CE10 and CE11). This log shall include, but is not limited to:
  - i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
  - ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
  - iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,

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

Authority of Requirement: DNR Construction Permit 03-A-621-S5 DNR Construction Permit 16-A-487

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S10               | 35.8                                      | 16.2 X 15                     | 12,500                         | Ambient                        | Vertical<br>Unobstructed | 03-A-621-S5                  |
| S11               | 35.8                                      | 17.65 diameter                | 13,000                         | Ambient                        | Vertical<br>Unobstructed | 16-A-487                     |

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 □

 See Appendix B for Agency O&M plan.

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

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

 Authority for Requirement: 567 IAC 22.108(3)
 Yes □ No ⊠

## **Emission Point ID Number: S12 Ethanol Loadout**

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description         | Control<br>Equipment                              | Raw<br>Material        | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|-------------------|------------------|--------------------------------------|---|------------------------|-------------------|-------------------------------|
| S12               | EU58             | Denatured Ethanol<br>Loadout - Truck | CE12; 30MMBtu/hr<br>Flare (Truck<br>Loadout only) | Ethanol and denaturant | 800 gal/min       | 03-A-628-S4                   |
|                   | EU59             | Ethanol Loadout - Rail               | none  | Ethanol                | 800 gal/min       | 03-A-628-S4                   |

#### Associated Equipment

#### **Applicable Requirements**

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter      | Authority for Requirement                           |
|-------------------|--------------------|------------|------------|----------------------------|---|
| S12               | 40% <sup>(1)</sup> | 0.09 lb/hr | 0.09 lb/hr | 0.09 lb/hr,<br>0.1 gr/dscf | 03-A-628-S4, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |

<sup>(1)</sup>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: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 0.02 lb/hr, 500ppmv Authority for Requirement: 567 IAC 23.3(3)"e" DNR Construction Permit 03-A-628-S4

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 0.32 lb/hr Authority for Requirement: DNR Construction Permit 03-A-628-S4

Pollutant: Volatile Organic Compounds (VOCs) Emission Limit(s): 6.03 lb/hr Authority for Requirement: DNR Construction Permit 03-A-628-S4

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 0.53 lb/hr Authority for Requirement: DNR Construction Permit 03-A-628-S4

Pollutant: Hazardous Air Pollutant (HAP), Total Emission Limit(s): 0.06 lb/hr Authority for Requirement: DNR Construction Permit 03-A-628-S4

#### **Operational Limits 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 is limited to a maximum production or loadout (loadout by rail or truck) of 88.0 million gallons of denatured ethanol per twelve month rolling period.
- B. The owner or operator is limited to a maximum loadout (loadout by rail or truck) of 2.3 million gallons of denaturant per twelve month rolling period.
- C. The owner or operator shall maintain a record of denatured ethanol loaded out by rail or truck using emission units EU58 and EU59 on a monthly basis, in units of gallons, and then calculate a rolling 12-month total of product loaded out.
- D. The owner or operator shall maintain a record of denaturant loaded out by rail or truck using emission units EU58 and EU59 on a monthly basis, in units of gallons, and then calculate a rolling 12-month total of product loaded out.
- E. The owner or operator shall maintain the flare (CE12) associated with this emission point according to the manufacturer's specifications.
- F. The owner or operator shall maintain a log of all inspection and maintenance activities performed on the flare (CE12) associated with this emission point.

Authority of Requirement: DNR Construction Permit 03-A-628-S4

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S12               | 20  | 20 diameter                   | 3,500                          | 1800                           | Vertical<br>Unobstructed | 03-A-628-S4                  |

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

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

| below.   | g requirements tístea |
|--|-----------------------|
| Agency Approved Operation & Maintenance Plan Required?     | Yes 🗌 No 🖂            |
| Facility Maintained Operation & Maintenance Plan Required? | Yes 🗌 No 🖂            |
| Compliance Assurance Monitoring (CAM) Plan Required?       | Yes 🗌 No 🔀            |
| Authority for Requirement: 567 IAC 22.108(3)               |                       |

| Asso              | ciated Equ       | <u>ipment</u>                | Τ                                    |                                | I                              |                               |
|-------------------|------------------|------------------------------|--------------------------------------|--------------------------------|--------------------------------|-------------------------------|
| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                 | Raw<br>Material                | Rated<br>Capacity              | DNR<br>Construction<br>Permit |
| EU71              | EU55             | Liquefaction Tank #1         |                                      | Mash                           | 45,000 gallons                 |                               |
|                   | EU71             | Liquefaction Tank #2         |                                      | Mash                           | 45,120 gallons                 |                               |
|                   | EU73             | Liquefaction Tank #3         |                                      | Mash                           | 45,120 gallons                 |                               |
|                   | EU74             | Liquefaction Tank #4         |                                      | Mash                           | 45,120 gallons                 |                               |
|                   | EU101            | Liquefaction Tank #5         |                                      | Mash                           | 45,120 gallons                 |                               |
|                   | EU88             | Liquefaction Tank #6         |                                      | Mash                           | 45,120 gallons                 |                               |
|                   | EU31             | De-Gas Vessel                |                                      | Beer Mash                      | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU32             | Beer Stripper #1             |                                      | Beer Mash                      | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU83             | Beer Stripper #2             |                                      | Beer Mash                      | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU33             | Side Stripper #1             | CE20;<br>Fermentation<br>Scrubber #1 | Ethanol &<br>water             | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU84             | Side Stripper #2             |                                      | Ethanol &<br>water             | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU34             | Rectifier #1                 |                                      | Ethanol                        | 31,000 gallons                 |                               |
| S20               | EU85             | Rectifier #2                 |                                      | Ethanol                        | ethanol/hour<br>31,000 gallons | 03-A-622-S11                  |
|                   | EU35             | Molecular Sieve #1           |                                      | Ethanol                        | ethanol/hour<br>31,000 gallons |                               |
|                   |                  |                              |                                      |                                | ethanol/hour<br>31,000 gallons |                               |
|                   | EU87             | Molecular Sieve #2           |                                      | Ethanol                        | ethanol/hour<br>4,000 gallons  |                               |
|                   | EU60             | 200 Proofer Condenser #1     |                                      | Ethanol                        | ethanol/hour                   |                               |
|                   | EU86             | 200 Proofer Condenser #2     |                                      | Ethanol                        | 4,000 gallons ethanol/hour     |                               |
|                   | EU36             | Evaporator #1                |                                      | Beer Bottoms                   | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU82             | Evaporator #2                |                                      | Syrup &<br>Process<br>Vapors   | 31,000 gallons<br>ethanol/hour |                               |
|                   | EU39             | Syrup Tank                   |                                      | Syrup                          | 80,000 gallons                 |                               |
|                   | EU53             | Whole Stillage Tank          | 1                                    | Beer Bottoms                   | 150,000<br>gallons             |                               |
|                   | EU54             | Thin Stillage Tank           |                                      | Thin Stillage                  | 107,000<br>gallons             |                               |
|                   | EU57             | Process Condensate Tank      |                                      | Process<br>Steam<br>Condensate | 101,000<br>gallons             |                               |

# Emission Point ID Number: S20 Fermentation #1 and S30 Fermentation #2

|       | EU30               | Slurry Tank #1  |                                 | Slurry/Mash        | 31,000 gallons<br>slurry/hour |                             |
|-------|--------------------|-----------------|---------------------------------|--------------------|-------------------------------|-----------------------------|
|       | EU42               | Slurry Tank #2  |                                 | Slurry/Mash        | 31,000 gallons slurry/hour    |                             |
|       | EU20               | Yeast Tank #1   |                                 | Yeast &<br>Mash    | 66,000 gallons                |                             |
|       | EU72 Yeast Tank #2 | Yeast &<br>Mash | 45,000 gallons                  |                    |                               |                             |
|       | EU23               | Fermenter #1    |                                 | Yeast &<br>Mash    | 313,680<br>gallons            |                             |
|       | EU24               | Fermenter #2    |                                 | Yeast &<br>Mash    | 313,000<br>gallons            |                             |
|       | EU25               | Fermenter #3    |                                 | Yeast &<br>Mash    | 313,000<br>gallons            |                             |
|       | <b>EU26</b>        | Fermenter #4    | CE20;                           | Yeast &<br>Mash    | 313,680<br>gallons            |                             |
| S20 & | EU99               | Fermenter #5    | Fermentation<br>Scrubber #1 and | Yeast &<br>Mash    | 313,000<br>gallons            | 03-A-622-S11<br>& 16-A-488- |
| S30   | EU100              | Fermenter #6    | CE30;<br>Fermentation           | Yeast &<br>Mash    | 313,000<br>gallons            | \$3                         |
|       | EU27               | Fermenter #7    | Scrubber #2                     | Yeast &<br>Mash    | 313,000<br>gallons            |                             |
|       | EU28               | Fermenter #8    |                                 | Yeast &<br>Mash    | 313,000<br>gallons            |                             |
|       | EU65               | Fermenter #9    |                                 | Yeast &<br>Mash    | 313,000<br>gallons            |                             |
|       | EU66 Fermenter #10 |                 | Yeast &<br>Mash                 | 313,000<br>gallons |                               |                             |
|       | EU67               | Fermenter #11   |                                 | Yeast &<br>Mash    | 313,000<br>gallons            |                             |
|       | EU22 Beer          | Beer Well       |                                 | Yeast &<br>Mash    | 404,190<br>gallons            |                             |

#### **Applicable Requirements**

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter      | Authority for Requirement                                      |
|-------------------|--------------------|------------|------------|----------------------------|--|
| S20 &<br>S30      | 40% <sup>(1)</sup> | 0.20 lb/hr | 0.20 lb/hr | 0.20 lb/hr,<br>0.1 gr/dscf | 03-A-622-S11, 16-A-488-S3, 567 IAC 23.4(7), 567 IAC 23.3(2)"d" |

<sup>(1)</sup> 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: Volatile Organic Compounds (VOCs) Emission Limit(s): 12.0 lb/hr<sup>(1)</sup> Authority for Requirement: DNR Construction Permit 03-A-622-S11, 16-A-488-S3 <sup>(1)</sup> Emission Points S20 and S30, combined. Pollutant: Hazardous Air Pollutant (HAP), Single

Emission Limit(s): 1.87 lb/hr, 8.20 tons/yr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 03-A-622-S11, 16-A-488-S3

<sup>(1)</sup> This limit applies to the following emission sources: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50).

Pollutant: Hazardous Air Pollutant (HAP), Total

Emission Limit(s): 4.50 lb/hr, 19.93 tons/yr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 03-A-622-S11, 16-A-488-S3

<sup>(1)</sup> This limit applies to the following emission sources: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50).

#### **Operational Limits 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 pressure drop of each of the Fermentation Scrubbers (CE20 and CE30) between 1.5 and 29 inches of water column on a continuous basis. The owner or operator shall initiate corrective actions whenever the pressure drop across the scrubber fall outside the range of 1.5 to 29 inches of water column.
  - i. The owner or operator shall record the pressure drop of each of the Fermentation Scrubbers (CE20 and CE30) on a continuous basis. This requirement shall not apply to a scrubber on the days that the scrubber is not in operation; and
  - ii. If the pressure drop deviates outside the range required, the owner or operator shall record the time, date, and actions taken to correct the situation and bring the pressure drop back into the acceptable pressure drop range.
- B. The owner or operator shall maintain the liquid (water) flow rate Fermentation Scrubbers (CE20 and CE30) based on a rolling 3-hour average which is calculated as 90 percent of the average liquid flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations specified in the Applicable Requirements of this Title V permit.
  - i. The owner or operator shall record liquid (water) flow rate of each of the Fermentation Scrubbers (CE20 and CE30) on a continuous basis;
  - ii. The owner or operator shall calculate and record the liquid flow rate based on a rolling 3-hour average; and
- iii. If the flow rate deviates below the minimum flow rate required (i.e., 90% of the flow rate during the most recent performance test that demonstrated compliance), the owner or operator shall record the time, date, and actions taken to correct the situation and when the flow rate is back above the minimum flow rate required.
- C. The owner or operator shall add additive to each of the Fermentation Scrubbers (CE20 and CE30) at a rate greater than or equal to the rate recorded during the most recent performance test demonstrating compliance with all applicable emission limitations specified in the Applicable Requirements of this Title V permit.
  - i. The owner or operator shall record the rate of additive added (additive feed rate) to each of the Fermentation Scrubbers (CE20 and CE30) on a continuous basis; and

- ii. If the additive feed rate deviates below the rate required (i.e., additive feed rate during the most recent performance test that demonstrated compliance), then record the time, date, and actions taken to correct the situation and also when the additive feed rate is back to being greater than or equal to the required additive feed rate.
- D. The owner or operator shall maintain copies of the previous performance tests for each of the Fermentation Scrubbers (CE20 and CE30). The performance tests shall include operating scenario data that detail the scrubber pressure drop, scrubber liquid flow rate, additive feed rate, and average emission rate measured during each performance test that demonstrated compliance with Emission Limits.
- E. The owner or operator shall maintain the Fermentation Scrubbers (CE20 and CE30) according to manufacturer specifications and maintenance schedule.
  - i. The owner or operator shall maintain a record of all inspections/maintenance activities and any action resulting from the inspection/maintenance of the Fermentation Scrubbers (CE20 and CE30).
- F. The owner or operator shall calculate monthly HAP emissions for all sources covered under the HAP emission limit cap: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50) (hereafter referred to as "*all emission limit cap sources*"S), by using the following formula: HAP (tons/month) = average emission rate from most recent performance test that demonstrated compliance with the emission limits in Applicable Requirements of this Title V permit (lb/hr) \* total hours of operation per month (hr/month) \* (1 ton/2000 lb).
- G. On a daily basis, the owner or operator shall record the number of hours that the *all emission limit cap sources* are operated.
- H. The rolling 12-month total amount of Single HAP emissions from the *all emission limit cap sources* shall not exceed 8.20 tons. The rolling 12-month total amount of Total HAP emissions from the *all emission limit cap sources* shall not exceed 19.93 tons. On a monthly basis, the owner or operator shall:
  - i. Record the number of hours that the *all emission limit cap sources* were operated in the previous month;
  - ii. Calculate the total amount of Single HAP and Total HAP emissions from *all emission limit cap sources* during the previous month using the formula detailed in Operational Limit F; and
  - iii. Calculate and record the total amount of Single HAP and Total HAP emissions from *all emission limit cap sources* during the previous 12-month period.
- I. If the rolling 12-month total amount of Single HAP emissions from *all emission limit cap sources* exceeds 6.56 tons, the owner or operator shall begin tracking the rolling 365-day total amount of Single HAP emissions. On a daily basis, the owner or operator shall:
  - i. Calculate and record the total amount of Single HAP emissions from *all emission limit cap sources* during the previous day; and
  - ii. Calculate and record the total amount of Single HAP emissions from *all emission limit cap sources* during the previous 365-day period.

Daily calculations of Single HAP emissions shall continue until the 365-day rolling total amount of Single HAP emissions from *all emission limit cap sources* are below 6.56 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling 12-month Single HAP emissions shall be tracked on a rolling 12-month basis, as specified in Operational Limit H.

- J. If the rolling 12-month total amount of Total HAP emissions from *all emission limit cap sources* exceeds 15.9 tons, the owner or operator shall begin tracking the rolling 365-day total amount of Total HAP emissions. On a daily basis, the owner or operator shall:
  - i. Calculate and record the total amount of Total HAP emissions from *all emission limit cap sources* during the previous day; and
  - ii. Calculate and record the total amount of Total HAP emissions from *all emission limit cap sources* during the previous 365-day period.

Daily calculations of Total HAP emissions shall continue until the 365-day rolling total amount of Total HAP emissions from *all emission limit cap sources* are below 15.9 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling 12-month Total HAP emissions shall be tracked on a rolling 12-month basis, as specified in Operational Limit H.

Authority of Requirement: DNR Construction Permit 03-A-622-S11, 16-A-488-S3

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S20               | 48.2                                      | 15                            | 4,500                          | 80                             | Vertical<br>Unobstructed | 03-A-622-S11                 |
| S30               | 48.2                                      | 15                            | 4,200                          | 80                             | Vertical<br>Unobstructed | 03-A-622-S11,<br>16-A-488-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 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.

| Emission<br>Point | Pollutant | Methodology                     | Frequency            | Test Run<br>Time | Test<br>Methodology  |
|-------------------|-----------|---------------------------------|----------------------|------------------|--|
| S20, S30          | VOC       | Stack Testing <sup>(1)(2)</sup> | Annual               | 1 hour           | 40 CFR 63, Appendix<br>A, Method 320 or<br>40 CFR 60, Appendix<br>A, Method 18 |
|                   | НАР       | Stack Testing <sup>(1)(3)</sup> | Annual               | 1 hour           | 40 CFR 63, Appendix<br>A, Method 320 or<br>40 CFR 60, Appendix<br>A, Method 18 |
|                   | НАР       | Recordkeeping <sup>(4)</sup>    | Rolling 12-<br>Month | NA               | NA   |

**Compliance Demonstration(s) and Performance Testing** 

<sup>(1)</sup> These tests shall be conducted once each calendar year during the months of June, July, or August in a manner to demonstrate compliance with all emission limitations with all equipment operating in a worst case scenario (highest production rate, syrup rate, etc.). The next reoccurring stack test shall be performed in June, July, or August of 2019. <sup>(2)</sup> The EP S20 and S30 VOC stack tests shall be completed simultaneously.

<sup>(3)</sup>Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. Any HAP whose emissions are measured below the detection limit shall be assumed to be emitted at the detection limit.

<sup>(4)</sup>See Operating Requirements for the required recordkeeping.

| 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 Dequirement, 567 IAC 22 109(2)               |            |

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: S37 and S38 Centrifuges #1 and #2

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment | Raw<br>Material   | Rated<br>Capacity     | Construction<br>Permit |
|-------------------|------------------|------------------------------|----------------------|-------------------|-----------------------|------------------------|
| S37               | EU37             | Centrifuge #1                | None                 | Whole<br>Stillage | 190<br>gallons/minute | 10-A-161-S2            |
| S38               | EU38             | Centrifuge #2                | None                 | Whole<br>Stillage | 190<br>gallons/minute | 10-A-162-S2            |

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#### **Applicable Requirements**

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

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

| Emission<br>Point | Opacity | PM-10      | Particulate<br>Matter | Authority for Requirement                              |
|-------------------|---------|------------|-----------------------|--|
| <b>S</b> 37       | 40%(1)  | 0.09 lb/hr | 0.1 gr/dscf           | 10-A-161-S2, 567 IAC 23.3(2)"a", 567<br>IAC 23.3(2)"d" |
| S38               | 40%(1)  | 0.09 lb/hr | 0.1 gr/dscf           | 10-A-162-S2, 567 IAC 23.3(2)"a", 567<br>IAC 23.3(2)"d" |

<sup>(1)</sup>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: Volatile Organic Compounds (VOCs) Emission Limit(s): 0.83 lb/hr Authority for Requirement: DNR Construction Permit 10-A-161-S2, 10-A-162-S2

Pollutant: Hazardous Air Pollutant (HAP), Single and Total Emission Limit(s): 0.01 lb/hr Authority for Requirement: DNR Construction Permit 10-A-161-S2, 10-A-162-S2

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------|------------------------------|
| S37               | 25  | 6                             | 100                            | Ambient                        | Horizontal         | 10-A-161-S2                  |
| S38               | 25  | 6                             | 100                            | Ambient                        | Horizontal         | 10-A-162-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 below. | g requirements listed |
|--|-----------------------|
| Agency Approved Operation & Maintenance Plan Required?                       | Yes 🗌 No 🖂            |
| Facility Maintained Operation & Maintenance Plan Required?                   | Yes 🗌 No 🖂            |
| Compliance Assurance Monitoring (CAM) Plan Required?                         | Yes 🗌 No 🖂            |
| Authority for Requirement: 567 IAC 22.108(3)                                 |                       |

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

| Emission<br>Point | <u>ated Equipr</u><br>Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment  | Raw<br>Material                         | Rated<br>Capacity  | Construction<br>Permit |
|-------------------|--|------------------------------|---|---|--|------------------------|
| S40 RTO #1        | EU40                                   | DDGS Dryer #1                | CE40; Multi<br>Cyclone & CE42;<br>Regenerative<br>Thermal Oxidizer;<br>Maximum Heat<br>Input: 16<br>MMBtu/hr) | Dried<br>Distillers<br>Grains<br>(DDGS) | Heat Input: 50<br>MMBtu/hr;<br>Maximum<br>Capacity:<br>11.39 tons of<br>dried DDGS<br>per hour | 03-A-624-S9            |
| S50 RTO #2        | EU68                                   | DDGS Dryer A                 | CE50; Regenerative<br>Thermal Oxidizer;<br>Maximum Heat<br>Input: 13.5<br>MMBtu/hr)                           | Dried<br>Distillers<br>Grains<br>(DDGS) | Heat Input: 40<br>MMBtu/hr;<br>Maximum<br>Capacity: 15.0<br>tons of dried<br>DDGS per<br>hour  |                        |
|                   | EU69                                   | DDGS Dryer B                 |   | Dried<br>Distillers<br>Grains<br>(DDGS) | Heat Input: 40<br>MMBtu/hr;<br>Maximum<br>Capacity: 15.0<br>tons of dried<br>DDGS per<br>hour  | 16-A-490-S2            |
|                   | EU77                                   | Centrifuge #3                |   |   | 255<br>gallons/minute  |                        |
|                   | EU78                                   | Centrifuge #4                |   | Whole                                   | 255<br>gallons/minute  |                        |
| \$70              | EU77                                   | Centrifuge #3                | None  | Stillage                                | 255<br>gallons/minute  | 16-A-493-S1            |
| \$79              | EU78                                   | Centrifuge #4                | None  |   | 255<br>gallons/minute  | 10-A-493-31            |

## Associated Equipment

#### **Applicable Requirements**

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter      | Authority for Requirement                           |
|-------------------|--------------------|------------|------------|----------------------------|---|
| S40               | 40%(1)             | 6.51 lb/hr | 6.51 lb/hr | 6.51 lb/hr,<br>0.1 gr/dscf | 03-A-624-S9, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |
| S50               | 40%(1)             | 9.0 lb/hr  | 9.9 lb/hr  | 9.9 lb/hr,<br>0.1 gr/dscf  | 16-A-490-S2, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |
| S79               | 40% <sup>(2)</sup> | NA         | NA         | 0.1 gr/dscf                | 16-A-493-S1, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |

<sup>(1)</sup>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).

<sup>(2)</sup> An exceedance of the indicator opacity of 25% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)
Emission Limit(s): S40: 9.81 lb/hr S50: 10.0 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2
Pollutant: Nitrogen Oxides (NO<sub>x</sub>)
Emission Limit(s): S40: 16.0 lb/hr S50: 9.30 lb/hr
Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2
Pollutant: Volatile Organic Compounds (VOCs)
Emission Limit(s): S40: 15.0 lb/hr, 73.0 lb/hr<sup>(1)</sup>

Emission Limit(s): S40: 15.0 lb/hr, 73.9 lb/hr<sup>(1)</sup> S50: 10.6 lb/hr S79: 0.24 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2, 16-A-493-S1 <sup>(1)</sup> This limit applies to DDGS Dryer #1 (EU40) when the emission unit discharges directly to EP S40 without operation of the Regenerative Thermal Oxidizer (CE42).

Pollutant: Carbon Monoxide (CO) Emission Limit(s): S40: 13.75 lb/hr S50: 18.0 lb/hr Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2

Pollutant: Hazardous Air Pollutant (HAP), Single Emission Limit(s): S40: 1.87 lb/hr, 12.5 lb/hr<sup>(1)(2)</sup>, 8.20 tons/yr<sup>(3)</sup> S50: 1.87 lb/hr, 8.20 tons/yr<sup>(3)</sup> S79: 0.01 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2, 16-A-493-S1 <sup>(1)</sup>This limit applies to DDGS Dryer #1 (EU40) when the emission unit discharges directly to EP S40 without operation of the Regenerative Thermal Oxidizer (CE42).

<sup>(2)</sup>These limits apply during RTO (CE42) bypass conditions. The RTO (CE42) bypass emissions are not subject to the combined Single HAP and Total HAP emission limits specified in Footnote 3.

<sup>(3)</sup> This limit applies to the following emission sources: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50).

Pollutant: Hazardous Air Pollutant (HAP), Total Emission Limit(s): S40: 4.50 lb/hr, 30.2 lb/hr<sup>(1)(2)</sup>, 19.93 tons/yr<sup>(3)</sup> S50: 4.50 lb/hr, 19.93 tons/yr<sup>(3)</sup> S79: 0.01 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2, 16-A-493-S1 <sup>(1)</sup>This limit applies to DDGS Dryer #1 (EU40) when the emission unit discharges directly to EP S40 without operation of the Regenerative Thermal Oxidizer (CE42).

<sup>(2)</sup>These limits apply during RTO (CE42) bypass conditions. The RTO (CE42) bypass emissions are not subject to the combined Single HAP and Total HAP emission limits specified in Footnote 3 below.

<sup>(3)</sup> This limit applies to the following emission sources: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50).

#### **Operational Limits 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 a 3-hour average operating temperature no less than 50 degrees Fahrenheit below the average operating temperature of Regenerative Thermal Oxidizers (CE42 and CE50) recorded during the most recent performance test that demonstrated compliance with the emission limits specified in the Applicable Requirements of this Title V permit. The owner or operator shall:
  - i. Record the operating temperatures, in degrees Fahrenheit, of the Regenerative Thermal Oxidizers (CE42 and CE50) on an hourly basis; and
  - ii. On an hourly basis, calculate and record the three-hour average operating temperatures, in degrees Fahrenheit, of the Regenerative Thermal Oxidizers (CE42 and CE50).
- B. The owner or operator shall operate the Regenerative Thermal Oxidizers (CE42 and CE50) at all times the emission units listed in this collection of permits are in operation except for bypass periods.
  - i. DDGS Dryer #1 (EU40) shall not bypass the Regenerative Thermal Oxidizer (CE42) more than 150 hours per rolling 12-month period. On a monthly basis, the owner or operator shall record the number of hours that the Regenerative Thermal Oxidizer (CE42) was bypassed in the previous month and calculate and record the rolling 12-month total number of hours that the Regenerative Thermal Oxidizer (CE42) was bypassed.
  - ii. Centrifuges #3 and #4 (EU77 and EU78) shall not bypass the Regenerative Thermal Oxidizers (CE50) more than 500 hours per rolling 12-month period. On a monthly basis, the owner or operator shall record the number of hours that the Regenerative Thermal Oxidizer (CE50) was bypassed in the previous month and calculate and record the rolling 12-month total number of hours that the Regenerative Thermal Oxidizer (CE50) was bypassed.
- C. The owner or operator shall combust only natural gas and/or process off gasses in the DDGS Dryers (EU40, EU68, and EU69) and the Regenerative Thermal Oxidizers (CE42 and CE50).
- D. The owner or operator shall operate and maintain the control equipment (CE40, CE42, and CE50) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the control equipment (CE40, CE42, and CE50). This log shall include, but is not limited to:
  - i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;

- ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
- iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
- iv. Identification of the staff member performing the inspection or maintenance activity.
- E. The owner or operator shall calculate monthly HAP emissions for all sources covered under the HAP emission limit cap: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50) (hereafter referred to as "*all emission limit cap sources*"), by using the following formula: HAP (tons/month) = average emission rate from most recent performance test that demonstrated compliance with the emission limits in the Applicable Requirements of this Title V permit. (lb/hr) \* total hours of operation per month (hr/month) \* (1 ton/2000 lb).
- F. On a daily basis, the owner or operator shall record the number of hours that the *all emission limit cap sources* are operated.
- G. The rolling 12-month total amount of Single HAP emissions from the *all emission limit cap sources* shall not exceed 8.20 tons. The rolling 12-month total amount of Total HAP emissions from the *all emission limit cap sources* shall not exceed 19.93 tons. On a monthly basis, the owner or operator shall:
  - iv. Record the number of hours that the *all emission limit cap sources* were operated in the previous month;
  - v. Calculate the total amount of Single HAP and Total HAP emissions from *all emission limit cap sources* during the previous month using the formula detailed in Operational Limit E; and
  - vi. Calculate and record the total amount of Single HAP and Total HAP emissions from *all emission limit cap sources* during the previous 12-month period.
- H. If the rolling 12-month total amount of Single HAP emissions from *all emission limit cap sources* exceeds 6.56 tons, the owner or operator shall begin tracking the rolling 365-day total amount of Single HAP emissions. On a daily basis, the owner or operator shall:
  - iii. Calculate and record the total amount of Single HAP emissions from *all emission limit cap sources* during the previous day; and
  - iv. Calculate and record the total amount of Single HAP emissions from *all emission limit cap sources* during the previous 365-day period.

Daily calculations of Single HAP emissions shall continue until the 365-day rolling total amount of Single HAP emissions from *all emission limit cap sources* are below 6.56 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling 12-month Single HAP emissions shall be tracked on a rolling 12-month basis, as specified in Operational Limit G.

- I. If the rolling 12-month total amount of Total HAP emissions from *all emission limit cap sources* exceeds 15.9 tons, the owner or operator shall begin tracking the rolling 365-day total amount of Total HAP emissions. On a daily basis, the owner or operator shall:
  - iii. Calculate and record the total amount of Total HAP emissions from all emission limit

cap sources during the previous day; and

iv. Calculate and record the total amount of Total HAP emissions from *all emission limit cap sources* during the previous 365-day period.

Daily calculations of Total HAP emissions shall continue until the 365-day rolling total amount of Total HAP emissions from *all emission limit cap sources* are below 15.9 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling 12-month Total HAP emissions shall be tracked on a rolling 12-month basis, as specified in Operational Limit G.

Authority for Requirement: DNR Construction Permit 03-A-624-S9, 16-A-490-S2, 16-A-493-S1

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S40               | 75.5                                      | 44.4                          | 24,400                         | 415                            | Vertical<br>Unobstructed | 03-A-624-S9                  |
| S50               | 125                                       | 84                            | 67,700                         | 415                            | Vertical<br>Unobstructed | 16-A-490-S2                  |
| S79               | 25  | 6                             | 10                             | 152                            | Horizontal               | 16-A-493-S1                  |

**Emission Point Characteristics** 

These emission points shall conform to the specifications listed below.

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.

| Emission | Pollutant                            | Methodology                  | Frequency                            | Test                                       | Test Methodology  |
|----------|--------------------------------------|------------------------------|--------------------------------------|--|---|
| Point    |                                      |                              |                                      | Run  |   |
|          |                                      |                              |                                      | Time                                       |   |
|          | PM (State)                           | Stack Testing                | Every 36 months <sup>(1)</sup>       | 1 hour                                     | 40 CFR 60, Appendix A, Method 5;<br>40 CFR 51, Appendix M, 201A with<br>202 |
|          | PM <sub>10</sub> , PM <sub>2.5</sub> | Stack Testing                | Every 36<br>months <sup>(1)</sup>    | 1 hour 40 CFR 51, Appendix M, 201A wit 202 |   |
|          | NO <sub>x</sub>                      | Stack Testing                | Every 36<br>months <sup>(1)</sup>    | 1 hour                                     | 40 CFR 60, Appendix A, Method 7E  |
| S40, S50 | VOC                                  | Stack Testing                | Every 36 months <sup>(1)</sup>       | 1 hour                                     | 40 CFR 63, Appendix A, Method<br>320 or<br>40 CFR 60, Appendix A, Method 18 |
|          | СО                                   | Stack Testing                | Every 36<br>months <sup>(1)</sup>    | 1 hour                                     | 40 CFR 60, Appendix A, Method 10  |
|          | НАР                                  | Stack Testing                | Every 36<br>months <sup>(1)(2)</sup> | 1 hour                                     | 40 CFR 63, Appendix A, Method<br>320 or<br>40 CFR 60, Appendix A, Method 18 |
|          | НАР                                  | Recordkeeping <sup>(3)</sup> | Rolling 12-<br>month                 | NA   | NA  |

#### Compliance Demonstration(s) and Performance Testing

<sup>(1)</sup>These tests shall be conducted once every 36 months with a minimum of 6 months between tests in a manner to demonstrate compliance with all emission limitations with all equipment operating in a worst case scenario (i.e. highest production rate). The tests shall be completed with all equipment operating under normal conditions (i.e. no RTO bypass). The next reoccurring stack tests shall be performed prior to July 19, 2021 for EP S40 and February 8, 2021 for EP S50.

<sup>(2)</sup>Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. Any HAP whose emissions are measured below the detection limit shall be assumed to be emitted at the detection limit.

<sup>(3)</sup>See Operating Requirements for the required recordkeeping.

Authority for Requirement: DNR Construction Permit 03-A-624-S9 DNR Construction Permit 16-A-490-S2

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

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

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment          | Raw<br>Material                         | Rated<br>Capacity      | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------|---|------------------------|-------------------------------|
| S41               | EU41             | DDGS Cooler #1               | CE41; Pulse Jet<br>Baghouse   | Dried<br>Distillers<br>Grains<br>(DDGS) | 12.5 tons<br>DDGS/hour | 03-A-625-S7                   |
| S42               | EU43             | DDGS Cooler #2               | CE42-2; Pulse Jet<br>Baghouse | Dried<br>Distillers<br>Grains<br>(DDGS) | 20.5 tons<br>DDGS/hour | 16-A-491-S2                   |

Associated Equipment

#### Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-2.5    | PM-10     | Particulate<br>Matter     | Authority for Requirement                           |
|-------------------|--------------------|-----------|-----------|---------------------------|---|
| S41               | 40% <sup>(1)</sup> | 1.0 lb/hr | 1.0 lb/hr | 1.0 lb/hr,<br>0.1 gr/dscf | 03-A-625-S7, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |
| S42               | 40% <sup>(1)</sup> | 4.0 lb/hr | 4.0 lb/hr | 4.0 lb/hr,<br>0.1 gr/dscf | 16-A-491-S2, 567 IAC 23.4(7), 567<br>IAC 23.3(2)"d" |

<sup>(1)</sup>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: Volatile Organic Compounds (VOCs) Emission Limit(s): S41: 4.10 lb/hr S42: 4.56 lb/hr

Authority for Requirement: DNR Construction Permit 03-A-625-S7, 16-A-491-S2

Pollutant: Hazardous Air Pollutant (HAP), Single Emission Limit(s): S41: 1.87 lb/hr, 8.20 tons/yr<sup>(1)</sup> S42: 1.87 lb/hr, 8.20 tons/yr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 03-A-625-S7, 16-A-491-S2 <sup>(1)</sup> This limit applies to the following emission sources: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50).

Pollutant: Hazardous Air Pollutant (HAP), Total Emission Limit(s): S41: 4.50 lb/hr, 19.93 tons/yr<sup>(1)</sup> S42: 4.50 lb/hr, 19.93 tons/yr<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 03-A-625-S7, 16-A-491-S2 <sup>(1)</sup>This limit applies to the following emission sources: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50).

# **Operational Limits 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 operate and maintain the control equipment (CE41 and CE42-2) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year. The owner or operator shall log all maintenance and inspection activities performed on the control equipment (CE41 and CE42-2). This log shall include, but is not limited to:
  - i. The date and time any inspection and/or maintenance was performed on the emission unit and/or control equipment;
  - ii. Any issue(s) identified during the inspection and the date each issue(s) was resolved;
  - iii. Any issue(s) addressed during the maintenance activities and the date each issue(s) was resolved; and,
  - iv. Identification of the staff member performing the inspection or maintenance activity.
- B. The owner or operator shall calculate monthly HAP emissions for all sources covered under the HAP emission limit cap: Fermentation (EP S20 and EP S30) and Centrifuges and DDGS Dryers (EP S40, EP S41, EP S42, and EP S50) (hereafter referred to as "*all emission limit cap sources*"), by using the following formula: HAP (tons/month) = average emission rate from most recent performance test that demonstrated compliance with the emission limits in the Applicable Requirements of this Title V permit (lb/hr) \* total hours of operation per month (hr/month) \* (1 ton/2000 lb).
- C. On a daily basis, the owner or operator shall record the number of hours that the *all emission limit cap sources* are operated.
- D. The rolling 12-month total amount of Single HAP emissions from the *all emission limit cap sources* shall not exceed 8.20 tons. The rolling 12-month total amount of Total HAP emissions from the *all emission limit cap sources* shall not exceed 19.93 tons. On a monthly basis, the owner or operator shall:
  - i. Record the number of hours that the *all emission limit cap sources* were operated in the previous month;
  - ii. Calculate the total amount of Single HAP and Total HAP emissions from *all emission limit cap sources* during the previous month using the formula detailed in Operating Requirements B; and
  - iii. Calculate and record the total amount of Single HAP and Total HAP emissions from *all emission limit cap sources* during the previous 12-month period.
- E. If the rolling 12-month total amount of Single HAP emissions from *all emission limit cap sources* exceeds 6.56 tons, the owner or operator shall begin tracking the rolling 365-day total amount of Single HAP emissions. On a daily basis, the owner or operator shall:
  - i. Calculate and record the total amount of Single HAP emissions from *all emission limit cap sources* during the previous day; and

ii. Calculate and record the total amount of Single HAP emissions from *all emission limit cap sources* during the previous 365-day period.

Daily calculations of Single HAP emissions shall continue until the 365-day rolling total amount of Single HAP emissions from *all emission limit cap sources* are below 6.56 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling 12-month Single HAP emissions shall be tracked on a rolling 12-month basis, as specified in Operational Requirements D.

- F. If the rolling 12-month total amount of Total HAP emissions from *all emission limit cap sources* exceeds 15.9 tons, the owner or operator shall begin tracking the rolling 365-day total amount of Total HAP emissions. On a daily basis, the owner or operator shall:
  - i. Calculate and record the total amount of Total HAP emissions from *all emission limit cap sources* during the previous day; and
  - ii. Calculate and record the total amount of Total HAP emissions from *all emission limit cap sources* during the previous 365-day period.

Daily calculations of Total HAP emissions shall continue until the 365-day rolling total amount of Total HAP emissions from *all emission limit cap sources* are below 15.9 tons for the remainder of the current calendar month plus one additional calendar month. At that time, rolling 12-month Total HAP emissions shall be tracked on a rolling 12-month basis, as specified in Operational Requirements D.

Authority for Requirement: DNR Construction Permit 03-A-625-S7, 16-A-491-S2

# **Emission Point Characteristics**

 These emission points shall conform to the specifications listed below.

 Stack Height,
 Stack
 Exhaust

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S41               | 64.9                                      | 36                            | 8,200                          | 110                            | Vertical<br>Unobstructed | 03-A-625-S7                  |
| S42               | 85.5                                      | 40                            | 26,500                         | 110                            | Vertical<br>Unobstructed | 16-A-491-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.

| Pollutant | Methodology                  | Frequency                            | Test Run<br>Time | Test Methodology   |
|-----------|------------------------------|--------------------------------------|------------------|--|
| VOC       | Stack Testing                | Every 36<br>months <sup>(1)</sup>    | 1 hour           | 40 CFR 60, Appendix A,<br>Method 5<br>40 CFR 51, Appendix M<br>Method 202      |
| НАР       | Stack Testing                | Every 36<br>months <sup>(1)(2)</sup> | 1 hour           | 40 CFR 63, Appendix A,<br>Method 320 or<br>40 CFR 60, Appendix A,<br>Method 18 |
| НАР       | Recordkeeping <sup>(3)</sup> | Rolling 12-<br>Month                 | NA               | NA   |

#### **Compliance Demonstration(s) and Performance Testing**

<sup>(1)</sup>These tests shall be conducted once every 36 months with a minimum of 6 months between tests in a manner to demonstrate compliance with all emission limitations with all equipment operating in a worst case scenario (i.e. highest production rate). The tests shall be completed with all equipment operating under normal conditions (i.e. no RTO bypass). The next reoccurring stack tests shall be performed prior to February 8, 2021 for EP S41 and February 7, 2021 for EP S42.

<sup>(2)</sup>Acrolein, acetaldehyde, formaldehyde, and methanol shall be tested for specifically. Any HAP whose emissions are measured below the detection limit shall be assumed to be emitted at the detection limit.

<sup>(3)</sup> See Operational Limits for the required recordkeeping.

Authority for Requirement: DNR Construction Permit 03-A-625-S7, 16-A-491-S2

| Agency Approved Operation & Maintenance Plan Required?     | Yes 🛛 No 🗌 |
|--|------------|
| See Appendix B for Agency O&M plan.                        |            |
| Facility Maintained Operation & Maintenance Plan Required? | Yes 🗌 No 🖂 |
| Compliance Assurance Monitoring (CAM) Plan Required?       | Yes 🗌 No 🖂 |
| Authority for Requirement: 567 IAC 22.108(3)               |            |

# Emission Point ID Number: S70 Utility Boiler #1

#### DNR Emission Emission **Emission Unit** Construction Control Raw Rated Description Equipment Material Capacity Permit Point Unit 92.4 S70 EU70 Utility Boiler #1 Low NOx Burner Natural Gas 04-A-192-S4 MMBtu/hr

Associated Equipment

# Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-2.5    | PM-10     | Particulate<br>Matter      | Authority for Requirement                              |
|-------------------|--------------------|-----------|-----------|----------------------------|--|
| S70               | 40% <sup>(1)</sup> | 1.0 lb/hr | 1.0 lb/hr | 1.0 lb/hr,<br>0.6 lb/MMBtu | 04-A-192-S4, 567 IAC 23.3(2)"b", 567<br>IAC 23.3(2)"d" |

<sup>(1)</sup>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: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 0.10 lb/hr, 500ppmv Authority for Requirement: 567 IAC 23.3(3)"e" DNR Construction Permit 04-A-192-S4

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 9.1 lb/hr Authority for Requirement: DNR Construction Permit 04-A-192-S4

Pollutant: Volatile Organic Compounds (VOCs) Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 04-A-192-S4

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 7.5 lb/hr Authority for Requirement: DNR Construction Permit 04-A-192-S4

Pollutant: Hazardous Air Pollutant (HAP), Total Emission Limit(s): 0.17 lb/hr Authority for Requirement: DNR Construction Permit 04-A-192-S4

# **Operational Limits 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. Per 40 CFR §60.48c(f)(4), the owner or operator shall record and maintain records of fuel supplier certification, which is to include the following information:
  - The name of the supplier of the fuel;
  - The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and
  - The method used to determine the potential sulfur emissions rate of the fuel.
- B. Per 40 CFR §60.48c(g)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each operating day. As an alternative to this requirement per 40 CFR §60.48c(g)(2) and 40 CFR §60.48c(g)(3), the owner or operator may elect to either:
  - record and maintain records of the amount of each fuel combusted during each calendar month [See 40 CFR §60.48c(g)(2)] or
  - record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month [See 40 CFR §60.48c(g)(3)].

Authority for Requirement: DNR Construction Permit 04-A-192-S4

| EU ID | Subpart | Title   | State Reference<br>(567 IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|------------------------------|-------------------------------|
|       | А       | General Provisions  | 23.1(2)                      | §60.1 – §60.19                |
| EU70  | Dc      | Standards of Performance for Small Industrial-<br>Commercial-Institutional Steam Generating Units | 23.1(2)"111"                 | §60.40c – §60.48c             |

# NSPS Requirements

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S70               | 47.8                                      | 36, diameter                  | 14,100                         | 325                            | Vertical<br>Unobstructed | 04-A-192-S4                  |

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

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

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

# **Emission Point ID Number: S90 Fire Pump Engine**

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment | Raw<br>Material | Rated<br>Capacity                          | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|----------------------|-----------------|--|-------------------------------|
| S90               | EU90             | Fire Pump Engine             | None                 | Diesel          | 575 bhp; 25<br>gallons diesel<br>fuel/hour | 04-A-1100-S3                  |

Associated Equipment

# Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-10      | Particulate<br>Matter      | Authority for Requirement                            |
|-------------------|--------------------|------------|----------------------------|--|
| <b>S</b> 90       | 40% <sup>(1)</sup> | 1.60 lb/hr | 1.60 lb/hr,<br>0.1 gr/dscf | 04-A-1100-S3, 567 IAC 23.3(2)"a", 567 IAC 23.3(2)"d" |

<sup>(1)</sup>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: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 1.78 lb/hr, 2.5 lb/MMBtu Authority for Requirement: 567 IAC 23.3(3)"b"(2) DNR Construction Permit 04-A-1100-S3

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 19.60 lb/hr Authority for Requirement: DNR Construction Permit 04-A-1100-S3

Pollutant: Volatile Organic Compounds (VOCs) Emission Limit(s): 1.56 lb/hr Authority for Requirement: DNR Construction Permit 04-A-1100-S3

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 4.20 lb/hr Authority for Requirement: DNR Construction Permit 04-A-1100-S3

# **Operational Limits 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 emission unit shall only combust diesel fuel. The sulfur content of the fuel shall not exceed 0.5% by weight. The owner or operator shall retain records of the type of fuel used in this emission unit and certify the sulfur content of the fuel.
- B. The owner or operator shall install a non-resettable hour meter.
- C. The owner or operator shall change the oil and filter on this emission unit every 500 hours of operation or annually, whichever comes first.
- D. The owner or operator shall inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first. The owner or operator shall replace the air cleaner as necessary.
- E. The owner or operator shall inspect all hoses and belts on this emission unit every 500 hours of operation or annually, whichever comes first. The owner or operator shall replace hoses and belts as necessary.
- F. This emission unit shall not operate more than 500 hours per rolling 12-month period.
- G. This engine is limited to operate as an emergency stationary RICE as defined in 40 CFR §63.6675 and in accordance with 40 CFR §63.6640(f). There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition F. is not exceeded. In accordance with 40 CFR §63.6640(f), the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing.
- H. The engine is allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used to generate income for the facility to supply power to the electric grid or otherwise supply nonemergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.
- I. The owner or operator shall minimize the amount of time that the emission unit is idle during startup and minimize the amount of startup time necessary for appropriate and safe loading of the engine, not to exceed thirty (30) minutes.
- J. The owner or operator shall maintain the following monthly records:
  - i. The number of hours that the engine operated for maintenance checks and readiness testing;
  - ii. The number of hours that the engine operated for allowed non-emergency operations;
  - iii. The total number of hours that the engine operated; and,
  - iv. The rolling 12-month total amount of the number of hours that the engine operated.
- K. The owner or operator shall maintain the following annual records:
  - i. The number of hours that the engine operated for maintenance checks and readiness testing; and,
  - ii. The number of hours that the engine operated for allowed non-emergency operations.

Authority for Requirement: DNR Construction Permit 04-A-1100-S3

# **NESHAP Requirements**

| EU ID | Subpart | Title   | Туре                               | State Reference<br>(567 IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|------------------------------------|------------------------------|-------------------------------|
|       | А       | General Provisions  | NA                                 | 23.1(4)                      | §63.1 – §63.15                |
| EU90  | ZZZZ    | National Emissions Standards for<br>Hazardous Air Pollutants for<br>Stationary Reciprocating Internal<br>Combustion Engines | Emergency<br>Stationary<br>SI RICE | 23.1(4)"cz"                  | \$63.6580 –<br>\$63.6675      |

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

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

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that 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 Paguiroment: $567 \text{ LAC} 22 108(2)$     |            |

Authority for Requirement: 567 IAC 22.108(3)

# Emission Point ID Number: S110 Utility Boiler #2

#### DNR Emission Emission **Emission Unit** Construction Control Raw Rated Description Equipment Material Capacity Permit Point Unit 92.1 S110 EU110 Utility Boiler #2 None Natural Gas 16-A-483 MMBtu/hour

Associated Equipment

# Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter       | Authority for Requirement                           |
|-------------------|--------------------|------------|------------|-----------------------------|---|
| S110              | 40% <sup>(1)</sup> | 0.69 lb/hr | 1.40 lb/hr | 1.40 lb/hr,<br>0.6 lb/MMBtu | 16-A-483, 567 IAC 23.3(2)"b", 567<br>IAC 23.3(2)"d" |

<sup>(1)</sup>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: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 0.10 lb/hr, 500 ppmv Authority for Requirement: 567 IAC 23.3(3)"e" DNR Construction Permit 16-A-483

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 9.0 lb/hr Authority for Requirement: DNR Construction Permit 16-A-483

Pollutant: Volatile Organic Compounds (VOCs) Emission Limit(s): 0.50 lb/hr Authority for Requirement: DNR Construction Permit 16-A-483

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 7.6 lb/hr Authority for Requirement: DNR Construction Permit 16-A-483

Pollutant: Hazardous Air Pollutant (HAP), Total Emission Limit(s): 0.17 lb/hr Authority for Requirement: DNR Construction Permit 16-A-483

# **Operational Limits 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:

- B. Per 40 CFR §60.48c(f)(4), the owner or operator shall record and maintain records of fuel supplier certification, which is to include the following information:
  - The name of the supplier of the fuel;
  - The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and
  - The method used to determine the potential sulfur emissions rate of the fuel.
- C. Per 40 CFR §60.48c(g)(1), the owner or operator shall record and maintain records of the amount of each fuel combusted during each operating day. As an alternative to this requirement per 40 CFR §60.48c(g)(2) and 40 CFR §60.48c(g)(3), the owner or operator may elect to either:
  - record and maintain records of the amount of each fuel combusted during each calendar month [See 40 CFR §60.48c(g)(2)] or
  - record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month [See 40 CFR §60.48c(g)(3)].

Authority for Requirement: DNR Construction Permit 16-A-483

# **NSPS Requirements**

| EU ID | Subpart | Title   | State Reference<br>(567 IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|------------------------------|-------------------------------|
| EU110 | А       | General Provisions  | 23.1(2)                      | §60.1 – §60.19                |
|       | Dc      | Standards of Performance for Small Industrial-<br>Commercial-Institutional Steam Generating Units | 23.1(2)"111"                 | §60.40c – §60.48c             |

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S110              | 47.8                                      | 36, diameter                  | 14,100                         | 325                            | Vertical<br>Unobstructed | 16-A-483                     |

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.

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

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

# **Emission Point ID Number: FS001 Grain Receiving Fugitives**

# Associated Equipment

Associated Emission Unit ID Numbers: FS001 Emissions Control Equipment ID Number: None Emissions Control Equipment Description: NA Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: FS001 Emission Unit Description: Grain Receiving Fugitives Raw Material/Fuel: Grain

# **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 🖂 |
| Another sites from $\mathbf{D}_{\mathbf{r}}$ and $\mathbf{E}_{\mathbf{r}}$ (A. (22) 109(2) |            |

Authority for Requirement: 567 IAC 22.108(3)

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

| Emission<br>Point                      | Emission<br>Unit | Emission Unit<br>Description      | Control<br>Equipment                            | Raw<br>Material                | Rated<br>Capacity         | DNR<br>Construction<br>Permit |
|--|------------------|-----------------------------------|---|--------------------------------|---------------------------|-------------------------------|
| S80<br>(vents                          | FS002            | DDGS Loadout                      | CE02; DDGS                                      | Dried                          | 11.5 tons<br>DDGS/hour    |                               |
| inside<br>DDGS<br>Storage<br>Building) | FS006            | Wetcake Production and<br>Storage | Handling Filter-<br>Dried DDGS<br>Handling Only | Distillers<br>Grains<br>(DDGS) | 38.0 tons<br>wetcake/hour | 04-A-191-S2                   |

#### Associated Equipment

# Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-10      | Particulate<br>Matter      | Authority for Requirement                        |
|-------------------|--------------------|------------|----------------------------|--|
| S80               | 40% <sup>(1)</sup> | 0.50 lb/hr | 0.50 lb/hr,<br>0.1 gr/dscf | 04-A-191-S2, 567 IAC 23.4(7), 567 IAC 23.3(2)"d" |

<sup>(1)</sup>An exceedance of the indicator opacity of "No Visible Emissions" from the DDGS Storage Building 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).

# **Operational Limits 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. PLCP, LLLP. (Plant No. 42-08-001) is limited to a maximum production of 107,805 tons of Distillers Grains (DDGS ~10% Moisture Content, Modified ~50% Moisture Content and Wetcake) based on dry basis per twelve month rolling period.
- B. PLCP, LLLP. (Plant No. 42-08-001) is limited to annual wet cake production of 33,690 tons per calendar year (wet basis) to avoid initial compliance testing for VOC and HAP emissions. Upon such time in which PLCP, LLLP exceeds annual wet cake production of 33,690 tons per calendar year (wet basis), PLCP, LLLP is required to conduct initial compliance testing on VOC and HAP emissions from Wet Cake Production/storage. Once the initial compliance threshold is exceeded, PLCP, LLLP is required to notify the Department within 30 days and request guidance on how initial compliance testing for VOC and HAPs shall be conducted on Wet Cake production/storage.
- C. Maintain DDGS Handling Filter (CE02) according to manufacturer specifications and maintenance schedule.

# **Recordkeeping Requirements**

- A. On a Monthly basis, the owner or operator shall keep records of the amount of Distillers Grains (DDGS ~10% Moisture Content, Modified ~50% Moisture Content and Wetcake) produced at PLCP, LLLP in tons. Calculate and record rolling 12-month totals.
- B. Record on annual calendar basis, the amount of Wet Cake produced at PLCP, LLLP (Plant No. 42-08-001) in tons on a wet basis.
- C. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of DDGS Handling Filter (CE02).

Authority for Requirement: DNR Construction Permit 04-A-191-S2

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point  | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|--------------------|---|-------------------------------|--------------------------------|--------------------------------|--------------------------|------------------------------|
| S80 <sup>(1)</sup> | 20.0                                      | 14.4 X 14.4                   | 5,916                          | Ambient                        | Vertical<br>Unobstructed | 04-A-191-S2                  |

<sup>(1)</sup>Emission Point S80 vents inside the DDGS Storage Building.

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

# **Monitoring Requirements**

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

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

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

#### DNR Emission Emission **Emission Unit** Control Raw Rated Construction Point Unit Description Equipment Material Capacity Permit Paved Road **Fugitive Dust Emissions** Sweeping and Dust FS003 FS003 from Truck Traffic-06-A-832-S2 None None Suppressant Paved and Unpaved Application

### Associated Equipment

# **Applicable Requirements**

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

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

| Emission<br>Point | Opacity | Particulate<br>Matter<br>(Paved) | Particulate<br>Matter<br>(Unpaved) | Authority for Requirement          |
|-------------------|---------|----------------------------------|------------------------------------|------------------------------------|
| FS003             | (1)     | 12.0<br>tons/year <sup>(2)</sup> | 2.0<br>tons/year <sup>(3)</sup>    | 06-A-832-S2, 567 IAC 23.3(2)"c"(1) |

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

<sup>(2)</sup>Particulate emission limit based on an average vehicle weight of 29.0 tons, silt content of 1.0 grams per square meter, and all raw material/product is shipped or received by truck. PM emission limit established to reduce potential emissions from PLCP, LLLP and establish truck haul road best management practices (BMP). See Operational Limits and Monitoring Requirements for compliance demonstration with particulate emission limit.

<sup>(3)</sup>Particulate emission limit based on all material received and shipped number by trucks, 0.18 miles of unpaved portion of haul roads and 75 percent dust control for suppressant application. PM emission limit established to reduce potential emissions from PLCP, LLLP and establish truck haul road best management practices (BMP). See Operational Limits and Monitoring Requirements for compliance demonstration with particulate emission limit.

# **Operational Limits 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 surface silt loading (sL) present on the paved road surfaces at PLCP, LLLP shall not exceed 1.0 grams per square meter.
- B. All haul roads shall be either paved or dust suppressant shall be applied to the portion of the haul roads that remains unpaved. Current unpaved haul road segments are located at ethanol load out and DDGS handling areas. If PLCP, LLLP paves the remaining un-paved haul road segments then dust suppressant no longer needs to be applied to these haul roads segments.
- C. Cleaning of the paved haul road segments shall be conducted at a minimum of once per week, weather permitting. All sweeping must be completed using an enclosed sweeper

type. If sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than  $35^0 \text{ F} (1.7^0 \text{ C})$  or conditions due to weather could create hazardous driving conditions, then the sweeping shall be postponed and accomplished as soon after the scheduled date as the conditions preventing the sweeping have abated.

- D. The owner or operator shall apply dust suppressants at the rate and frequency required by the manufacturer's specifications to achieve a minimum of 75% fugitive dust control. Dust suppressants shall be applied at minimum of once per month. If the selected dust suppressant cannot be applied because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35.0 F (1.70 C) or conditions due to weather, in combination with the application of the dust suppressant, could create hazardous driving conditions, then the dust suppressant application shall be postponed and applied as soon after the scheduled application date as the conditions preventing the application have been abated.
- E. Paved road sweeping and unpaved road dust suppressant application need not occur when a rain gauge located at the site indicates that at least 0.2 inches of precipitation (water equivalent) has occurred within the preceding 24-hour time period. However, paved road sweeping and unpaved road dust suppressant application shall resume within 24-hours after the precipitation event has ended.
- F. PLCP, LLLP shall post 10 mph speed limit signs on all roads traveled by delivery and shipping trucks.
- G. Any spills that occur on roadways traveled by delivery and shipping trucks shall be cleaned as soon as practicable

# **Recordkeeping Requirements**

- A. The owner or operator shall keep records related to paved haul road sweeping that include the date and the location of haul roads swept. In addition, owner or operator shall document all deviations from scheduled paved haul road sweeping (include date, scheduled location of sweeping, reasons for not sweeping).
- B. The owner or operator shall keep records of dust suppressant application that includes the date, location of suppressant application, and amount). In addition, owner or operator shall document all deviations from scheduled dust suppressant application that includes the date, scheduled location of suppressant application, reasons for not applying suppressant). The owner or operator shall also keep a copy of the manufacturer's specifications for achieving 75% dust suppression available for inspection.
- C. Performance testing on paved haul road surface silt loading (sL) shall be completed on a quarterly basis (4 times per year). For each performance test, silt loading sampling shall be conducted for at least 3 different paved haul road locations. The three sampled locations shall then be averaged to determine the silt loading average results. Silt load testing shall be conducted prior to paved road sweeping for that week.

Authority for Requirement: DNR Construction Permit 06-A-832-S2

# **Monitoring Requirements**

| The owner/operator of this equipment shal | l comply with the mo | onitoring requirements listed |
|---|----------------------|-------------------------------|
| below.                                    |                      |                               |

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

# **Emission Point ID Number: FS004 Cooling Towers, 4 Cells**

#### Associated Equipment

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment | Raw<br>Material | Rated<br>Capacity       | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|----------------------|-----------------|-------------------------|-------------------------------|
| FS004             | FS004            | Cooling Towers, 4 Cells      | None                 | Water           | 9,000<br>gallons/minute | 06-A-829-S2                   |

# Applicable Requirements

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

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

| Emission<br>Point | Particulate<br>Matter                          | Authority for Requirement       |
|-------------------|--|---------------------------------|
| FS004             | 2.40 tons/year <sup>(1)</sup> ;<br>0.1 gr/dscf | 06-A-829-S2, 567 IAC 23.3(2)"a" |

<sup>(1)</sup>PM and PM<sub>10</sub> are assumed to be equivalent. The limit is based on drift loss and total dissolved solids (TDS) limit of 2,400 part per million by weight (2,400 mg/L).

Pollutant: Volatile Organic Compounds (VOCs) Emission Limit(s): 0.32 tons/yr<sup>(1)</sup> Authority for Requirement: DNR Construction Permit 06-A-829-S2

# **Operational Limits 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 2,400 parts per million by weight (2,400 mg/L) for any single sampling event.
- B. PLCP, LLLP is limited to the application of 1,560 gallons of biocide to the cooling water associated with Cooling Tower (FS004) per rolling 12-month period.
- C. VOC content of biocide applied to cooling water associated with Cooling Tower (FS004) shall not exceed 5.0 percent by weight.
- D. The biocide applied to cooling water used in Cooling Tower (FS004) shall contain no HAP.
- E. Maintain Cooling Tower (FS004) according to manufacturer specifications and maintenance schedule.

# **Recordkeeping Requirements**

| Pollutant  | Methodology  | Frequency           |
|------------|--------------|---------------------|
| PM (State) | TDS Sampling | Initial and Monthly |
| VOC        | Mass Balance | Rolling 12-month    |

# **Compliance Demonstration(s) and Performance Testing**

- A. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration in the cooling water at least once for each calendar month Cooling Tower (FS004) is in operation.
- B. Record on a monthly basis in gallons, the amount of biocide applied to cooling water associated with Cooling Tower (FS004). Calculate and record rolling 12-month totals.
- C. Maintain record of the VOC content of biocide applied to cooling water associated with Cooling Tower (FS004) as percent by weight.
- D. Retain onsite Material Safety Data Sheets (MSDS) for all biocides applied in Cooling Tower (FS004). MSDS shall contain VOC and HAP information.
- E. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Cooling Tower (FS004).

Authority for Requirement: DNR Construction Permit 06-A-829-S2

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust<br>Flow Rate<br>(scfm)   | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style       | Authority for<br>Requirement |
|-------------------|---|-------------------------------|----------------------------------|--------------------------------|--------------------------|------------------------------|
| FS004             | 34 per Cell                               | 96 diameter<br>per Cell       | 636,000<br>(159,000 per<br>cell) | Ambient                        | Vertical<br>Unobstructed | 06-A-829-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.

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

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

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

#### DNR Emission Emission Emission Unit Construction Control Raw Rated Point Description Equipment Material Capacity Permit Unit FS004 Cooling Tower #2, 3 CEFS004(E-G); 22.000 FS004 Water 16-A-484 (E-G) (E-G) Cells Mist Eliminator gallons/minute

#### Associated Equipment

# Applicable Requirements

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

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

| Emission<br>Point | Opacity            | PM-2.5     | PM-10      | Particulate<br>Matter      | Authority for Requirement                           |
|-------------------|--------------------|------------|------------|----------------------------|---|
| FS004<br>(E-G)    | 40% <sup>(1)</sup> | 1.35 lb/hr | 1.35 lb/hr | 1.35 lb/hr,<br>0.1 gr/dscf | 16-A-484, 567 IAC 23.3(2)"a", 567<br>IAC 23.3(2)"d" |

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

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

applied to Cooling Tower #2 [FS004(E-G)] cooling water, as percent by weight.

- G. The owner or operator shall not apply HAP containing biocide to cooling water associated with Cooling Tower #2 [FS004(E-G)].
- H. The owner or operator shall maintain a record of the HAP content in the biocide that is applied to Cooling Tower #2 [FS004(E-G)] cooling water, as percent by weight.
- I. The owner or operator shall maintain Cooling Tower #2 [FS004(E-G)] according to manufacturer specifications and maintenance schedule.
- J. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower #2 [FS004(E-G)].

# **Recordkeeping Requirements**

# **Compliance Demonstration(s) and Performance Testing**

| Pollutant          | Methodology    | Frequency              |
|--------------------|----------------|------------------------|
| TDS <sup>(1)</sup> | Water Sampling | Monthly <sup>(2)</sup> |

 $^{(1)}$ TDS = Total Dissolved Solids.

<sup>(2)</sup>Water sampling should be completed at least once for each calendar month the cooling tower is operational.

Authority for Requirement: DNR Construction Permit 16-A-484

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

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

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

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

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

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

| Emission<br>Point        | Emission<br>Unit | Emission Unit<br>Description               | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|--------------------------|------------------|--|-------------------------------------|-----------------|-------------------|-------------------------------|
| FS005<br>(plant<br>wide) | FS005            | Fugitive Emissions from<br>Equipment leaks | Leak Detection and<br>Repair (LDAR) | NA              | NA                | 06-A-831-S1                   |

Associated Equipment

# **Operational Limits 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. The owner and operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 60.489.

# **Recordkeeping Requirements**

# **Compliance Demonstration(s) and Performance Testing**

| Pollutant                | Methodology                      | Frequency   |
|--------------------------|----------------------------------|---|
| VOC                      | See Monitoring below and NSPS VV | Monthly & as specified in NSPS VV<br>Leak Detection Program. Frequency<br>varies with component type (weekly,<br>monthly, etc.) |
| Single HAP,<br>Total HAP | See Monitoring below and NSPS VV | Monthly & as specified in NSPS VV<br>Leak Detection Program. Frequency<br>varies with component type (weekly,<br>monthly, etc.) |

- A. Calculate and record the VOC and HAP emissions in Tons based on the documented component count. Update annualized VOC and HAP emission calculations as the component count varies. Emission factors shall be based on EPA document 453/R-95-017 entitled Protocol for Equipment Leak Emission Estimates.
- B. The owner and operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 60.489.

Authority for Requirement: DNR Construction Permit 06-A-831-S2

# **NSPS Requirements**

| EU ID | Subpart | Title   | State Reference<br>(567 IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|------------------------------|-------------------------------|
|       | А       | General Provisions  | 23.1(2)                      | §60.1 – §60.19                |
| FS005 | VV      | Standards of Performance for Equipment Leaks<br>of VOC in the Synthetic Organic Chemicals<br>Manufacturing Industry | 23.1(2)                      | §60.480 – §60.489             |

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

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

# Emission Point ID Number: FS007 Fugitive Emissions from DDGS Storage Building #2

# Associated Equipment

Associated Emission Unit ID Numbers: FS007 Emissions Control Equipment ID Number: None Emissions Control Equipment Description: NA Continuous Emissions Monitors ID Numbers: None

Emission Unit vented through this Emission Point: FS007 Emission Unit Description: Fugitive emissions from DDGS Storage Building #2 Raw Material/Fuel: Dried Distillers Grains 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: 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 22.108(3)               |            |

# **Emission Point ID Number: TK001 200 Proof Tank**

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------------|-----------------|-------------------|-------------------------------|
| TK001             | TK001            | 200 Proof Tank               | CE TK001; Internal<br>Floating Roof | Ethanol         | 77,000 gallons    | 03-A-629-S5                   |

Associated Equipment

# **Operational Limits 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 fixed roof in combination with the internal floating roof shall meet the requirements specified in 40 CFR §60.112b(a)(1).
- B. The owner or operator shall maintain and submit all applicable reports and recordkeeping requirements specified in 40 CFR §60.115b(a).
- C. As specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies of all records required by §60.11b(b) for the life of the source.
- D. As specified in 40 CFR §60.116b(b), the owner or operator shall keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.
- E. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.

Authority for Requirement: DNR Construction Permit 03-A-629-S5

| EU ID | Subpart | Title   | Туре   | State<br>Reference (567<br>IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|--|---------------------------------|-------------------------------|
|       | А       | General Provisions  | NA   | 23.1(2)                         | §60.1 – §60.19                |
| TK001 | Kb      | Standards of Performance for<br>Volatile Organic Liquid Storage<br>Vessels (Including Petroleum<br>Liquid Storage Vessels) for Which<br>Construction, Reconstruction, or<br>Modification Commenced After<br>July 23, 1984 | Storage vessel with<br>a capacity greater<br>than or equal to<br>151 m <sup>3</sup> storing a<br>liquid with a<br>maximum true<br>vapor pressure<br>greater than or<br>equal to 3.5<br>kilopascals (kPa) | 23.1(2)"ddd"                    | §60.110b –<br>§60.117b        |

# NSPS Requirements

# **Emission Point Characteristics**

| Emission<br>Point | Stack<br>Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust Flow<br>Rate (scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|--|-------------------------------|-----------------------------|--------------------------------|--------------------|------------------------------|
| TK001             | 25   | 8                             | Working/Breathing losses    | Ambient                        | Downward           | 03-A-629-S5                  |

These emission points shall conform to the specifications listed below.

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

# **Monitoring Requirements**

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

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

# **Emission Point ID Number: TK002 Denaturant Storage Tank**

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------------|-----------------|-------------------|-------------------------------|
| TK002             | TK002            | Denaturant Storage Tank      | CE TK002; Internal<br>Floating Roof | Denaturant      | 32,000 gallons    | 03-A-630-S4                   |

Associated Equipment

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

# **Recordkeeping Requirements**

- A. Record and report as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.
- B. 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.
- C. 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.
- D. 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.
- E. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 03-A-630-S4

# **NSPS Requirements**

| EU ID | Subpart | Title   | Туре   | State<br>Reference (567<br>IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|--|---------------------------------|-------------------------------|
|       | A       | General Provisions  | NA   | 23.1(2)                         | §60.1 – §60.19                |
| TK002 | Kb      | Standards of Performance for<br>Volatile Organic Liquid Storage<br>Vessels (Including Petroleum<br>Liquid Storage Vessels) for Which<br>Construction, Reconstruction, or<br>Modification Commenced After<br>July 23, 1984 | Storage vessel with<br>a capacity greater<br>than or equal to<br>151 m <sup>3</sup> storing a<br>liquid with a<br>maximum true<br>vapor pressure<br>greater than or<br>equal to 3.5<br>kilopascals (kPa) | 23.1(2)"ddd"                    | §60.110b –<br>§60.117b        |

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack<br>Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust Flow<br>Rate (scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|--|-------------------------------|-----------------------------|--------------------------------|--------------------|------------------------------|
| TK002             | 15   | 8 diameter                    | Working/Breathing losses    | Ambient                        | Downward           | 03-A-630-S4                  |

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# **Emission Point ID Number: TK003 200 Proof Ethanol Storage Tank**

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity  | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------------|-----------------|--------------------|-------------------------------|
| ТК003             | TK003            | 200 Proof Tank               | CE TK003; Internal<br>Floating Roof | Ethanol         | 540,000<br>gallons | 03-A-631-S4                   |

Associated Equipment

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

# **Recordkeeping Requirements**

- A. Record and report as specified in 40 CFR Part 60 §60.115b(a) Reporting and recordkeeping requirements.
- B. 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.
- C. 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.
- D. 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.
- E. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 03-A-631-S4

# **NSPS Requirements**

| EU ID | Subpart | Title   | Туре   | State<br>Reference (567<br>IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|--|---------------------------------|-------------------------------|
|       | А       | General Provisions  | NA   | 23.1(2)                         | §60.1 – §60.19                |
| TK003 | Kb      | Standards of Performance for<br>Volatile Organic Liquid Storage<br>Vessels (Including Petroleum<br>Liquid Storage Vessels) for Which<br>Construction, Reconstruction, or<br>Modification Commenced After<br>July 23, 1984 | Storage vessel with<br>a capacity greater<br>than or equal to<br>151 m <sup>3</sup> storing a<br>liquid with a<br>maximum true<br>vapor pressure<br>greater than or<br>equal to 3.5<br>kilopascals (kPa) | 23.1(2)"ddd"                    | §60.110b –<br>§60.117b        |

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack<br>Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust Flow<br>Rate (scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|--|-------------------------------|-----------------------------|--------------------------------|--------------------|------------------------------|
| TK003             | 37   | 8 diameter                    | Working/Breathing losses    | Ambient                        | Downward           | 03-A-631-S4                  |

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# **Emission Point ID Number: TK004 Undenatured Storage Tank**

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------------|-----------------|-------------------|-------------------------------|
| TK004             | TK004            | Undenatured Storage<br>Tank  | CE TK004; Internal<br>Floating Roof | Ethanol         | 77,000 gallons    | 03-A-632-S4                   |

Associated Equipment

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

# **Recordkeeping Requirements**

- A. Record and report as specified in 40 CFR Part 60 §60.115b(a) Reporting and recordkeeping requirements.
- B. 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.
- C. 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.
- D. 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.
- E. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 03-A-632-S4

# **NSPS Requirements**

| EU ID | Subpart | Title   | Туре   | State<br>Reference (567<br>IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|--|---------------------------------|-------------------------------|
|       | A       | General Provisions  | NA   | 23.1(2)                         | §60.1 – §60.19                |
| TK004 | Kb      | Standards of Performance for<br>Volatile Organic Liquid Storage<br>Vessels (Including Petroleum<br>Liquid Storage Vessels) for Which<br>Construction, Reconstruction, or<br>Modification Commenced After<br>July 23, 1984 | Storage vessel with<br>a capacity greater<br>than or equal to<br>151 m <sup>3</sup> storing a<br>liquid with a<br>maximum true<br>vapor pressure<br>greater than or<br>equal to 3.5<br>kilopascals (kPa) | 23.1(2)"ddd"                    | §60.110b –<br>§60.117b        |

# **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack<br>Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust Flow<br>Rate (scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|--|-------------------------------|-----------------------------|--------------------------------|--------------------|------------------------------|
| TK004             | 25   | 8 diameter                    | Working/Breathing<br>losses | Ambient                        | Downward           | 03-A-632-S4                  |

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

# **Monitoring Requirements**

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

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

Authority for Requirement: 567 IAC 22.108(3)

# Emission Point ID Number: TK005 200 Proof Storage Tank

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity  | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------------|-----------------|--------------------|-------------------------------|
| TK005             | TK005            | 200 Proof Tank               | CE TK005; Internal<br>Floating Roof | Ethanol         | 540,000<br>gallons | 16-A-485                      |

Associated Equipment

# **Operational Limits 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 the fixed roof in combination with an internal roof to meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).
- B. The owner or operator shall, as specified in 40 CFR Part 60 §60.116b(a), keep copies of all records required by §60.11b(b) for the life of the source.
- C. The owner or operator shall, as specified in 40 CFR Part 60 §60.116b(b), keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.
- D. The owner or operator shall record and report as specified in 40 CFR Part 60 §60.115b(a).
- E. The owner or operator shall, as specified in 40 CFR Part 60 §60.116b(c), maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.
- F. The owner or operator shall record annually, the net material throughput in gallons.
- G. The owner or operator shall operate and maintain the control equipment (CE TK005) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year.
- H. The owner or operator shall maintain a log of all inspection and maintenance activities performed on the control equipment (CE TK005) associated with these emission points.

Authority for Requirement: DNR Construction 16-A-485

#### **NSPS Requirements**

| EU ID | Subpart | Title   | State Reference<br>(567 IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|------------------------------|-------------------------------|
|       | А       | General Provisions  | 23.1(2)                      | §60.1 – §60.19                |
| TK005 | Kb      | Standards of Performance for Volatile Organic<br>Liquid Storage Vessels (Including Petroleum<br>Liquid Storage Vessels) for Which Construction,<br>Reconstruction, or Modification Commenced<br>After July 23, 1984 | 23.1(2)"ddd"                 | §60.110b –<br>§60.117b        |

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack<br>Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust Flow<br>Rate (scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|--|-------------------------------|-----------------------------|--------------------------------|--------------------|------------------------------|
| TK005             | 37   | 8 diameter                    | Working/Breathing losses    | Ambient                        | Downward           | 16-A-485                     |

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

#### **Monitoring Requirements**

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

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

# Emission Point ID Number: TK006 200 Proof Storage Tank

| Emission<br>Point | Emission<br>Unit | Emission Unit<br>Description | Control<br>Equipment                | Raw<br>Material | Rated<br>Capacity | DNR<br>Construction<br>Permit |
|-------------------|------------------|------------------------------|-------------------------------------|-----------------|-------------------|-------------------------------|
| TK006             | TK006            | 200 Proof Tank               | CE TK006; Internal<br>Floating Roof | Ethanol         | 77,000 gallons    | 16-A-492                      |

Associated Equipment

#### **Operational Limits 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 the fixed roof in combination with an internal roof to meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).
- B. The owner or operator shall, as specified in 40 CFR Part 60 §60.116b(a), keep copies of all records required by §60.11b(b) for the life of the source.
- C. The owner or operator shall, as specified in 40 CFR Part 60 §60.116b(b), keep readily accessible records showing the dimension of the storage vessel and analysis showing the capacity of the vessel.
- D. The owner or operator shall record and report as specified in 40 CFR Part 60 §60.115b(a).
- E. The owner or operator shall, as specified in 40 CFR Part 60 §60.116b(c), maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.
- F. The owner or operator shall record annually, the net material throughput in gallons.
- G. The owner or operator shall be operate and maintain the control equipment (CE TK006) according to the manufacturer's specification with inspections occurring at a minimum of once per calendar year.
- H. The owner or operator shall maintain a log of all inspection and maintenance activities performed on the control equipment (CE TK006) associated with these emission points.

Authority for Requirement: DNR Construction 16-A-492

#### **NSPS Requirements**

| EU ID | Subpart | Title   | State Reference<br>(567 IAC) | Federal Reference<br>(40 CFR) |
|-------|---------|---|------------------------------|-------------------------------|
|       | А       | General Provisions  | 23.1(2)                      | §60.1 – §60.19                |
| TK006 | Kb      | Standards of Performance for Volatile Organic<br>Liquid Storage Vessels (Including Petroleum<br>Liquid Storage Vessels) for Which Construction,<br>Reconstruction, or Modification Commenced<br>After July 23, 1984 | 23.1(2)"ddd"                 | §60.110b –<br>§60.117b        |

#### **Emission Point Characteristics**

These emission points shall conform to the specifications listed below.

| Emission<br>Point | Stack<br>Height,<br>(ft, from<br>the ground) | Stack<br>Opening,<br>(inches) | Exhaust Flow<br>Rate (scfm) | Exhaust<br>Temperature<br>(°F) | Discharge<br>Style | Authority for<br>Requirement |
|-------------------|--|-------------------------------|-----------------------------|--------------------------------|--------------------|------------------------------|
| TK006             | 25   | 8 diameter                    | Working/Breathing losses    | Ambient                        | Downward           | 16-A-492                     |

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

#### **Monitoring Requirements**

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

| Agency Approved Operation & Maintenance Plan Required?     | Yes 🗌 No 🖂 |
|--|------------|
| Facility Maintained Operation & Maintenance Plan Required? | Yes 🗌 No 🖂 |
| Compliance Assurance Monitoring (CAM) Plan Required?       | Yes 🗌 No 🖂 |
| Authority for Requirement: 567 IAC 22 108(3)               |            |

Authority for Requirement: 567 IAC 22.108(3)

#### **IV. General Conditions**

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

#### **G1.** Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"* 

2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. 567 IAC 22.105 (2)"h''(3)

3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. 567 IAC 22.108 (1)"b"

4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)* 

5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. 567 IAC 22.108 (9)"b"

6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"* 

#### **G2.** Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)* 

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

# G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. 567 *IAC 22.107 (4)* 

#### **G4. Annual Compliance Certification**

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

# G5. Semi-Annual Monitoring Report

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

#### **G6.** Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.

2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.

3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.

4. The fee shall be submitted annually by July 1 with forms specified by the department.

5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.

6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.

7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.

8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

#### G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

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;
 Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring

compliance with the permit or other applicable requirements. 567 IAC 22.108 (15)"b"

#### **G8.** Duty to Provide Information

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

#### **G9.** General Maintenance and Repair Duties

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

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.

2. Remedy any cause of excess emissions in an expeditious manner.

3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.

4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. 567 IAC 24.2(1)

#### G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:

- a. The date, place and time of sampling or measurements
- b. The date the analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.

e. The results of such analyses; and

f. The operating conditions as existing at the time of sampling or measurement.

g. The records of quality assurance for continuous compliance monitoring systems

(including but not limited to quality control activities, audits and calibration drifts.) 2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit. 3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and

conditions under each operating scenario. 567 IAC 22.108(4), 567 IAC 22.108(12) G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein. 1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

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

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

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

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

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

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

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

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

# G13. Hazardous Release

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

# G14. Excess Emissions and Excess Emissions Reporting Requirements

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

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

2. Excess Emissions Reporting

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

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

ii. The estimated quantity of the excess emission.

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

iv. The cause of the excess emission.

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

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

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

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

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

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

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

vii. If the owner claims that the excess emission was due to malfunction,

documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4) 3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

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

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

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

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

In any enforcement proceeding, the permittee seeking to establish the occurrence of an

1. emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *567 IAC 22.108(16)* 

#### G15. Permit Deviation Reporting Requirements

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

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

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

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

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

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

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

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

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

e. The changes comply with all applicable requirements.

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

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

ii. The date on which the change will occur,

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

iv. The pollutants emitted subject to the emissions trade

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

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

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

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

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

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

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

#### G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

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

i. Correct typographical errors

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

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

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

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

2. Minor Title V Permit Modification.

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

i. Do not violate any applicable requirement;

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

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

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

v. Are not modifications under any provision of Title I of the Act; and vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).

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

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

ii. The permittee's suggested draft permit;

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

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

3. Significant Title V Permit Modification.

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

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

#### G19. Duty to Obtain Construction Permits

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

# G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (567 IAC

23.1(3)"a"); training fires and controlled burning of a demolished building (567 IAC 23.2).

# G21. Open Burning

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

#### G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)* 

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozonedepleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

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

#### **G24.** Permit Reopenings

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

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

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

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

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

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

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement. d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or

revoked to ensure compliance by the source with the applicable requirements. 567 IAC 22.114(1)

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

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

# G25. Permit Shield

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

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

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

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

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

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

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

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

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

# G26. Severability

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

# G27. Property Rights

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

# G28. Transferability

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

# G29. Disclaimer

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

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

Stack Test Review Coordinator Iowa DNR, Air Quality Bureau Wallace State Office Building 502 E 9<sup>th</sup> St. Des Moines, IA 50319-0034 (515) 725-9526

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

#### G31. Prevention of Air Pollution Emergency Episodes

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

#### G32. Contacts List

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

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 502 E. 9<sup>th</sup> St. Des Moines, IA 50319 (515) 725-8200

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

#### Field Office 1

909 West Main – Suite 4 Manchester, IA 52057 (563) 927-2640

#### Field Office 3

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

#### Field Office 5

Wallace State Office Building 502 E 9<sup>th</sup> St. Des Moines, IA 50319-0034 (515) 725-0268

#### Polk County Public Works Dept.

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

# Field Office 2

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

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

#### **Field Office 6**

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

#### **Linn County Public Health**

Air Quality Branch 501 13th St., NW Cedar Rapids, IA 52405 (319) 892-6000

# V. Appendix A

40 CFR 60 Subpart A – General Provisions https://www.law.cornell.edu/cfr/text/40/part-60/subpart-A

40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels <u>https://www.law.cornell.edu/cfr/text/40/part-60/subpart-Kb</u>

40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units https://www.law.cornell.edu/cfr/text/40/part-60/subpart-Dc

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines https://www.law.cornell.edu/cfr/text/40/part-60/subpart-IIII

40 CFR 60 Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry https://www.law.cornell.edu/cfr/text/40/part-60/subpart-VV

40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines https://www.law.cornell.edu/cfr/text/40/part-63/subpart-ZZZZ

# VI. Appendix B

| Control<br>Equipment | Control Equipment             | Pressure<br>Drop Range<br>(In. W.C.) |
|----------------------|-------------------------------|--------------------------------------|
| CE03                 | Bin Vent Filter               | NA                                   |
| CE04                 | Bin Vent Filter               | NA                                   |
| CE05                 | <b>Dust Collection Filter</b> | 0.1 - 6.0                            |
| CE61                 | <b>Dust Collection Filter</b> | 0.1 - 6.0                            |
| CE62                 | <b>Dust Collection Filter</b> | 0.1 - 6.0                            |
| CE10                 | Pulse Jet Baghouse            | 0.1 - 6.0                            |
| CE11                 | Pulse Jet Baghouse            | 0.1 - 6.0                            |
| CE41                 | Pulse Jet Baghouse            | 0.1 - 6.0                            |
| CE42-2               | Pulse Jet Baghouse            | 0.1 - 6.0                            |

#### **Agency Operations and Maintenance Plan**

# O & M Plan for Filters CE03, CE04

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

# O & M Plan for Filters CE05, CE61, CE62

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

## O & M Plan for Baghouses CE10, CE11, CE41, CE42-2

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