ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
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217/785-1705

CONSTRUCTION PERMIT
NSPS SOURCE

PERMITTEE

Crysalis Biosciences
Attn: Keith Zarczynski
231 Monsanto Avenue
Sauget, Illinois 62201

Application No.: 23090009
Applicant's Designation:
Subject: Ethanol Plant
Date Issued: April 19, 2024
Location: 231 Monsanto Avenue, Sauget, St. Clair County

I.D. No.: 163121ABE
Date Received: September 12, 2023

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a fuel ethanol plant with a nominal design capacity of 57 million gallons/year denatured ethanol, including the units listed in Attachment A and other ancillary operations, as described in the above-referenced application. This Permit is subject to the following conditions and the standard conditions attached hereto.

## Section 1: Plant-Wide Conditions

### 1.0 Introduction

a. This permit authorizes changes to an existing ethanol plant. The ethanol plant would produce ethanol by fermentation of corn at the plant. After addition of a denaturant, the ethanol would be loaded out from the plant for use as fuel for motor vehicles.

### 1.1 Plant-Wide Operating Limitations

a. The amount of grain processed at this plant shall not exceed 59,300 tons/month and 593,000 tons/year.

b. Ethanol production from the plant, determined as denatured ethanol shipped from the loading rack, shall not exceed 5.7 million gallons/month and 57 million gallons/year.

c. Undenatured ethanol production of the plant shall not exceed 5.5 million gallons/month and 55 million gallons/year.

d. Annual natural gas usage by the plant shall not exceed 2,042 million cubic feet.

e. The total feed production of the plant, expressed in terms of distiller's dried grains with solubles (DDGS) or DDGS equivalent, shall not exceed 17,150 tons/month and 171,500 tons/year.

f. Grain and DDGS shall not be stored in open storage piles.

g. Compliance with these annual limitations and other annual limitations of this permit shall be determined from a running total of 12 months of data, unless otherwise specified in the particular condition.

1.2 Plant-wide Emission Limitations

a. Emissions from the plant shall not exceed the limitations in Table I. For purposes of determining compliance with these limitations, the procedures in the unit-specific conditions of this permit shall be followed unless other credible evidence provides a more accurate estimate of emissions.

b. i. This permit is issued based on the source not being a major source for Hazardous Air Pollutants (HAP), so that this source is not subject to the requirements of Section 112(g) of the Clean Air Act.

ii. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the plant shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition and other conditions of this permit, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(g) of the Clean Air Act.

1.3 Regulations of General Applicability

Emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source unless the wind speed is greater than 25 miles per hour, pursuant to 35 IAC 212.301 and 212.314.

b. No person shall cause or allow the emission of smoke or other particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) or 212.124.

1.4 Good Air Pollution Control Practice

The Permittee shall operate and maintain the emission units at this plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice to minimize emissions including periods of startup, shutdown, malfunction or breakdown, as follows:

a. Unless otherwise specified, the Permittee shall conduct monthly inspections and perform appropriate maintenance and repairs to facilitate proper functioning of equipment and minimize or prevent malfunctions and breakdowns. The Permittee shall maintain logs for these inspections in accordance with Condition 3.3.

c. Install, calibrate and maintain required instrumentation in accordance with good monitoring practices, following manufacturer's recommended operating and maintenance procedures or such other procedures as otherwise necessary to assure reliable operation of such devices.

d. Unless otherwise specified, install stacks for the principal emission units designed with a height and exhaust velocity that satisfies good engineering practices.

1.5 Plantwide Recordkeeping

The Permittee shall maintain records of the following operational information for the plant, with data recorded for each individual calendar month and for each period of consecutive calendar 12 months.

a. The amount of grain processed at this plant, in tons.

b. i. The ethanol production from the plant, determined as denatured ethanol shipped from the loading rack, in million gallons.

ii. Undenatured ethanol production of the plant, in million gallons.

c. The amount of denaturant used at the plant for denaturing ethanol, in gallons.

d. The total feed production of the plant, expressed on a distiller's dried grains with solubles (DDGS) or DDGS equivalent, in tons.

e. The total natural gas usage by the plant, in standard cubic feet.

f. All records, including logs and procedures, required by this permit shall be retained by the Permittee at a readily accessible location at the source for at least three years from the date of entry and shall be available for inspection by the Illinois EPA

upon request. Any records retained in electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection. The Permittee shall provide copies of any required records requested by the Illinois EPA as soon as is practicable, considering the nature and extent of the requested records.

1.6 Plant-Wide Reporting

a. The Permittee shall submit Quarterly Compliance Reports as specified in the unit specific conditions of this permit and Condition 3.4(b).

b. i. The Permittee shall submit an Annual Emission Report in accordance with 35 IAC Part 254.

ii. With its Annual Emission Report the Permittee shall report:

A. The annual operating hours of the distillation process, fermentation process and the feed drying system, and the percentage of these operating hours, if any, that these units operated out of compliance.

B. Significant deficiencies in the condition of emission units and control systems as related to emissions identified during the detailed annual inspection of equipment.

c. i. The Permittee shall notify the Illinois EPA within 30 days of any deviation from the operating limitations in Condition 1.1 or the annual emission limitations set for the plant. Any such notification shall include the information specified in Condition 3.4.

ii. Notwithstanding the above or provisions in the Unit Specific Conditions of this permit for reporting deviations, if deviation will occur from required maintenance, repair or other activity that can be scheduled in advance, the Permittee shall also notify the Illinois EPA prior to undertaking such activity, if it is feasible to do so. Such notification shall be submitted at least 5 days in advance unless the activity is scheduled less than 5 days in advance. Such notification shall be followed by such other notification or reporting as required for the deviations.

1.7 Submission of Reports

a. One (1) copy of required reports and notifications shall be sent:

i. Via mail or overnight delivery:

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. In addition to the paper copy of the test notifications, written test plan and final test report, an electronic copy of the test notifications, written test plan and final test report shall be sent to:

epa.boa.smu@illinois.gov

For large files, the Permittee may request to use the Illinois EPA OneDrive Request File or another approved method. The Permittee shall include the facility's ID Number on all correspondence.

b. When this permit requires immediate notification, such notification shall be provided by telephone and followed by facsimile or e-mail transmittal of a narrative report.

1.8 Authorization to Operate

a. The plant may be operated pursuant to this construction permit for a period of 180 days from the initial startup of the feed dryer provided the Permittee completes the required emission testing in accordance with Condition 3.1.

b. Following successful completion of testing in accordance with Condition 3.1, the Permittee may continue to operate the plant under this construction permit until the Illinois EPA takes final action on the Permittee's request for an operating permit, provided that the Permittee submits a complete permit application on a timely basis as required by the Environmental Protection Act.

1.9 Other Requirements

a. This permit does not relieve the Permittee of the responsibility to comply with all Local, State and Federal Regulations which are part of the applicable Illinois State Implementation Plan, as well as all other applicable Federal, State and Local requirements.

b. In particular, this permit does not excuse the Permittee from the obligation to undertake further actions at the source beyond those specified in the application as may be needed to eliminate air pollution, including nuisance due to odors, such as raising the height of stacks, using alternative scrubbant materials, installing back-up control systems, and altering process conditions in emission units.

## Section 2: Unit Specific Conditions

### 2.1 Package Boiler

#### 2.1.1 Description

Two natural gas fired boilers are used to generate the steam to supply the heat for the ethanol production process.

#### 2.1.2 List of Emission Units and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Boilers | Natural Gas Fired Boiler (92.4 Million Btu/Hour, Each) | Ultra Low-$NO_x$ burners |

#### 2.1.3 Applicability Provisions and Applicable Regulations

a. An "affected boiler" for the purpose of these unit-specific conditions, is each boiler described in Conditions 2.1.1 and 2.1.2.

b. Each affected boiler is subject to the federal Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc and related provisions in Subpart A. The Illinois EPA is administering NSPS in Illinois on behalf of the USEPA under a delegation agreement.

c. The emission of carbon monoxide (CO) from each affected boiler shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

d. The emission of smoke or other particulate matter from each affected boiler shall not have an opacity greater than 30 percent, except as allowed by 35 IAC 212.123(b) and 212.124. Compliance with this limit shall be determined by 6-minute averages of opacity readings in accordance with USEPA Reference Method 9 [35 IAC 212.109 and 212.123(a)].

#### 2.1.4 Non-Applicability of Regulations of Concern

For the affected boilers, there are no applicable standards for emissions of sulfur dioxide, particulate matter, and opacity pursuant to 40 CFR 60 Subpart Dc, as the affected boilers fire natural gas.

#### 2.1.5 Operational and Production Limits and Work Practices

a. Natural gas shall be the only fuel fired in the affected boilers.

b. The rated firing rate of each affected boiler shall not exceed 92.4 million Btu/hour.

c. Annual natural gas usage by the affected boilers shall not exceed 1,113.73 million cubic feet.

d. The exhaust flow rate from stacks 1 and 2 for the affected boiler shall be no more than 65 feet per second (ft/s) at all times while each affected boiler is in use.

e. The minimum height of stacks 1 and 2 of each affected boiler shall be at least ninety feet (90') at all times while each affected boiler is in use.

e. At all times, the Permittee shall maintain and operate each affected boiler that is subject to the NSPS, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to 40 CFR 60.11(d).

2.1.6 Emission Limitations

a. The ultra-low $NO_x$ burners for each affected boiler shall be designed and operated to emit no more than 0.03 lb $NO_x$ per million Btu heat input.

b. Emissions of the affected boilers shall not exceed the following limits. These limits are based on information in the application including the maximum firing rate (92.4 million Btu/hr each), maximum operating time (8,760 hr/yr), the emission factors based on the manufacturer's data, and continuous operation:

| | Emissions Each Boiler | | Combined Emissions |
|---|---|---|---|
| Pollutant | (Lbs/Hour) | (Tons/Year) | (Tons/Year) |
| $NO_x$ | 2.77 | 8.52 | 17.04 |
| CO | 3.42 | 10.51 | 21.02 |
| VOM | 0.74 | 2.27 | 4.54 |
| PM | 0.44 | 1.36 | 2.73 |
| $PM_{10}$ | 0.44 | 1.36 | 2.73 |
| $PM_{2.5}$ | 0.44 | 1.36 | 2.73 |
| $SO_2$ | 0.09 | 0.28 | 0.57 |

c. i. The acetaldehyde emissions of the affected boilers combined shall not exceed 0.0006 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected boilers combined shall not exceed 1.00 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the affected boilers combined shall not exceed 1.05 tons/year.

2.1.7 Testing Requirements

The Permittee shall perform emission tests as requested for affected boilers as specified in Condition 3.1.

2.1.8 Monitoring Requirements

None

2.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items:

a. i. The amount of natural gas combusted for each affected boiler during each calendar month, pursuant to 40 CFR 60.48c(g)(2).

ii. The amount of natural gas combusted for the affected boilers (combined) (mmscf/month and mmscf/year);

b. The exhaust flow rate from stacks 1 and 2 of each affected boiler (ft/s) while each affected boiler is in use;

c. The Permittee shall keep inspection, maintenance, and repair logs with date and nature of such activities for the affected boilers; and

d. Monthly and annual $NO_x$, CO, PM, $PM_{10}$, $PM_{2.5}$, $SO_2$, VOM, and HAP emissions from each affected boiler based on fuel consumption and other operating data, and appropriate emission factors and supporting calculations. These records shall be compiled on at least a quarterly basis.

2.1.10 Reporting Requirements

a. The Permittee shall fulfill all applicable notification and reporting requirements of the NSPS for each affected boiler including:

i. Written notification of commencement of construction, no later than 30 days after such date [40 CFR 60.7(a)(1)]; and

ii. Written notification of the actual date of initial startup, within 15 days after such date [40 CFR 60.7(a)(3)].

b. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for

the affected boilers as follows. These reports shall include the information specified in Condition 3.4.

i. Excess opacity that lasts more than 24 minutes (four 6-minute averaging periods) shall be immediately reported to the Illinois EPA.

ii. The deviations addressed above and all other deviations shall be reported in the quarterly compliance report.

## 2.2 Diesel Engine Generator

### 2.2.1 Description

A diesel engine generator would be used to maintain electrical power for the emergency fire pump at the plant if the plant experiences an interruption or outage in the power supply from the grid.

### 2.2.2 List of Emission Units and Pollution Control Equipment

| Process | Description |
|---|---|
| Engine | Diesel Engine Generator (1,000 kW) |

### 2.2.3 Applicability Provisions and Applicable Regulations

a. The "affected engine" for the purpose of these unit-specific conditions, is the engine generator described in Conditions 2.2.1 and 2.2.2.

b. The affected engine is subject to the requirements of 40 CFR Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and related provisions in Subpart A. The Illinois EPA is administering the NSPS in Illinois on behalf of the USEPA under a delegation agreement.

i. 40 CFR 60.4205(b), which provides that the Permittee must comply with the emission standards for new nonroad compression ignition (CI) engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI internal combustion engines (ICE). In particular, the affected engine is subject to the following emission standards:

| Pollutant | Emission Standard g/kW-hr |
|---|---|
| NOx + NMHC | 6.4 |
| CO | 3.5 |
| PM | 0.2 |

ii. 40 CFR 60.4206, which provides that the Permittee must operate and maintain the stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 40 CFR 60.4205 over the entire life of the engine.

iii. 40 CFR 60.4207(b), which provides that the Permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise

obtained) prior to October 1, 2010, may be used until depleted.

c. The affected engine is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engine, 40 CFR 63 Subpart ZZZZ.

i. Pursuant to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source must meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60 Subpart IIII, for compression ignition engine.

d. The affected engine is subject to 35 IAC 212.123(a), which provides that no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit, except as provided by 35 IAC 212.123(b) and 212.124.

e. The affected engine is subject to 35 IAC 214.301, which provides that the emission of $SO_2$ into the atmosphere from the affected engine shall not exceed 2,000 ppm.

f. The affected engine is subject to 35 IAC 214.305(a)(2), which provides that the sulfur content of all distillate fuel oil used by the affected engine must not exceed 15 ppm.

2.2.4 Non-applicability Provisions

This permit is issued based on the affected engines not being subject to 35 IAC 212.321 for emissions of particulate matter because this rule cannot be applied to engines due to the nature of engines and the definition of “process weight rate” at 35 IAC 211.5250.

2.2.5 Operational Requirements and Work Practices

a. Pursuant to 40 CFR 60.4211(a), except as provided under 40 CFR 60.4211(g), the Permittee shall operate and maintain the affected engine according to the manufacturer’s emissions related written instructions. In addition, the Permittee may only change those emission-related settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 1068, as applicable.

b. Pursuant to 40 CFR 60.4211(c), the Permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

c. Pursuant to 40 CFR 60.4211(f), for the affected engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If the Permittee does not operate the engine according to these requirements, the engine will not be considered an emergency engine under Subpart IIII and must meet all requirements for non-emergency engines.

i. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]

ii. The Permittee may operate the affected engine for any combination of the purposes specified in 40 CFR 60.4211(f)(2) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations counts as part of the 100 hours per calendar year allowed by this condition. [40 CFR 60.4211(f)(2)]

A. The affected engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Illinois EPA or USEPA for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4211(f)(2)(i)]

iii. The affected engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. [40 CFR 60.4211(f)(3)]

d. Diesel oil shall be the only fuel fired in the affected engine.

e. The affected engine shall not operate more than 100 hours per year.

f. The sulfur content of the fuel oil fired in the affected engine shall not exceed 0.0015% by weight.

g. The exhaust flow rate from the stack of the affected engine shall be no more than 7,540 cubic feet per minute (cfm) at all times while the affected engine is in use.

h. The minimum height of the engine stack shall be at least sixteen feet (16') at all times the affected engine is in use.

2.2.6 Emission Limitations

a. Emissions from the affected engine shall not exceed the following limits. These limits are based on the information provided in the permit application including the maximum capacity of the engine (1,000 kW), standard emission factors and maximum operation (100 hours per year).

| Pollutant | Emissions | |
|---|---|---|
| | (Lbs/Hour) | (Tons/Year) |
| $NO_x$ | 11.68 | 0.58 |
| CO | 1.95 | 0.10 |
| VOM | 0.21 | 0.02 |
| PM | 0.33 | 0.02 |
| $PM_{10}$ | 0.33 | 0.02 |
| $PM_{2.5}$ | 0.33 | 0.0193 |
| $SO_2$ | 0.33 | 0.02 |

b. i. The acetaldehyde emissions of the affected engine shall not exceed 0.001 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected engine shall not exceed 0.001 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the affected engine shall not exceed 0.001 tons/year.

2.2.7 Testing Requirements

Upon written request by the Illinois EPA, the Permittee shall perform emission tests as requested for the affected engine as specified in Conditions 3.1(b), (d), (e), and (f).

2.2.8 Monitoring Requirements

None

2.2.9. Recordkeeping Requirements

a. The Permittee shall comply with the applicable recordkeeping requirements of the NSPS.

b. Pursuant to 35 IAC 214.305(a)(3), the owner or operator must:

i. Maintain records demonstrating that the fuel oil used by the affected engine complies with the requirements in 35 IAC 214.305(a)(2), such as records from the fuel supplier indicating the sulfur content of the fuel oil;

ii. Retain the records for at least 5 years, and provide copies of the records to the Agency within 30 days after receipt of a request by the Agency; and

iii. Notify the Agency within 30 days after discovery of deviations from any of the requirements in 35 IAC 214.305(a). At minimum, and in addition to any permitting obligations, such notification must include a description of the deviations, a discussion of the possible cause of the deviations, any corrective actions taken, and any preventative measures taken.

c. The Permittee shall maintain records of the following items for the affected engine:

i. Fuel usage, gallons/month and gallons/year.

ii. The sulfur content of the fuel used in the affected engine (% by weight), which shall be recorded for each shipment of fuel delivered to the plant.

iii. Operating hours (hours/month and hours/year).

iv. The exhaust flow rate (cfm) from the stack of the affected engine while the affected engine is in use;

v. The manufacturer's specification for emission from the engine or applicable emission factors, with supporting documentation.

A. The Permittee shall keep the following records related to the operation and maintenance of the affected engine:

I. An operating log.

II. An inspection/maintenance log.

vi. Monthly and annual $NO_x$, CO, PM, $PM_{10}$, $PM_{2.5}$, $SO_2$, VOM, and HAP emissions, based on fuel consumption and other operating data, and appropriate $NO_x$, CO, PM, $PM_{10}$, $PM_{2.5}$, $SO_2$, VOM, and HAP emission factors from the affected engine, with supporting calculations (tons/month and tons/year)

2.2.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected engine as follows. These reports shall include the information specified in Condition 3.4.

b. For the affected engine, the Permittee shall comply with the applicable notification and reporting requirements of the NSPS, Stationary Compression Ignition Internal Combustion Engine, 40 CFR 60.4214(d).

c. The use of fuel with sulfur content in excess of 0.0015% by weight, the limit specified in Condition 2.2.5(f), with the amount and length of time this fuel was used and the additional emission of $SO_2$ that accompanied the incident.

d. Excess opacity from the affected engine that lasts more than 24 minutes (four 6-minute averaging periods) shall be immediately reported to the Illinois EPA.

e. The use of fuel with sulfur content in excess of the specified amount in this permit from the affected engine with the length of time this fuel was used and the effect on the emissions of $SO_2$.

f. The deviations addressed above and all other deviations shall be reported in the quarterly compliance report.

## 2.3 Grain Receiving, Handling, Milling, and Processing

### 2.3.1 Description

The plant includes a grain elevator at which corn is received by truck or rail car and stored in bins prior to processing. The initial processing of the corn occurs in the elevator, where the corn is screened or cleaned to remove cobs and other foreign matter. The cleaned grain is then transferred to a "day bin", ground in a hammermill and conveyed to the slurry tank for enzymatic processing.

### 2.3.2 List of Emission Units and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Grain Receiving/Handling, and Cleaning | Truck Receiving and Conveying System | Filters (baghouses) (SV001A and SV001B) |
| | Rail Receiving and Conveying system | |
| | Elevators | |
| | Storage Silos | Enclosed Building |
| | Cleaner | Filters (baghouses) (SV002A and SV002B) |
| | Grain Surge Bin | |
| | Hammermill Feed | |
| Grain Milling | Hammermills | Filters (baghouses) (SV003A and SV003B) |
| | Hammermill Discharge Conveyors | |

### 2.3.3 Applicability Provisions and Applicable Regulations

a. i. The "affected grain receiving, handling, and cleaning operation" for the purpose of these unit-specific conditions, is the grain handling operation described in Conditions 2.3.1 and 2.3.2.

ii. The "affected grain milling operation" for the purpose of these unit-specific conditions, is the grain milling operation described in Conditions 2.3.1 and 2.3.2.

b. The affected grain receiving, handling, and cleaning operations are subject to 35 IAC 212, Subpart S: Agriculture. The Permittee shall comply with all applicable requirements of Subpart S [See Conditions 2.3.5(a) and (b)].

c. Affected grain milling units are subject to 35 IAC 212.321, which provide that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit,

either alone or in combination with the emission of particulate matter from all other similar process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).

2.3.4 Non-Applicability of Regulations of Concern

a. The affected grain receiving, handling, and cleaning operations are not subject to 35 IAC 212.321, because the affected operations are subject to 35 IAC 212, Subpart S [35 IAC 212.461(a)].

b. This permit is issued based on the affected operations not being subject to 40 CFR 60, Subpart DD: Standards of Performance for Grain Elevators, because the source's total permanent grain storage capacity will not exceed the applicability threshold of the NSPS.

2.3.5 Operational Limits and Control Requirements

a. Housekeeping Practices. The Permittee shall implement and use the following housekeeping practices for affected operations.

i. Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.

ii. Grain shall only be received by the plant by means of truck traffic.

iii. Grain receiving and/or grain handling shall only occur from 7 am to 3 pm on Monday through Friday , and for no more than a total of 2,080 hours/yr. The Permittee shall only operate one grain receiving and/or grain handling process and filter(baghouse) at a time. Each grain receiving process and filter (baghouse shall operate for no more than 1,040 hrs/yr.

iv. The Permittee shall immediately close all overhead doors upon entry of any truck into the Grain Receiving building during grain receiving events to prevent fugitive emissions. The overhead doors shall be fully closed and kept fully closed during all grain receiving events. Any other doors, e.g., entry door, at the Grain Receiving building shall be designed and operated as self-closing.

v. Cleaning and Maintenance.

A. Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks

and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.

B. Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.

C. The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.

vi. Dump Pit.

A. Aspiration equipment shall be maintained and operated.

B. Dust control devices shall be maintained and operated.

vii. Property. The yard and driveway of any source shall be asphalted, and oiled or equivalently treated to control dust.

viii. Housekeeping Check List. A written Housekeeping Check List for the grain handling operation, developed and maintained by the Permittee, shall be completed by the manager of the operation on at least a monthly basis and copies maintained on the premises for inspection by the Illinois EPA.

b. Individual grain handling operations shall comply with applicable requirements of 35 IAC 212.462 (see below), if a certified investigation performed by the Illinois EPA determines that such operation is causing or tending to cause air pollution [Section 9 of the Environmental Protection Act].

i. Cleaning and Separating Operations [35 IAC 212.462(a)].

A. Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere.

B. Air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment, which has a rated, and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

ii. Dump-Pit Areas [35 IAC 212.462(b)].

A. Induced draft shall be applied to major dump pits and their associated equipment (including, but not limited to, boots, hoppers and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 feet per minute.

B. The induced draft air stream shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 90 percent by weight.

C. Means or devices (including, but not limited to, wind deflectors) shall be employed to prevent a wind velocity in excess of 50 percent of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph.

iii. Internal Transferring Area [35 IAC 212.462(c)].

A. Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere.

B. Air contaminants collected from internal transfer operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

c. The exhaust flow rate from SV003A and SV003B from the affected grain milling shall be no more than 58 feet per second (ft/s) at all times while the affected grain milling operation is in use.

d. The minimum height of the SV003A and SV003B of the affected grain milling operation shall be at least ninety feet (90') at all times while each affected grain milling operation is in use.

e. The Permittee shall operate the affected grain milling operations no more than 8,424 hr/year.

f. The Permittee shall operate the filters/baghouses of the affected grain receiving, handling, and cleaning operations and affected grain milling operations with a pressure drop that is within a range that is consistent with manufacturer's recommended levels or that during emission testing that demonstrated compliance with applicable requirements.

g. The Permittee shall operate and maintain air pollution control equipment in a manner that assures that applicable requirements are met. The actions taken by the Permittee to meet this requirement shall include at least the following:

i. Written operating procedures shall be maintained and updated describing normal process and equipment operating parameters; monitoring or instrumentation for measuring control equipment operating parameters, if any; and control equipment inspection and maintenance practices. With respect to control equipment maintenance practices, the operating procedures may incorporate the manufactures recommended operating instructions, if a copy of these instructions is attached to the procedures.

ii. Visual inspections of air pollution control equipment shall be conducted on a regular schedule. These inspections shall include a detailed inspection of the performance and condition of control equipment at least once per year.

2.3.6 Emission Limitations

a. Fabric filters (baghouses) (SV001A and SV001B) on affected units shall not exceed an emission limit of 0.0001 grain per standard cubic foot (gr/scf), fabric filters (baghouse) (SV003A) on affected units shall not exceed an emission limit of 0.001 grain per gr/scf, and fabric filters (baghouses) (SV002A, SV002B and SV003B) on affected units shall not exceed an emission limit of 0.002 gr/scf.

b. i. Particulate matter (PM) emissions from affected operations shall not exceed the following limits. These limits are based on the information provided in the application.

| Operation | PM Emissions | |
|---|---|---|
| | (Lbs/Hour) | (Tons/Year) |
| Grain Receiving and Handling | 0.03 | 0.02 |
| Grain Cleaning | 0.02 | 0.10 |
| Grain Milling | 0.15 | 0.65 |

ii. Particulate matter ($PM_{10}$) emissions from affected operations shall not exceed the following limits. These limits are based on the information provided in the application.

| Operation | $PM_{10}$ Emissions | |
|---|---|---|
| | (Lbs/Hour) | (Tons/Year) |
| Grain Receiving and Handling | 0.03 | 0.02 |
| Grain Cleaning | 0.0223 | 0.10 |
| Grain Milling | 0.1543 | 0.65 |

iii. Particulate matter ($PM_{2.5}$) emissions from affected operations shall not exceed the following limits. These limits are based on the information provided in the application.

| Operation | $PM_{2.5}$ Emissions | |
|---|---|---|
| | (Lbs/Hour) | (Tons/Year) |
| Grain Receiving and Handling | 0.03 | 0.02 |
| Grain Cleaning | 0.0038 | 0.017 |
| Grain Milling | 0.0262 | 0.115 |

iv. The above limits do not account for uncaptured PM, $PM_{10}$ and $PM_{2.5}$ emissions from the receiving and handling of grain or grain storage silos (operations performed inside enclosed building), which shall not exceed 0.12 tons/yr of PM, 0.03 tons/yr of $PM_{10}$, 0.005 tons/year $PM_{2.5}$.

2.3.7 Testing Requirements

The Permittee shall perform emission tests as requested for affected operations as specified in Condition 3.1.

2.3.8 Monitoring Requirements

The Permittee shall install, operate, and maintain instrumentation on each baghouse for the affected operations to measure pressure drop across the baghouse.

2.3.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected operations:

a. The permanent grain storage capacity of the plant, with supporting documentation, which record shall be updated if the permanent grain storage capacity of the plant changes.

b. A copy of the manufacturer’s specifications and recommended operating and maintenance procedures for each baghouse for the affected operations.

c. Records related to grain throughput, on a monthly basis:

   i. Grain received (tons/month).

   ii. Grain in storage (tons).

   iii. Grain cleaned and processed, based on amount received adjusted for change in amount stored (tons/month).

   iv. Grain processed (tons/year).

d. Records related to grain received by truck:

   i. Grain received by truck (tons/month and tons/year).

   ii. Operating hours during receipt of material by truck.

   iii. Records of time, date and duration of each grain receiving and/or grain handling event detailing the receiving system and/or grain handling system and corresponding filter/baghouse used.

   iv. Records of opening and fully closing overhead doors during receipt of grain by truck, with a description of any incident and explanation of events when the door was not fully closed during a truck receipt event and an estimate of the additional PM, $PM_{10}$ and $PM_{2.5}$ emissions that occurred, with supporting calculations and background information.

e. The differential pressure of the baghouses at least once per operating day.

f. The exhaust flow rate (ft/s) from SV003A and SV003B of the affected grain milling operations while the affected grain milling operation is in use;

g. Operating hours of the affected grain milling operation (hrs/mo and hrs/yr);

h. Logs for inspections, other equipment observations, preventative maintenance, maintenance activities other than preventative maintenance, and repair of air pollution control equipment which include: date, duration, nature, and description of observation or action.

i. i. Documentation for the PM, $PM_{10}$, and $PM_{2.5}$ emission factor(s) used by the Permittee to determine emissions of the affected operation.

   ii. All other data used or relied upon to determine the PM, $PM_{10}$, and $PM_{2.5}$ emissions of the affected operations.

iii. PM, $PM_{10}$, and $PM_{2.5}$ emissions from affected operations (tons/month and tons/year) based on appropriate emission factors and operating data, with supporting calculations.

2.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected operations as follows. These notifications shall include the information specified by Condition 3.4.

a. Excess opacity that lasts more than 24 minutes (four 6-minute averaging periods) shall be immediately reported to the Illinois EPA.

b. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

## 2.4 Mash Preparation and Fermentation

### 2.4.1 Description

Ethanol is produced by fermentation of the starch in corn. Ground corn is prepared for fermentation by converting it to "mash", by the addition of water and enzymes in a series of liquefaction and saccharification tanks that with heating, break the ground corn into fine slurry. In the fermentation tanks, yeast is added to the mash to begin the batch fermentation process.

The $CO_2$-rich gas generated by the fermentation tanks is routed through a scrubber to recover ethanol and other organic compounds in the exhaust. The fermentation scrubber is also referred to as the "$CO_2$ scrubber", as it scrubs the $CO_2$ stream from the fermentation tanks. The wastewater generated from the scrubber is returned back to the fermentation process for reuse.

The emissions from the mash preparation (mixer, process condensate tank, slurry tanks, flash tank, liquefaction tanks, and yeast tanks), along with the emissions of certain distillation units are controlled by the vent gas scrubber.

### 2.4.2 List of Emission Units and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Mash Preparation | Process Condensate Tank | Vent Gas Scrubber SV005 (Addressed with distillation operation, see Condition 2.5) |
| | Mixer | |
| | Slurry Tank | |
| | Liquefaction Tank | |
| | Yeast Tank | |
| | Misc. Chemical Tanks | ---- |
| Fermentation | Lab Fume Hood | Fermentation $CO_2$ Scrubber SV004 |
| | Fermenters (1-4) | |
| | Beer Well | |

### 2.4.3 Applicability Provisions and Applicable Regulations

a. An "affected unit" for the purpose of these unit specific conditions is an emission unit described in Conditions 2.4.1 and 2.4.2.

b. The affected units are subject to 35 IAC 212.321 [Refer to Condition 2.3.3(c)].

c. The affected units are subject to 35 IAC 219.301, which provides that no person shall cause or allow the discharge of more than 8 lbs/hr of organic material from an emission source, unless either emissions are controlled by at least 85 percent, as provided in 35 IAC 219.302, or the

emissions do not qualify as photochemically reactive material, as defined by 35 IAC 211.4690 and do not contribute to an odor nuisance.

Note: While ethanol is a VOM, it is not a photochemically reactive material as defined by 35 IAC 211.4690 and for purposes of 35 IAC 219.301.

d. The affected units that are served by the fermentation $CO_2$ scrubber are subject to 35 IAC 219.966(a), which provides that the owner or operator of a subject unit that complies with 35 IAC 219.966 by means of add-on air pollution control equipment shall operate capture and control equipment that achieves an overall reduction in uncontrolled VOM emissions of at least 81 percent from such units.

2.4.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected fermentation tanks not being subject to the NSPS for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes, 40 CFR 60 Subpart RRR. This because the affected fermentation tanks involve biological reactions and operate as batch processes.

b. This permit is issued based on 35 IAC 219.966(a) not applying to affected units that are not served by the fermentation $CO_2$ scrubber. This is because these units qualify for the exemption from this emission standard at 35 IAC 219.960(c). This exemption provides that 35 IAC 218.966 does not apply to an emission unit to which it would otherwise apply if the VOM emissions of the unit are less than or equal to 1.0 tons per calendar year and the total VOM emissions of the unit and other units that rely on this exemption to not comply with 35 IAC 219.966 to not exceed 5.0 tons per calendar year.

2.4.5 Operational and Production Limits and Work Practices

a. The key operating parameters of the fermentation $CO_2$ scrubber shall be maintained at levels that are consistent with levels at which emission testing demonstrated compliance with applicable requirements:

i. Minimum scrubber water flow rate: hourly average.

ii. Maximum scrubber water outlet temperature: hourly average.

iii. Maximum scrubber exhaust gas outlet temperature: hourly average.

b. If the differential pressure across the fermentation $CO_2$ scrubber is outside of the normal operating range as defined by the Permittee for a period of 4 hours, the Permittee shall inspect the scrubber within 24 hours and initiate appropriate corrective action to restore the pressure drop of the scrubber to the normal range.

c. The Permittee shall operate and maintain the fermentation $CO_2$ scrubber in accordance with written procedures developed and maintained by the Permittee.

2.4.6 Emission Limitations

a. The VOM emissions from the affected units controlled by fermentation $CO_2$ scrubber, i.e., the fermentation tanks and beer well, shall be controlled by Fermentation $CO_2$ Scrubber (SV004) at least 98.5 % weight percent.

b. i. The VOM emissions from the affected units that are controlled by fermentation $CO_2$ scrubber shall not exceed 4.80 pounds/hour and 20.9 tons/year.

ii. This permit is issued based on negligible VOM emissions from the affected units that are not controlled by either fermentation or vent gas scrubbers. For this purpose, VOM emissions from these units, in total, shall not exceed 0.1 lb/hour and 0.44 tons/year.

iii. This permit is issued based on negligible PM emissions from the affected units. For this purpose, PM emissions from these units, in total, shall not exceed 0.1 lb/hour and 0.44 tons/year.

iv. This permit is issued based on negligible $PM_{10}$ emissions from the affected units. For this purpose, $PM_{10}$ emissions from these units, in total, shall not exceed 0.0262 lb/hour and 0.12 tons/year.

v. This permit is issued based on negligible $PM_{2.5}$ emissions from the affected units. For this purpose, $PM_{2.5}$ emissions from these units, in total, shall not exceed 0.0143 lb/hour and 0.06 tons/year.

c. i. The acetaldehyde emissions of the affected units that are controlled by fermentation $CO_2$ scrubber shall not exceed 1.35 lbs/hour and 5.9 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected units that are controlled by fermentation $CO_2$ scrubber shall not exceed 0.07 lb/hour and 0.21 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde from the affected units that are controlled by fermentation $CO_2$ scrubber shall not exceed 0.21 lb/hour and 0.63 tons/year.

iv. The emissions of total HAPs from the affected units that are controlled by fermentation $CO_2$ scrubber shall not exceed 1.63 lb/hour and 6.53 tons/year.

2.4.7 Testing Requirements

The Permittee shall perform emission tests as requested for affected unit as specified in Condition 3.1.

2.4.8 Monitoring Requirements

a. i. The Permittee shall equip the fermentation $CO_2$ scrubber with continuous monitoring devices for the scrubber water flow rate, scrubbant discharge temperature at the bottom of the scrubber, scrubber exhaust gas discharge temperature, and differential pressure across the packed bed and demister section of the scrubber. These monitoring devices shall be installed, operated, maintained and calibrated according to the supplier's specifications and record data on no greater than 15-minute intervals and average hourly data. The Permittee shall maintain logs for the maintenance and repair of these devices.

ii. During any period when measurements are not recorded by the computerized data logging system, measurements shall be manually recorded at least twice per shift.

2.4.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected units:

a. Records of normal process parameters, with supporting calculations and documentation:

i. Fermentation feed rate.

ii. Fermentation tank liquid levels.

iii. Quantity of grind (ground grain) in each fermentation tank.

b. Records for any period during which any affected unit was in operation when the scrubber was not in operation or was malfunctioning so as to cause emissions in excess of applicable emissions limitation.

c. The Permittee shall keep a log for inspection, maintenance, and repairs for affected units and the associated scrubber.

d. Records for any upsets in fermentation operations or other operations that could generate additional VOM and HAP emissions, with a description of the incident, an estimate of the additional VOM and HAP emissions that occurred with supporting calculations, and background information.

e. Records of the VOM and HAP emissions from the affected units (tons/month and tons/year), as determined at the scrubber and any other vents, based on appropriate emission factors, with supporting calculations.

Note: For the purpose of these records, HAPS shall include acetaldehyde and other organic HAPs emitted from the affected units, as addressed during emissions testing.

2.4.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected units as follows. These notifications shall include the information specified by Condition 3.4.

i. If there is an exceedance of applicable requirements for the fermentation $CO_2$ scrubber by more than 2.0 percent, as determined by the monitoring required by Condition 2.4.8, that lasts longer than three hours, the Permittee shall immediately notify the Illinois EPA.

ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

b. If there is any deviation of the requirements of this permit, not addressed by the above reporting requirements, as determined by the records required by this permit or by other means, the Permittee shall submit a report with the quarterly compliance report.

c. Notwithstanding the above, if a deviation from the requirements of this permit will occur from required maintenance, repair or other activity that can be scheduled in advance, the Permittee shall also notify the Illinois EPA prior to undertaking such activity if it is feasible to do so. Such notification shall be submitted at least 5 days in advance unless the activity is scheduled less than 5 days in advance. This notification may be supplemented with additional information submitted

within 7 days of the deviation, as needed to provide all information required by Condition 3.4(a).

## 2.5 Distillation

### 2.5.1 Description

During the distillation process, the solids and water are separated from the ethanol-rich "beer" produced in the fermentation tanks with a vacuum distillation system, to produce approximately 190 proof ethanol (95% ethanol, 5% water). The remaining water in the ethanol is removed in a dehydration process to produce approximately 200 proof (100% ethanol). Denaturant is added to the finished product prior to storage.

The emissions from the distillation process, along with the emissions of certain units associated with preparation for fermentation are controlled by a scrubber.

Stillage from the bottom of the distillation system is routed to mechanical centrifuges for de-watering. The recovered water or "thin stillage" from the centrifuges is processed in a steam driven evaporator to produce thick syrup. The emissions from these units are small and not controlled. The wet cake from the centrifuges and the syrup solubles from the evaporator are mixed and conveyed to the feed operations to either be shipped out as wet cake or be further processed by drying.

Emissions of distillation operations and certain mash preparation units are controlled by a single vent gas scrubber (SV005).

### 2.5.2 List of Emission Units and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Distillation | Beer Column | ---- |
| | Stripper Column | ---- |
| | Rectifier Column | ---- |
| | Molecular Sieve | ---- |
| | Mash Screen | ---- |
| Solid Separation and Evaporation | Evaporators | ---- |
| | Centrifuges | ---- |
| | Whole Stillage Tank | Vent Gas Scrubber (SV005) |
| | Syrup Tank | |
| | Thin Stillage Tank | |

### 2.5.3 Applicability Provisions and Applicable Regulations

a. An "affected unit" for the purpose of these unit specific conditions is an emission unit described in Conditions 2.5.1 and 2.5.2.

b. The affected units are subject to 35 IAC 212.321, which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour

period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission unit, either alone or in combination with the emission of particulate matter form all other similar process emission units, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).

c. The affected units are subject to 35 IAC 219.301,which provides that no person shall cause or allow the discharge of more than 8 lbs/hour of organic material from an emission source, unless either emissions are controlled by at least 85 percent, as provided in 35 IAC 219.302, or the emissions do not qualify as photochemically reactive material, as defined by 35 IAC 211.4690 and do not contribute to an odor nuisance.

d. The affected units that are served by the vent gas scrubber are subject to 35 IAC 219.986(a), which provides that the owner or operator of a subject unit that complies with 35 IAC 219.986 by means of add-on air pollution control equipment shall operate capture and control equipment that achieves an overall reduction in uncontrolled VOM emissions of at least 81 percent from such units.

2.5.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected distillation units not being subject to either 40 CFR 60, Subpart NNN or RRR, Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations, or Reactor Processes, respectively, based upon guidance from USEPA that this regulation is not applicable to processing of material produced by biological reaction.

b. This permit does not address the applicability of 35 IAC 219.301 for the affected units that are controlled by the vent gas scrubber because the organic material emissions of the units are required to be controlled by greater than 85%, such that organic material emissions are less than 8.0 lbs/hour [Refer to Condition 2.5.6(a)].

c. This permit is issued based on the emission standard in 35 IAC 219.986(a) not applying to affected units that are not served by the vent gas scrubber. This is because these units qualify for the exemption from this emission standard at 35 IAC 219.980(c). This exemption provides that 35 IAC 219.986 does not apply to an emission unit to which it would otherwise apply if the VOM emissions of the unit are less than or equal to 2.5 tons per calendar year and the total VOM emissions of the unit and other units

that rely on this exemption to not comply with 35 IAC 219.986 to not exceed 5.0 tons per calendar year.

2.5.5 Operational and Production Limits and Work Practices

a. The operating parameter(s) of the vent gas scrubber shall be maintained at levels that are consistent with levels at which emission testing demonstrated compliance with applicable requirements:

i. Minimum scrubber water flow rate: hourly average.

ii. Maximum scrubber water outlet temperature: hourly average.

iii. Average scrubber exhaust gas outlet temperature: hourly average.

b. If the differential pressure across the vent gas scrubber is outside of the normal operating range as specified by the manufacturer for a period of 4 hours, the Permittee shall inspect the vent gas scrubber within 24 hours and initiate appropriate corrective action to restore the pressure drop of the vent gas scrubber to the normal range.

c. The Permittee shall operate and maintain the vent gas scrubber in accordance with written procedures that it develops and maintains.

d. The exhaust flow rate from the stack of the vent gas scrubber (SV005) shall be no more than 18.12 feet per second (ft/s) at all times during the mash phase.

e. A minimum height of SV005 of the affected grain milling operation shall be at least ninety-five feet (95') shall be maintained at all times during the mash phase.

2.5.6 Emission Limitations

a. The VOM emissions from the affected units including affected distillation operations units shall be controlled by the vent gas scrubber (SV005) at least 98.5 % weight percent.

b. i. Emissions of VOM from the affected units that are controlled by vent gas scrubber shall (SV005) not exceed 0.29 pound/hour and 1.27 tons/year.

ii. This permit is issued based on negligible VOM emissions from the affected units that are not controlled by the vent gas scrubber (SV005). For this purpose, VOM emissions from these units, in

total, shall not exceed 0.1 lb/hour and 0.44 tons/year.

iii. This permit is issued based on negligible PM emissions from the affected units. For this purpose, PM emissions from these units, in total, shall not exceed 0.1 lb/hour and 0.44 tons/year.

iv. This permit is issued based on negligible emissions of $PM_{10}$ from the affected units. For this purpose, $PM_{10}$ emissions from these units, in total, shall not exceed 0.0262 lb/hour and 0.12 tons/year.

v. This permit is issued based on negligible emissions of $PM_{2.5}$ from the affected units. For this purpose, $PM_{2.5}$ emissions from these units, in total, shall not exceed 0.0143 lb/hour and 0.06 tons/year.

c. i. The acetaldehyde emissions of the affected units controlled by vent gas scrubber (SV005) shall not exceed 0.02 lb/hour and 0.04 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected units controlled by vent gas scrubber (SV005) shall not exceed 0.01 lb/hour and 0.03 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the affected units controlled by vent gas scrubber (SV005) shall not exceed 0.02 lb/hour and 0.06 tons/year.

2.5.7 Testing Requirements

The Permittee shall perform emission tests as requested for an affected unit as specified in Condition 3.1.

2.5.8 Monitoring and Instrumentation Requirements

a. The Permittee shall equip the vent gas (SV005) scrubber with a continuous monitoring device for scrubber water flow rate, scrubbant discharge temperature at the bottom of the scrubber, and scrubber exhaust gas discharge temperature and the differential pressure across the packed bed and demister section of the scrubber. These monitoring devices shall be installed, operated, maintained and calibrated according to the supplier’s specifications and record data on no greater than 15-minute intervals and average hourly data. The Permittee shall maintain logs for the maintenance and repair of these devices.

b. During any period when measurements are not recorded by the computerized data logging system, measurements shall be manually recorded at least twice per shift.

2.5.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected units:

a. Records of normal distillation process operating parameters, hourly average, with supporting calculations and documentation:

i. Beer feed rate.

ii. Beer well ethanol content.

iii. 190-proof feed rate.

iv. 200-proof feed rate.

b. The exhaust flow rate from the vent gas scrubber (SV005) (ft/s) while the affected units are in use.

c. Records for any period during which any affected units was in operation when the vent gas scrubber (SV005) was not in operation or was malfunctioning so as to cause an emissions level in excess of the emissions limitation.

d. A log and log for inspection, maintenance, and repairs for affected units and the associated scrubber.

e. Records for any upsets in the affected units or other operations that could generate additional VOM or HAP emissions, with a description of the incident, an estimate of the additional VOM and HAP emissions that occurred with supporting calculations, and background information.

f. Records of the VOM and HAP emissions from the affected units (tons/month and tons/year), as determined at the vent gas scrubber (SV005) and any other vents, based on appropriate emission factors, with supporting calculations.

Note: For the purpose of these records, HAPs shall include acetaldehyde and other organic HAPs emitted from the affected units as addressed during emissions testing.

2.5.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for

the affected units as follows. These notifications shall include the information specified by Condition 3.4.

i. If there is an exceedance of applicable requirements for the vent gas scrubber by more than 2.0 percent, as determined by the monitoring required by Condition 2.5.8, that lasts longer than three hours, the Permittee shall immediately notify the Illinois EPA.

ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

b. If there is any deviation of the requirements of this permit, not addressed by the above reporting requirements, as determined by the records required by this permit or by other means, the Permittee shall submit a report with the quarterly compliance report.

c. Notwithstanding the above, if a deviation from the requirements of this permit will occur from required maintenance, repair or other activity that can be scheduled in advance, the Permittee shall also notify the Illinois EPA prior to undertaking such activity if it is feasible to do so. Such notification shall be submitted at least 5 days in advance unless the activity is scheduled less than 5 days in advance. This notification may be supplemented with additional information submitted within 7 days of the deviation, as needed to provide all information required by Condition 3.4(a).

## 2.6 Feed Drying and Handling Operations

### 2.6.1 Description

A natural gas fired ring dryer will be used to produce DDGS from wet cake. The dryer will be equipped with a cyclone to control emissions of PM, $PM_{10}$, $PM_{2.5}$, and a regenerative thermal oxidizer (RTO) to control emissions of CO, VOM, and HAP from the dryer. The RTO also controls the associated feed cooler, which will be exhausted through the dryer after passing through a baghouse for control of its PM, $PM_{10}$, $PM_{2.5}$ emissions.

### 2.6.2 List of Emission Units and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Feed Drying and Cooing | Dryer/cyclones | Regenerative Thermal Oxidizer |
| | Feed Cooler | |
| | Conveyors | ---- |
| Feed/DDGS Storage and Loadout | Dry Feed (DDGS) Storage | Filter (baghouse) SV008A |
| | Feed Conveyor #1 | Filters (baghouse) SV001C) |
| | Feed Conveyor #2 | Filters (baghouse) SV001D) |
| | DDGS Truck Loadout | Filter (baghouse) SV008B |
| | DDGS Rail Loadout | ---- |
| | Wet Cake Storage and Loadout | ---- |

### 2.6.3 Applicability Provisions and Applicable Regulations

a. An “affected unit” for the purpose of these unit specific conditions is an emission unit described in Conditions 2.6.1 and 2.6.2.

b. The affected units are subject to 35 IAC 212.321 [Refer to Condition 2.3.3(c)].

c. The affected units are subject to 35 IAC 219.301 [Refer to Condition 2.4.3(c)].

d. The emission of smoke or other particulate matter from the affected units shall not have an opacity greater than 30 percent. Compliance with this limit shall be determined by 6-minute averages of opacity measurements in accordance with USEPA Reference Method 9 [35 IAC 212.109 and 212.123(a)].

### 2.6.4 Non-Applicability of Regulations of Concern

For the feed dryer, this permit does not address the applicability of 35 IAC 219.301 because the organic material

emissions of the feed dryer are required to be controlled by greater than 85%, such that organic material emissions are less than 8.0 lbs/hour [Refer to Condition 2.6.6(a)].

2.6.5 Operational and Production Limits and Work Practices

a. i. Natural gas shall be the only fuel fired in the feed dryer.

ii. The rated firing rate of the feed dryer shall not exceed 90 million Btu/hour.

iii. The feed dryer shall be equipped, operated, and maintained with low $NO_x$ burners.

b. i. Natural gas shall be the only fuel fired in the RTO.

ii. The rated firing rate of the RTO shall not exceed 18 million Btu/hour.

c. i. During operation of the feed dryer, the key operating parameters of the feed dryer/control system shall be maintained at levels that are consistent with levels at which emission testing demonstrated compliance with applicable requirements, including the following:

A. Maximum temperature at inlet of feed dryer: °F.

B. Minimum Pressure drop across the cyclones: inches $H_2O$.

ii. During periods when feed is present in the dryer or emissions from other units are vented to the RTO, the minimum RTO combustion chamber temperature shall be maintained at the manufacturer’s recommended temperature or a temperature that is consistent with the temperature at which emission testing demonstrated compliance with applicable requirements.

iii. The combustion chamber of the RTO shall be preheated to the manufacturer’s recommended temperature or a temperature that is consistent with the most recent emission test in which compliance was demonstrated, prior to sending the feed to the dryer or venting other units to the RTO.

iv. Notwithstanding the above, for the purpose of evaluation of the control system and further emission testing, the Permittee may operate the control system at different operating parameters in accordance with a detailed plan describing the

evaluation and testing program submitted to and approved by the Illinois EPA.

d. i. When feed is present in the dryer, the dryer shall be vented to the bypass stack for the RTO only as necessary for operating safety, e.g., purge and reignition of the dryer/RTO system in the event of a burner flameout or orderly shutdown of the dryer.

ii. Other units controlled by the RTO shall be vented either to the RTO or to their existing control equipment and stacks.

e. The Permittee shall operate and maintain the dryer and associated control system in accordance with written procedures developed and maintained by the Permittee. These procedures shall provide for good air pollution control practices to minimize emissions and shall include the Permittee's standard operating procedures for startup, normal operation, and shutdown of the dryer system and address likely malfunction and upsets events for the dryer system.

f. Emissions of particulate matter from feed DDGS loadout shall be controlled by loadout practices to minimize loss of dust.

i. The Permittee shall immediately close all overhead doors upon entry of any truck into the DDGS Loadout building during DDGS loadout of spent material to prevent fugitive emissions. The overhead doors shall be fully closed and kept fully closed during all such events. Any other doors, e.g., entry door, at the DDGS Loadout building shall be designed and operated as self-closing.

ii. DDGS loadout by rail cars from DDGS operations may only take place in 10 percent or less of all total loadouts of spent materials from DDGS operations on an annual basis.

iii. Grain feed conveyance and DDGS loadout operations, including associated baghouse for each, shall only occur from 7 am to 3 pm on Monday through Friday, and for no more than a total of 2,080 hours/yr.

A. The Permittee shall only operate one feed conveyor and associated baghouse at a time and for no more than 1,040 hrs/yr.

B. The Permittee shall only operate the DDGS loadout operations and associated baghouse for no more than 1,040 hrs/yr.

2.6.6 Emission Limitations

a. i. The VOM emissions from the feed dryer/cooler (RTO) shall be controlled by at least 98 weight percent or to a concentration of no more than 20 ppmv, whichever is less stringent.

ii. The CO emissions from the feed dryer/cooler (RTO) shall be controlled by at least 90 weight percent or to a concentration of no more than 100 ppmv, whichever is less stringent.

b. i. Emissions of the feed dryer (RTO) shall not exceed the following limits:

| Pollutant | Emissions | |
|---|---|---|
| | (Lbs/Hour) | (Tons/Year) |
| $NO_x$ | 7.44 | 32.60 |
| CO | 6.85 | 30.00 |
| VOM | 4.60 | 20.15 |
| PM/$PM_{10}$* | 4.82/4.82 | 21.11/21.11 |
| $PM_{2.5}$ | 4.82 | 21.11 |
| $SO_2$ | 0.06 | 0.30 |

* PM emission limits are based on filterable particulate and $PM_{10}$ emission limits are based on filterable and condensable particulate.

ii. A. Fabric filter (baghouse) on dry feed (DDGS) loadout shall comply with an emission limit of 0.001 grain per standard cubic feet (gr/scf).

B. Emissions of PM from DDGS Storage and DDGS loadout shall not exceed 0.03 lb/hour and 0.03 tons/year.

C. This permit is issued based on negligible emissions of $PM_{10}$ from the DDGS storage and DDGS loadout. For this purpose, $PM_{10}$ emissions from these units, in total, shall not exceed 0.03 lb/hour and 0.03 tons/year.

D. This permit is issued based on negligible emissions of $PM_{2.5}$ from the DDGS storage and DDGS loadout. For this purpose, $PM_{2.5}$ emissions from these units, in total, shall not exceed 0.0055 lb/hour and 0.0059 tons/year.

iii. A. Emissions of PM from grain feed conveyors controlled by SV001C and SV001D shall not exceed 0.05 lb/hour and 0.03 tons/year.

B. This permit is issued based on negligible emissions of $PM_{10}$ from the grain feed conveyors. For this purpose, $PM_{10}$ emissions from these units, in total, shall not exceed 0.0514 lb/hour and 0.03 tons/year.

C. This permit is issued based on negligible emissions of $PM_{2.5}$ from the grain feed conveyors. For this purpose, $PM_{2.5}$ emissions from these units, in total, shall not exceed 0.0087 lb/hour and 0.0052 tons/year.

iv. A. Emissions of VOM from the wet cake transfer and loadout operation shall not exceed 1.0 tons/month and 5.53 tons/year.

B. This permit is issued based on negligible emissions of PM emissions from the wet cake transfer and loadout operation. For this purpose, PM emissions shall not exceed 0.002 lb/hour and 0.01 tons/year.

C. This permit is issued based on negligible emissions of $PM_{10}$ from the wet cake transfer and loadout operation. For this purpose, $PM_{10}$ emissions from these units, in total, shall not exceed 0.001 lb/hour and 0.005 tons/year.

D. This permit is issued based on negligible emissions of $PM_{2.5}$ from the wet cake transfer and loadout operation. For this purpose, $PM_{2.5}$ emissions from these units, in total, shall not exceed 0.0002 lb/hour and 0.0001 tons/year.

c. i. The acetaldehyde emissions of the feed dryer/RTO shall not exceed 0.28 lb/hour and 1.22 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the feed dryer/RTO shall not exceed 0.49 lb/hour and 2.13 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the feed dryer/RTO shall not exceed 0.99 lb/hour and 4.36 tons/year.

iv. The emissions of total HAPs from the feed dryer/RTO shall not exceed 1.27 lb/hour and 5.6 tons/year.

2.6.7 Testing Requirements

a. i. The Permittee shall perform emission tests as requested for an affected unit as specified in Condition 3.1.

ii. Thereafter, upon written request by the Illinois EPA, the Permittee shall have emission testing conducted for affected feed dryers (RTO) in accordance with the methods and procedures specified in Condition 3.1 for pollutant(s) specified in the request. This testing shall be conducted within 90 days of the request or such later date agreed to by the Illinois EPA.

b. Upon written request by the Illinois EPA, the Permittee shall have opacity observation for the affected feed dryers (RTO) conducted in accordance with the methods and procedures specified by Condition 3.1 for feed dryer as specified in such request.

2.6.8 Monitoring and Instrumentation Requirements

a. The Permittee shall install, operate, and maintain the following monitoring devices for the feed dryer, which shall be operated at all times that the feed dryer is in operation. These devices shall record appropriate parameters at least every 15 minutes and this data and hourly average data shall both be recorded.

i. Inlet temperature and outlet temperature of the feed dryer.

ii. Differential pressure (pressure drop) across the cyclones.

iii. Combustion chamber temperature of the RTO.

b. The Permittee shall install, operate, and maintain devices to monitor the valve or damper position on the flow control devices directing the various exhaust streams to the RTO, which shall be operated at all times that the plant is in operation. The position of these valves shall be monitored electronically by the plant operating system.

c. i. These devices shall be installed, operated, maintained and calibrated in accordance with good air pollution control practice for reliable operation and accurate data. The Permittee shall maintain logs for the maintenance and repair of these devices.

ii. The temperature monitor shall be maintained within an accuracy of 1 percent.

2.6.9 Recordkeeping Requirements

a. The Permittee shall maintain records of the following items:

i. Design information for the feed dryer/RTO:

   A. The design heat input of the feed dryer.

   B. Moisture removal capacity, lbs water/hour.

   C. The design heat input of the RTO, Btu/hour.

ii. Feed production as shipped wet or dry (tons/month and tons/year, each).

iii. A. Natural gas usage (scf/month and scf/year) for dryer.

   B. Natural gas usage (scf/month and scf/year) for RTO.

iv. Amount of DDGS loadout by rail and by truck (tons/mo and tons/year).

v. Grain feed conveyance and DDGS loadout operations operating hours (hrs/wk and hrs/yr).

vi. Records of time, date and duration of each grain conveyance and DDGS loadout operation event, including associated baghouse used for each, detailing specific conveyor and corresponding filter/baghouse used.

vii. Records of opening and fully closing overhead doors during truck loadout events, with a description of any incident and explanation of events when the door was not fully closed during a truck loadout event and an estimate of the additional PM, $PM_{10}$ and $PM_{2.5}$ emissions that occurred, with supporting calculations and background information.

viii. Records for venting the feed dryer through the bypass stack and upsets in feed dryer operations or other operations that could generate additional emissions, with a description of the incident, explanation, and corrective actions and any preventative measures taken, and an estimate of the additional CO, VOM, PM, $PM_{10}$, $PM_{2.5}$, and HAP emissions that occurred, with supporting calculations and background information.

ix. Monthly and annual $NO_x$, CO, PM, $PM_{10}$, $PM_{2.5}$, $SO_2$, VOM, and HAP emissions from the feed dryer/RTO, with supporting calculations.

Note: For the purpose of these records, HAPS shall include acetaldehyde and other organic HAPs emitted from the dryer identified during emissions testing.

b. The Permittee shall maintain an operation log and a log for inspection, maintenance, and repairs for feed dryer and RTO, including the time when feed is present in the dryer, the RTO not in operation, or the RTO is bypassed.

c. The Permittee shall comply with the requirements of Condition 2.3.9(c), (d), (e) and (f) for handling, storage and loadout of feed.

2.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected units as follows. These notifications shall include the information specified by Condition 3.4.

a. i. If there is an exceedance of applicable requirements for the RTO, as determined by the monitoring required by Condition 2.6.8 that lasts longer than two hours, the Permittee shall immediately notify the Illinois EPA. The initial notification for such a deviation may be supplemented with additional information submitted within 7 days of the deviation, as needed to provide all information required by Condition 3.4.

ii. Excess opacity that lasts more than 24 minutes (four 6-minute averaging periods) shall be immediately reported to the Illinois EPA.

iii. The deviations addressed above and all other deviations from applicable requirements for the RTO shall be reported with the quarterly compliance report.

b. If there is any deviation of the requirements of this permit, not addressed by the above reporting requirements, as determined by the records required by this permit or by other means, the Permittee shall submit a report with the quarterly compliance report.

c. Notwithstanding the above, if a deviation from the requirements of this permit will occur from required maintenance, repair or other activity that can be scheduled in advance, the Permittee shall also notify the Illinois EPA prior to undertaking such activity if it is feasible to do so. Such notification shall be submitted at least 5 days in advance unless the activity is scheduled less than 5 days in advance. This notification may be supplemented with additional information submitted within 7 days of the deviation, as needed to provide all information required by Condition 3.4(a).

## 2.7 Ethanol and Denaturant Storage Tanks

### 2.7.1 Description

Internal floating roof storage tanks are used to store denaturant and product ethanol.

### 2.7.2 List of Emission Equipment and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Storage Tanks | Two Ethanol Day Tanks Nom. Capacity 169,000 Gallons | Internal Floating Roof with Primary and Secondary Seals |
| | Two Product Storage Tanks Nom. Capacity 571,000 Gallons | Internal Floating Roof with Primary and Secondary Seals |
| | Denaturant Tank Nom. Capacity 88,000 Gallons | Internal Floating Roof with Primary and Secondary Seals |

### 2.7.3 Applicability Provisions

a. An "affected tank," for the purposes of these unit specific conditions is a storage tank described in Conditions 2.7.1 and 2.7.2.

b. The affected tanks are subject to the NSPS for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb, and related provisions in Subpart A.

c. The affected tanks are subject to the control requirements of 35 IAC 219.122, which requires a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA. The Illinois EPA has not approved any alternative control [Submerged Loading Pipe - 35 IAC 219.122(b)].

### 2.7.4 Non-Applicable Regulations

For the affected tanks, this permit does not address the applicability of 35 IAC 219.121, 219.127, and 219.128. This is based on the Illinois EPA's finding that compliance with 40 CFR 60, Subpart Kb assures compliance with 35 IAC 219.121, 219.127, and 219.128, following the review of the requirements of 40 CFR 60 Subpart Kb and 35 IAC 219.121, 219.127, and 219.128.

### 2.7.5 Control Requirements

Each affected tank shall be equipped with the following closure devices between the wall of the storage vessel and the edge of the internal floating roof or other device complying with the NSPS [40 CFR 60.112b(a)(1)(ii)]:

a. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the

internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

2.7.6 Emission Limitations

a. Emissions of VOM from the affected tanks shall not exceed 1.58 tons/year. Emissions from the affected tanks shall be determined using published USEPA methodology for calculating VOM emissions from storage tanks and based on operating information for the affected tanks.

b. i. The acetaldehyde emissions of the affected tanks shall not exceed 0.0005 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected tanks shall not exceed 0.01 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the affected tanks shall not exceed 0.02 tons/year.

2.7.7 Operating Requirements

a. Each affected tank is limited to the storage of ethanol or denaturant.

b. The Denaturant Storage Tank throughput shall not exceed 140,000 gallons/month and 1,400,000 gallons/year.

c. Each affected tank shall be operated in compliance with the operating requirements of 40 CFR 60.112b(a)(1) and 60.113b(a), as follows:

i. The internal floating roof shall float on the liquid surface at all times, except during those intervals when the storage tank is being completely emptied and subsequently refilled and the roof rests on its leg supports. When the roof is resting on its leg supports, the process of emptying or refilling shall be continuous and shall be accomplished as rapidly as possible [40 CFR 60.112b(a)(1)(i)].

ii. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents shall provide a projection below the liquid surface [40 CFR 60.112b(a)(1)(iii)].

iii. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid which is maintained in a closed position at all

times (i.e., no visible gaps) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use [40 CFR 60.112b(a)(1)(iv)].

iv. Automatic bleeder vents shall be equipped with a gasket and be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports [40 CFR 60.112b(a)(1)(v)].

v. Rim space vents shall be equipped with a gasket and be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting [40 CFR 60.112b(a)(1)(vi)].

vi. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening [40 CFR 60.112b(a)(1)(vii)].

vii. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover [40 CFR 60.112b(a)(1)(viii)].

viii. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover [40 CFR 60.112b(a)(1)(ix)].

ix. A tank that is in-service shall be repaired or emptied upon identification in an inspection that the floating roof is not resting on the surface of the VOL, there is liquid accumulated on the roof, the seal is detached, or there are holes or tears in the seal fabric. These actions shall be completed within 45 days of the inspection unless an extension is granted [40 CFR 60.113b(a)(2) and (a)(3)(ii)].

x. A tank that is empty shall be repaired prior to refilling the tank upon identification in an inspection that the floating roof has defects, the primary seal has holes, tears or other openings in the seal or seal fabric, or the secondary seal has holes, tears or other openings in the seal or seal fabric, or the gaskets no longer close off [40 CFR 60.113b(a)(3)(ii) and (a)(4)].

2.7.8 Inspection Requirements

The Permittee shall fulfill the applicable testing and procedures requirements of 40 CFR 60.113b(a) for each affected tank, including the following:

a. For affected tanks equipped with a liquid-mounted, on an annual basis, visually inspect the internal floating roof and the primary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage tank from service within 45 days. If a failure that is detected during this inspection cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Illinois EPA in the inspection report required in Condition 2.7.10 (40 CFR 60.115b(a)(3)). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the storage tank will be emptied as soon as possible [40 CFR 60.113b(a)(2)].

b. As applicable for tanks equipped with both primary and secondary seals, visually inspect each affected tank as follows [40 CFR 60.113b(a)(3)]:

i. Visually inspect the tank as specified by 40 CFR 60.113(a)(4) at least every 5 years; or

ii. Visually inspect the tank as specified by 40 CFR 60.113(a)(2) at least once every 12 months.

c. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the tank is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage tank with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of tanks for which annual visual inspection are performed and at intervals greater than 5 years in the case of tanks

equipped with double-seal systems complying by means of 40 CFR 60.112b(a)(1)(ii)(B) [40 CFR 60.113b(a)(4)].

The Permittee shall give prior notification to the Illinois EPA for the above inspections as required by 40 CFR 60.113b(a)(5) [See also Condition 2.7.10(b).

2.7.9 Recordkeeping Requirements

a. The Permittee shall fulfill the applicable recordkeeping requirements of 40 CFR 60.115b for each affected tank pursuant to 40 CFR 60.115b(a), including keep a record of each inspection performed as required by Condition 2.7.8 [40 CFR 60.115b(a)(2)].

i. The date the inspection was performed;

ii. Who performed the inspection;

iii. The method of inspection;

iv. The observed condition of each feature of the internal floating roof (seals, roof decks and fittings), with the raw data recorded during the inspection; and

v. Summary of compliance.

b. The Permittee shall maintain records of the following for each affected tank to demonstrate compliance with the Out-of-Service Inspection requirements of Condition 2.7.8(c):

Sufficient records to identify whenever the tank is empty for any reason or whenever repairs are made as a result of regular inspection or incident of roof damage or defect.

c. i. The Permittee shall keep the operating records required by 40 CFR 60.116b for each affected tank, as follows:

Records of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period [40 CFR 60.116b(c)].

ii. The Permittee shall keep the Material Safety Data Sheet (MSDS) or other comparable data for the VOLs stored in each affected tanks, which records shall be used to identify HAPs that may be emitted from the storage and loadout of VOL.

d. Throughput and identification of the materials stored in the Storage Tanks (gallons/month and gallons/year);

e. The Permittee shall keep monthly and annual VOM and HAP emissions attributable to the affected tanks in tons/month and tons/year in accordance with the compliance procedures in Condition 2.7.6 to be calculated and recorded at least annually, unless a more frequent determination is necessary to determine whether the plant's annual emissions of VOM have exceeded the limit in Table I.

2.7.10 Reporting Requirements

a. The Permittee shall fulfill all applicable reporting and notification requirements of the NSPS, 40 CFR 60.7, for the affected tanks.

b. The Permittee shall submit written notifications and reports to the Illinois EPA as required by the NSPS, for each affected tank, as follows:

i. If any of the conditions described in Condition 2.7.8(c) are detected during the annual visual inspection required in Condition 2.7.8, a report shall be furnished to the Illinois EPA within 30 days of the inspection. Each report shall identify the tank, the nature of the defects, and the date the tank was emptied or the nature of and date the repair was made [40 CFR 60.115b(a)(3)].

ii. Notify the Illinois EPA in writing at least 30 days prior to the filling or refilling of a tank for which an inspection is required by Conditions 2.5.8 to afford the Illinois EPA the opportunity to have an observer present. If such inspection is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the tank, notify the Illinois EPA at least 7 days prior to the refilling of the tank. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Illinois EPA at least 7 days prior to the refilling [40 CFR 60.113b(a)(5)].

c. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected tanks as follows. These notifications shall include the information specified by Condition 3.5.

i. If a tank is damaged so there is a deviation from an applicable requirements which is not repaired or otherwise corrected within 24 hours, the Permittee shall then immediately notify the Illinois EPA.

ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

2.7.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected tank without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to continue to comply with applicable requirements and to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Changes in seal type and configuration, made during the course of normal repair and maintenance of an affected storage tank's floating roof.

## 2.8 Loading Racks

### 2.8.1 Description

The loading racks transfer ethanol into tank trucks, railcars and barges for shipment. VOM emissions occur from the VOM-laden air displaced from the tank when material is loaded.

### 2.8.2 List of Emission Units and Pollution Control Equipment

| Process | Description | Emission Control Equipment |
|---|---|---|
| Ethanol Loadout | Truck Loadout | Flare |
| | Rail Loadout | Dedicated Transport |
| | Barge Loadout | |

### 2.8.3 Applicability Provisions and Applicable Regulations

a. An "affected loading rack," for the purpose of these unit-specific conditions, is a loading rack described in Conditions 2.8.1 and 2.8.2.

b. The affected loading rack are subject to 35 IAC 219.122(a), which provides that no person shall cause or allow the discharge of more than 8 lbs/hour of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having through-put of greater than 151 cubic meters per day (40,000 gallons/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes.

### 2.8.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected loading rack not being subject to applicable requirements for handling of gasoline because the vapor pressure of the ethanol product is less than 4.0 psi and hence will not be subject to the requirements applicable to handling of gasoline, including 40 CFR 60 Subpart XX, the NSPS for Bulk Gasoline Terminals.

### 2.8.5 Control Requirements and Operational Limitations

a. The Permittee shall route all vapor displaced by ethanol loadout into the truck to the flare system.

b. The loadout of ethanol into railcars or barges are only allowed to ethanol-dedicated tankers.

c. The flare shall be designed and be operated to comply with applicable requirements of 40 CFR 60.18, including:

i. The flare shall be operated by the Permittee with no visible emissions as determined by the methods specified in 40 CFR 60.18(f)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. The flare shall be operated by the Permittee with a flame present when vapors displaced by ethanol loadout are being vented to it, as determined by the methods specified in 40 CFR 60.18(f)(2).

iii. The flare shall be used only with the net heating value of the gas being combusted being 300 Btu/scf or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f)(3). Note: Natural gas or other gaseous fuel may be added to the displaced vapors to comply with this requirement.

iv. The flare shall be operated by the Permittee with an exit velocity less than the maximum allowable velocity, $V_{max}$, as determined by the method specified in 40 CFR 60.18(f)(6).

v. The Permittee shall monitor the flare to ensure that it is operated and maintained in conformance with the manufacturer's design, as required by 40 CFR 60.18(d).

d. The Permittee shall generally operate the ethanol loading rack including the flare system in accordance with good air pollution control practice to minimize emissions of VOM.

e. The vapor control system shall be operated at all times during the loading of organic liquids and all displaced vapors are to be vented only to the vapor control system.

f. At all times during the loading of organic liquids, the vapor control system shall operate and all vapors displaced in the loading of organic materials are to be vented only to the vapor control system.

g. There shall be no liquid drainage from the loading device of the affected loading rack when it is not in use.

h. The Permittee shall provide a pressure tap or equivalent on the vapor collection system associated with an affected loading rack. The vapor collection system and the organic material loading equipment shall be operated in such a manner that it prevents avoidable leaks of liquid during loading or unloading operations and prevents the gauge pressure from exceeding 18 inches of water and the vacuum

from exceeding 6 inches of water and to be measured as close as possible to the vapor hose connection.

i. All loading and vapor return lines shall be equipped with fittings that are designed to be vapor tight.

2.8.6 Emission Limitations

a. This permit is issued based on the flare achieving a nominal VOM destruction efficiency of 98 percent.

b. Emissions of nitrogen oxides ($NO_x$), carbon monoxide (CO) and volatile organic material (VOM) from ethanol loadout and flaring shall not exceed the following limits:

| | Emissions | |
|---|---|---|
| Pollutant | (Tons/Month) | (Tons/Year) |
| $NO_x$ | 0.21 | 2.14 |
| CO | 0.36 | 3.57 |
| VOM | 1.39 | 13.81 |

These limits are based on the information provided in the permit application including calculated loading loss (8.859 lbs/1000 gallons for truck loading and 0.49 lbs/1000 gallons for railcar and barge loading), maximum throughput (55.0 million gallons/year), and worst case VOM estimation (barge loading).

c. This permit is issued based on negligible emissions of $SO_2$ from the flare. For this purpose, emissions shall not exceed a nominal emission rate of 0.00003 lb/hour and 0.0001 tons/year.

d. This permit is issued based on negligible emissions of PM emissions from the flare. For this purpose, PM emissions from these units, in total, shall not exceed 0.0004 lb/hour and 0.0018 tons/year.

e. This permit is issued based on negligible emissions of $PM_{10}$ emissions from the flare. For this purpose, $PM_{10}$ emissions from these units, in total, shall not exceed 0.0004 lb/hour and 0.0018 tons/year.

f. This permit is issued based on negligible emissions of $PM_{2.5}$ emissions from the flare. For this purpose, $PM_{2.5}$ emissions from these units, in total, shall not exceed 0.00004 lb/hour and 0.0018 tons/year.

g. i. The acetaldehyde emissions of the affected loading racks shall not exceed 0.003 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected loading racks shall not exceed 2.07 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the affected loading racks shall not exceed 5.65 tons/year.

2.8.7 Testing Requirements

Upon written request by the Illinois EPA, The Permittee shall perform emission tests as requested for the affected loading rack as specified in Condition 3.1.

2.8.8 Monitoring Requirements

a. The Permittee shall operate the affected loading rack and flare in accordance with written procedures. These procedures may be the procedures provided by the supplier of equipment or procedures developed and maintained by the Permittee.

b. The Permittee shall keep a copy of the operating and maintenance procedures for the flare system provided by the supplier at a location at the plant where they are readily accessible to the individuals who are responsible for operation and maintenance of the flare.

2.8.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected loading rack:

a. Operating records for each day on which ethanol loadout is conducted, as follow:

i. Date and amount of ethanol loaded through truck, railcar and barge loadout operation.

ii. Confirmation that established operating procedures were followed.

iii. Confirmation that the flare functioned properly, i.e., a flame was present and no visible emissions were observed except as allowed by 40 CFR 60.18(c)(1).

b. Records for each event when ethanol loadout continues when the flare is not operating properly to control VOM emissions:

i. Date, time, and duration of event.

ii. Description of event.

iii. Estimated amount of ethanol loaded until the situation was corrected or loadout ceased.

iv. Reason why loadout could not be immediately ceased.

v. Corrective actions taken.

vi. Actions taken to prevent or reduce the likelihood of future occurrences.

c. An inspection, maintenance and repair log for the flare system, which lists activities that are performed, with date and responsible individual(s).

d. Monthly and annual records of the emissions of VOM, CO, $NO_x$, PM, $PM_{10}$, $PM_{2.5}$, $SO_2$, and HAP from the affected loading rack based on appropriate emission factors developed using published USEPA emission estimation methodology and standard emission factors with supporting data and calculation. For periods when the flare does not operate properly, specific estimates of emissions shall be made, accompanied by written justification or explanation.

2.8.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected loading rack as follows. These notifications shall include the information specified by Condition 3.4.

i. If there is an exceedance of applicable requirements during loadout of ethanol that lasts longer than one hour, the Permittee shall immediately notify the Illinois EPA. For this purpose, an exceedance shall be considered to continue even if operation of the loading rack is interrupted if the exceedance condition is still present when operation is resumed.

ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

2.8.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical changes with respect to these units without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee’s obligation to properly obtain a construction permit in a timely manner if these changes would accompany an activity that would constitute construction or modification of an emission unit, as defined in 35 IAC 201.102.

Changes in fittings made during the course of repair and maintenance of the affected loading rack.

## 2.9 Leaking Components

### 2.9.1 Description

Equipment components, such as valves, flanges, etc., involved with the fermentation, distillation and subsequent handling of ethanol and denaturant generate VOM emissions when they leak.

### 2.9.2 List of Emission Equipment and Pollution Control Equipment

| Emission Unit | Description | Emission Control Measures |
|---|---|---|
| Process Components (Valves, Flanges, Pumps, Seals, etc.) | Processing of Organic Material through the Plant's Piping System | Leak Detection and Repair Program |

### 2.9.3 Applicability Provisions

a. The "affected components" are equipment components, described in Condition 2.9.1 and 1.9.2 that are in VOM service.

b. The affected components associated with the fermentation and distillation operations are subject to the NSPS for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, 40 CFR 60, Subpart VVa, and related provisions in Subpart A.

### 2.9.4 Non-Applicable Regulations

a. This permit is issued based on affected components not being subject to the requirements of 35 IAC Part 219, Subpart Q, Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment, pursuant to the applicability provisions at 35 IAC 219.420, because the plant will have less than 1,500 components in gas or light liquid service (which components are used to manufacture the chemicals or polymers listed in 35 IAC Part 219, Appendix D).

b. For the affected components, this permit does not address the applicability of 35 IAC 219.142 to certain components because the leaks of organic material are being addressed by the requirements of the NSPS, 40 CFR 60 Subpart VVa or comparable requirements, which require timely repairs of any leaking component.

### 2.9.5 Control Requirements

For affected components, that are subject to 40 CFR 60, Subpart VVa the Permittee shall follow the work practice requirements set forth in 40 CFR 60.482-1a (Standards: General), 60.482-2a (Standards: Pumps in light liquid service), 60.482-4a

(Standards: Pressure relief devices in gas/vapor service), 60.482-5a (Standards: Sampling connection systems), 60.482-6a (Standards: Open-ended valves or lines), 60.482-7a (Standards: Valves in gas/vapor service and light liquid service)*, 60.482-8a (Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors), 60.482-9a (Standards: Delay of repair), and 60.482-10a (Standards: Closed vent systems and control devices).

* The Permittee may elect to utilize the alternative standards of 40 CFR 60.483-1a or 60.483-2a, where applicable.

2.9.6 Emission Limitations

a. Emissions of VOM from the affected components shall not exceed 5.34 tons per year, total, as determined by use of appropriate USEPA methodology for estimating emissions from leaking components.

b. i. The acetaldehyde emissions of the affected components shall not exceed 0.002 tons/year.

ii. The emissions of individual HAPs, other than acetaldehyde, from the affected components shall not exceed 0.002 tons/year.

iii. The emissions of total HAPs, other than acetaldehyde, from the affected components shall not exceed 0.003 tons/year.

2.9.7 Operating Requirements

a. For affected components that are not subject to 40 CFR Part 60, Subpart VVa, the Permittee shall repair any affected component from which a leak of volatile organic liquid (VOL) is detected or observed. The repair shall be completed as soon as practicable but no later than 21 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted.

b. For affected components that are subject to 40 CFR 60, Part 60, Subpart VVa the Permittee shall follow the operating requirements set in 40 CFR 60.482-1a (Standards: general), 60.482-2a (Standards: Pumps in light liquid service), 60.482-4a (Standards: Pressure relief devices in gas/vapor service), 60.482-5a (Standards: Sampling connection systems), 60.482-6a (Standards: Open-ended valves or lines), 60.482-7a (Standards: Valves in gas/vapor service and light liquid service), 60.482-8a (Standards: Pumps and valves in heavy liquid service,

pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors), 60.482-9a (Standards: Delay of repair), and 60.482-10a (Standards: Closed vent systems and control devices).

2.9.8 Inspection Requirements

For all affected components that are in VOC service, as defined by 40 CFR 60.481, other than components in vacuum service, the Permittee shall follow the inspection requirements set forth in 40 CFR 60.482-1a (Standards: General), 60.482-2a (Standards: Pumps in light liquid service), 60.482-4a (Standards: Pressure relief devices in gas/vapor service), 60.482-5a (Standards: Sampling connection systems), 60.482-6a (Standards: Open-ended valves or lines), 60.482-7a (Standards: Valves in gas/vapor service and light liquid service)*, 60.482-8a (Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors), 60.482-9a (Standards: Delay of repair), and 60.482-10a (Standards: Closed vent systems and control devices).

* The Permittee may elect to utilize the alternative standards of 40 CFR 60.483-1a through 60.483-2a, where applicable.

2.9.9 Recordkeeping Requirements

The Permittee shall maintain the following records related to affected components:

a. The applicable records as specified in 40 CFR 60.486a.

b. A leaking components monitoring log, which shall contain the following information:

i. The name of the process unit where the component is located;

ii. The type of component (e.g., valve, pump seal);

iii. The identification number of the component;

iv. The date on which a leaking component is discovered;

v. The date on which a leaking component is repaired;

vi. The date and instrument reading of the recheck procedure after a leaking component is repaired;

vii. A record of the calibration of the monitoring instrument;

viii. The identification number of leaking components which cannot be repaired until process unit shutdown; and

ix. The total number of components inspected and the total number of components found leaking during that monitoring period.

c. All required reports as specified at 40 CFR 60.487a.

d. Records on at least an annual basis of the VOM and HAP emissions attributable to affected components, with supporting documentation and calculations.

2.9.10 Reporting Requirements

a. The Permittee shall fulfill all applicable notification and reporting requirements of the NSPS for the affected components.

b. The Permittee shall report any deviations from the requirements of this permit for the affected components in the quarterly compliance report submitted to the Illinois EPA. These reports shall include the information specified by Condition 3.4.

2.9.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to repair and replace affected components without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102.

## 2.10 Cooling Tower

### 2.10.1 Description

A non-contact cooling tower is used to support the heat exchangers used to cool process streams and to condense surplus steam being returned to the boiler.

### 2.10.2 List of Emission Units and Pollution Control Measures

| Process | Description | Control Measure |
|---|---|---|
| Cooling Tower | Non-Contact Cooling Tower | Drift Eliminator |

### 2.10.3 Applicable Regulations

a. The cooling tower is subject to 35 IAC 212.321, which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).

### 2.10.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the requirements in 35 IAC 219.986(d), which requires measures to address leaks in heat exchangers that would let VOM enter the cooling water, not applying to the cooling tower. This is because this cooling tower qualifies for the exemption from this emission standard at 35 IAC 219.980(c). This exemption provides that this standard does not apply to an emission unit to which it would otherwise apply if the VOM emissions of the unit are less than or equal to 2.5 tons per calendar year and the total VOM emissions of the unit and other units that rely on this exemption to not comply with 35 IAC 219.986 to not exceed 5.0 tons per calendar year.

### 2.10.5 Operational and Production Limits and Work Practices

a. The cooling tower shall be equipped with drift eliminators that are designed to limit drift loss to 0.001 percent or less.

b. The total dissolved solids (TDS) content of water circulated in the cooling tower shall not exceed 2500 ppm, annual average.

c. i. Only non-VOM additives shall be used in the cooling tower.

ii. Process water or wastewater shall not be introduced into cooling water, other than through unintentional leaks, which shall promptly be repaired.

2.10.6 Emission Limitations

Emissions of PM from the cooling tower shall not exceed 0.23 lbs/hour and 0.99 tons per year.

Note - This limit is based on information in the application indicating that the drift eliminators are designed to have a drift loss of 0.001 percent or less, operating at an overall design flow rate 1,080,000 gallons/hr, total dissolved solids (TDS) concentrations of no more than 2500 ppm, and continuous operation of the cooling tower.

2.10.7 Testing Requirements

None

2.10.8 Sampling and Analysis Requirement

a. The Permittee shall sample and analyze the water circulated in the cooling tower on at least a quarterly basis for the TDS concentration, taking either grab samples or a daily composite sample of the water.

b. The Permittee shall keep records for this sampling and analysis activity, including documentation for sampling and analysis as well as the resulting data that is collected.

2.10.9 Recordkeeping Requirements

The Permittee shall maintain records of the following information for the cooling tower:

a. A file containing:

i. The manufacturer’s specification or design data for the cooling tower, including water circulation rate (gallons/hour) and design loss rate of the drift eliminators (percent), with supporting documentation.

ii. The maximum PM emissions from the cooling tower (tons/year), based on maximum operating rate of the cooling tower and factors that with greatest loss of PM as emissions, with supporting calculations.

b. Records for the actions used to routinely verify the solids content of the water circulating in the cooling tower, such as sampling and analysis in accordance with the National Pollutant Discharge Elimination System (NPDES) permit, periodic grab sampling and analysis, conductivity measurements, etc., including:

i. If routine verification will not be conducted pursuant to the NPDES permit, a written description of the procedures, with explanation of how they act to address compliance.

ii. Records for implementation of the procedure, including measured value(s) of relevant parameter(s).

c. Records for the amount of water circulated in the cooling tower, gallons/month, with supporting calculations.

d. The following logs for the affected units:

i. Operating log(s), in accordance with Condition 3.3(c).

ii. Inspection, maintenance and repair log(s) in accordance with Condition 3.3(d).

e. Records for the PM emissions from the cooling tower (ton/month and ton/year), with supporting documentation and calculations.

2.10.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the cooling tower as follows. These notifications shall include the information specified by Condition 3.4.

i. If the cooling tower is damaged so there is a deviation from an applicable requirements that is not repaired or otherwise corrected within 24 hours, the Permittee shall then immediately notify the Illinois EPA.

ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

## 2.11 Roadways and Other Sources of Fugitive Dust

### 2.11.1 Description

Fugitive dust/particulate matter emissions are generated by vehicle traffic on roadways and parking lots at the plant.

### 2.11.2 List of Emission Units and Pollution Control Measures

| Operation | Description | Control Measure |
|---|---|---|
| Fugitive Dust | Haul Plant Roads and Vehicle Traffic | Paving and Sweeping |
| | Internal Service Roads and Parking Lots | Paving and Dust Suppressants |

### 2.11.3 Applicable Regulations

a. The "affected operations" for the purpose of these unit-specific conditions are the operations described in Condition 2.11.1 and 2.11.2.

b. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source unless the wind speed is greater than 25 miles per hour, pursuant to 35 IAC 212.301 and 212.314 [See also Condition 1.3(a)].

c. The affected operations are subject to the requirements of 35 IAC 212.307 through 212.309 because the facility is located in Centerville Township, pursuant to 35 IAC 212.302, which require that:

i. Traffic Areas: All normal traffic pattern access areas surrounding storage piles specified above and all normal traffic pattern roads and parking facilities which are located on manufacturing facility shall be paved . All paved areas shall be treated with water, oils or chemical dust suppressants and cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required [35 IAC 212.306].

ii. Materials Collected by Pollution Control Equipment: All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, palletizing, screw conveying or other equivalent methods [35 IAC 212.307].

iii. Spraying or Choke-Feeding Required: Crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with an operating program required [35 IAC 212.308].

iv. Operating Program: The affected operations shall be operated under the provision of an operating program, consistent with the requirements set forth in 35 IAC 212.310 and 212.312 and prepared by the Permittee and submitted to Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309].

2.11.4 Non-Applicability of Regulations of Concern

a. The affected operations are not subject to the requirements of 35 IAC 212.321 ("the process weight rate" rule) because of the disperse nature of these emissions units [35 IAC 212.323].

2.11.5 Operational and Production Limits and Work Practices

a. The Permittee shall follow good air pollution control practices to minimize nuisance fugitive dust from plant roads, parking areas, and other open areas of the plant. These practices shall provide for pavement on all traveled entrances and exits to the plant and treatment (sweeping, application of water, use of dust suppressant, etc., when necessary) of paved roads and areas that are routinely subject to vehicle traffic.

b. i. The Permittee shall carry out control measures for fugitive dust in accordance with a written control program maintained by the Permittee. This program shall set forth the measures being implemented to demonstrate compliance with Conditions 2.11.3, 2.11.5(a) and 2.11.6, to control fugitive dust at each area of the plant with the potential to generate significant quantities of fugitive dust. This program shall include: (i) The name and address of the source; (ii) The name and address of the owner or operator responsible for execution of the operating program; (iii) A map or diagram showing the location of all fugitive emission units controlled, including the location, identification, length, and width of roadways, and volume and nature of expected traffic or other activity; (iv) A detailed description of the best management

practices utilized to achieve compliance, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized; (v) estimated dust emissions control technique (e.g., water spray surfactant spray, water flushing, or sweeping); (vi) triggers for additional control, e.g., observation of extended dust plumes following passage of vehicles.

ii. The Permittee shall submit a copy of the Program to the Illinois EPA for its review and comments within 30 days from the initial production of ethanol.

iii. The Permittee shall submit a copy of a revised fugitive dust control program to the Illinois EPA for review within 90 days of a request from the Illinois EPA for a revision to the program to address observed deficiencies in the control program.

2.11.6 Emission Limitations

Emissions of PM from the affected operations shall not exceed 0.68 tons per year, as PM, 0.14 tons per year as $PM_{10}$, and 0.03 tons per year as $PM_{2.5}$, as determined by use of appropriate USEPA methodology for estimating emissions of fugitive dust.

2.11.7 Testing Requirements

None

2.11.8 Operational Measurements

a. The Permittee shall conduct measurements of the silt loading on the affected operations, as follows:

i. Sampling and analysis of the silt loading shall be conducted using the "Procedures for Sampling Surface/Bulk Dust Loading," Appendix C.1 in Compilation of Air Pollutant Emission Factors, USEPA, AP-42. A series of samples shall be taken to determine the average silt loading and address the change in silt loadings as related to the amount and nature of vehicle traffic.

ii. Measurements shall be performed by the following dates:

A. Measurements shall first be completed within 45 days of the initial emission testing of

the affected feed dryer (RTO) required by Condition 2.6.7.

B. Measurements shall be repeated within 30 days in the event of significant changes involving affected units that would act to increase silt loading unless data that is representative of the current circumstances of the affected units has been collected, including changes in the amount or type of traffic on affected units, changes in the standard operating practices for affected units, such as application of salt or traction material during cold weather, and changes in the operating program for affected units.

C. Upon written request by the Illinois EPA, the Permittee shall conduct measurements, as specified in the request, which shall be completed within 75 days of the Illinois EPA's request.

iii. The Permittee shall submit test plans, test notifications and test reports for these measurements as specified by Condition 3.1, provided, however, that once a test plan has been accepted by the Illinois EPA, a new test plan need not be submitted if the accepted plan will be followed or a new test plan is requested by the Illinois EPA.

2.11.9 Monitoring Requirement

None

2.11.10 Recordkeeping Requirements

The Permittee shall maintain the following records with respect to the affected operations:

a. A file containing:

i. The Permittee's assumptions, with supporting explanation, for the typical and maximum quantity and nature of vehicle traffic at the plant, including truck traffic related to the receipt of raw materials and loadout of products and employee and other vehicle traffic involved in the routine operation of the plant.

ii. For the current fugitive dust control program (as addressed by Conditions 2.11.3(c)(iv) and 2.11.5(b)), assessments of the estimated effectiveness of the

control measures in reducing PM, $PM_{10}$ and $PM_{2.5}$ emissions from the different types of roadways, with supporting calculations and analysis.

iii. The maximum PM emissions from the affected operations (tons/year, as PM, $PM_{10}$ and $PM_{2.5}$), with supporting calculations, based on the maximum vehicle traffic at the plant (as recorded above), the silt loading on the different classes of roadways at the plant (as measured pursuant to Condition 2.11.8), and the effectiveness of the current fugitive dust control program (as addressed in Condition 2.11.10(a)(ii).

b. Records documenting implementation of the fugitive dust control program, including:

i. The name and address of the source.

ii. The name and address of the owner and/or operator of the source.

iii. A map or diagram showing the location of all emission units controlled, including the location, identification, length, and width of roadways.

iv. For each dust control treatment of a roadway: the name and location of the roadway controlled, the type of treatment, identification of each truck used, application rate of water or other dust suppressant material, and total quantity of material applied.

v. A log recording incidents when control measures were not carried out as scheduled or were not fully implemented and incidents when additional control measures were carried out, with description of each such incident and explanation. This log shall address any adjustments to the scheduling of control measures made by the Permittee due to weather conditions that either acted to reduce or increase the level of potential dust, such as precipitation or extended periods of dry weather.

c. Records on at least an annual basis of the PM, $PM_{10}$, $PM_{2.5}$ emissions from the affected operations, with supporting documentation and calculations.

2.11.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for affected operations as follows. These notifications shall include the information specified by Condition 3.4.

i. If there is an exceedance of Condition 2.11.3(b) that lasts longer than one hour, the Permittee shall immediately notify the Illinois EPA.

ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report.

b. With the Quarterly Emission Report, the Permittee shall submit the following information to the Illinois EPA:

Dates when control measures otherwise required by the dust control program were not carried out with explanation.

## Section 3: General Conditions

3.1 Emission Testing

a. i. Within 180 days of initial startup of feed dryer, emissions of selected units as specified in the following table shall be measured during maximum representative operating conditions, i.e., those conditions that reflect the highest relevant emissions reasonably expected to be vented to the control device:

| Emission Unit/Process | Emissions | | | | | | Efficiency | |
|---|---|---|---|---|---|---|---|---|
| | PM | VOM | $NO_x$ | CO | $SO_2$ | HAP | VOM | CO |
| Grain Receiving and Storage (Two Filters) | X | | | | | | | |
| Grain Cleaning (Two Filters/baghouses) | X | | | | | | | |
| Grain Milling (Two Filters/Baghouses) | X | | | | | | | |
| Fermentation (Scrubber) | X | X | | | | X | X | |
| Distillation Scrubber | X | X | | | | X | X | |
| Feed Dryer/Cooler (RTO) | X* | X | X | X | X | X | X | X |
| DDGS Loading (Filters/Baghouses) | X | | | | | | | |
| DDGS Storage Reclaim (Filters/Baghouses) | X | | | | | | | |
| Boilers | | | X | X | | | | |

* PM tests shall include measurements of condensable particulate matter, as collected in the back half of the Method 5 sampling train or by separate measurements using USEPA Method 202 (40 CFR Part 51, Appendix M).

ii. Within 60 months of the initial testing required by Condition 3.1(a)(i) and every 60 months thereafter, subsequent testing shall be conducted according to Condition 3.1(a)(i).

iii. Notwithstanding Condition 3.1(a)(ii), for the Fermentation (scrubber), Feed Dryer/Cooler (RTO) and Distillation Scrubber, if the previous emissions test for that unit shows a compliance margin of less than 5.0 percent of the applicable permit limit, subsequent testing shall be conducted within 36 months of initial testing conducted in accordance with Condition 3.1(a)(i).

iv. In addition to the emission testing required above, the Permittee shall perform emission tests as requested by the Illinois EPA for an emission unit within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the USEPA or Illinois EPA. Refer to 40 CFR 60, Appendix A, for USEPA test methods.

| | |
|---|---|
| Sample and Velocity Traverses for Stationary Sources | USEPA Method 1 |
| Sample and Velocity Traverses for Stationary Sources with Small Stacks or Ducts | USEPA Method 1A |
| Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) | USEPA Method 2 |
| Direct Measurement of Gas Volume through Pipes and Small Ducts | USEPA Method 2A |
| Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube) | USEPA Method 2C |
| Measurement of Gas Volume Flow Rates in Small Pipes and Ducts | USEPA Method 2D |
| Gas Analysis for the Determination of Dry Molecular Weight | USEPA Method 3 |
| Determination of Moisture Content in Stack Gases | USEPA Method 4 |
| Determination of Particulate Matter from Stationary Sources | USEPA Method 5 and 202 |
| Determination of Opacity | |
| Determination of VOM/HAP Concentration | USEPA Method 2<br>USEPA Method 18*/** |
| Determination Of $PM_{10}$ AND $PM_{2.5}$ emission from stationary sources | USEPA Method 201a and |
| Determination of Sulfur Dioxide emission from stationary sources | USEPA Methods 6, 6a, 6b, or 6c |
| Determination of nitrogen oxide emissions from stationary sources | USEPA Method 7,7E, or 19 |
| Visual Determination of the opacity of Emissions from Stationary Sources | USEPA Method 9 |
| Method 10 Determination of carbon monoxide emissions from stationary sources | USEPA Method 10 |
| Determination of Control Device Destruction Efficiency | USEPA Method 25 |
| Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer | USEPA Method 25A* |

* Testing shall also be conducted in accordance with industry-specific guidance from USEPA on testing VOM and HAP emissions at ethanol plants.

** USEPA Method 320 may also be used.

c. i. A written test plan shall be submitted to the Compliance Section of the Bureau of Air for review at least 45 days prior to the scheduled date of testing. This plan shall describe the specific procedures for testing, including as a minimum:

A. The person(s) who will be performing sampling and analysis and their experience with similar tests.

B. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and any changes in the means or manner by which the operating parameters for the emission unit and any control equipment will be determined.

C. The specific determinations of emissions and operation that is intended to be made, including sampling and monitoring locations.

D. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.

ii. As part of the approval of a test plan, the Permittee may request and the Illinois EPA may approve a program to evaluate alternative levels of operating parameters for a control device, leading to testing at new values for operating parameters. In such case, the provisions of the approved test plan shall supersede the particular provisions of this permit with respect to the required level of operating parameters for the affected unit(s).

d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

e. Copies of the Final Reports for these tests shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized but no later than 45 days after completion of sampling. The Final Report shall include as a minimum:

i. A summary of results

ii. General information

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule

iv. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration

f. Copies of emission test reports shall be retained for at least five years after the date that an emission test is superseded by a more recent test.

3.2 Operation or Maintenance Procedures

Where this permit requires the Permittee to operate or maintain emission units in accordance with written procedures, such procedures may incorporate procedures provided by the equipment supplier.

3.3 Inspection, Maintenance and Repair Logs

Inspection, maintenance and repair logs shall include the following information:

a. Identification of equipment, with date, time, responsible party and description of activity.

b. Description of any corrective actions or preventative measures taken as result of inspection.

3.4 Reporting of Deviations

a. Reports of deviations shall include the following information:

i. Identify the deviation, with date, time, duration and description.

ii. Describe the effect of the deviation on compliance, with an estimate of the excess emissions that accompanied the deviation, if any.

iii. Describe the probable cause of the deviation and any corrective actions or preventive measures taken.

b. Quarterly compliance report shall be submitted no later than 45 days after the preceding calendar quarter. This report shall also provide a listing of all deviations for which immediate or 30-day reporting was required, but need not include copies of the previously submitted information.

c. If there are no deviations during the calendar quarter, the Permittee shall still submit a compliance report, which report shall state that no deviations occurred during the reporting period.

If you have any questions on this permit, please call Jocelyn Stakely at 217/785-1705.

William D. Marr
Manager, Permit Section
Bureau of Air

WDM:JRS:tan

ATTACHMENT A

Listing of Identified Emission Units and Process Equipment

| Operation | Emission Unit/Process Equipment | Emission Control Equipment |
|---|---|---|
| Boilers | Two Natural Gas Fired Boilers (92.4 Million Btu/Hr, Each) | Ultra Low-$NO_x$ burners |
| Engine | Diesel Engine Generator (1,000 kW) | ---- |
| Grain Receiving/Handling and Cleaning | Truck Receiving and Conveying System | Filters (Baghouses) (SV001A and SV001B) |
| | Rail Receiving and Conveying system | |
| | Elevators | |
| | Storage Silos | Enclosed Building |
| | Cleaner and Reclaim Elevator | Filters (Baghouses) (SV002A and SV002B) |
| | Grain Surge Bin | |
| | Hammermill Feed | |
| Grain Milling | Hammermills | Filters (Baghouses)(SV003A and SV003B) |
| | Hammermill Discharge Conveyors | |
| Mash Preparation | Process Condensate Tanks | Distillation Process Scrubber SV005 |
| | Slurry Tank | |
| | Liquefaction Tank | |
| | Yeast Tank | |
| | Misc. Chemical Tanks | ---- |
| Fermentation | Lab Fume Hood | Fermentation $CO_2$ Scrubber (SV004) |
| | Fermenters (1-4) | |
| | Beer Well | |
| Distillation | Beer Column | ---- |
| | Stripper Column | ---- |
| | Rectifier Column | ---- |
| | Molecular Sieve | ---- |
| | Mash Screen | ---- |
| Solid Separation and Evaporation | Evaporators | ---- |
| | Centrifuges | ---- |
| | Whole Stillage Tank | Distillation Process Scrubber SV005 |
| | Syrup Tank | |
| | Thin Stillage Tank | |
| Feed Drying and Cooling | Dryer/Cyclones | Regenerative Thermal Oxidizer |
| | Feed Cooler | |
| | Conveyors | ---- |
| Feed Storage and Loadout | DDGS Storage | Filter (Baghouse) SV008A |
| | Feed Conveyors | Filters (Baghouses)SV001C and SV001D |
| | DDGS Truck Loadout | Filter (Baghouse) SV008B |
| | DDGS Rail Loadout | ---- |
| | Wet Cake Storage and Loadout | ---- |

| Operation | Emission Unit/Process Equipment | Emission Control Equipment |
|---|---|---|
| Storage Tanks | Two Ethanol Day Tanks Nom. Capacity 169,000 Gallons | Internal Floating Roof with Primary and Secondary Seals |
| | Two Product Storage Tanks Nom. Capacity 571,000 Gallons | Internal Floating Roof with Primary and Secondary Seals |
| | Denaturant Tank Nom. Capacity 88,000 Gallons | Internal Floating Roof with Primary and Secondary Seals |
| Ethanol Loadout | Truck Loadout | Flare |
| | Rail Loadout | Dedicated Tankers |
| | Barge Loadout | |
| Process Components (Valves, Flanges, Pumps, Seals, etc.) | Processing of Organic Material through the Plant's Piping System | Leak Detection and Repair Program |
| Cooling Tower | Non-Contact Cooling Tower | Drift Eliminator |
| Fugitive Dust | Haul Roads and Vehicle Traffic | Paving and Sweeping |
| | Internal Service Roads and Parking Lots/Truck Staging Area and Vehicle Traffic | Paving and Dust Suppressants |

TABLE I

Annual Emission Limitations (Tons/Year)

| Emission Unit(s) | $NO_x$ | CO | VOM | PM/$PM_{10}$ | | $PM_{2.5}$ | $SO_2$ | Acet. | Other HAP | Total HAP | Ind. HAP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boilers | 17.04 | 21.02 | 4.54 | 2.73 | 2.73 | 2.73 | 0.57 | 0.001 | 1.05 | 1.05 | 1.00 |
| Emergency Generator | 0.58 | 0.10 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.001 | 0.001 | 0.001 | 0.001 |
| Grain Receiving and Handling | | | | 0.01 | 0.01 | 0.01 | | | | | |
| Grain Cleaning | | | | 0.10 | 0.10 | 0.02 | | | | | |
| Grain Milling | | | | 0.65 | 0.65 | 0.11 | | | | | |
| Fugitive Grain Receiving/Handling | | | | 0.12 | 0.03 | 0.005 | | | | | |
| Fermentation (Scrubber) | | | 20.89 | 0.44 | 0.12 | 0.06 | | 5.9 | 0.63 | 6.53 | 0.21 |
| Mash Preparation, Solid Separation and Evaporation | | | 1.27 | 0.44 | 0.12 | 0.06 | | 0.03 | 0.06 | 0.08 | 0.03 |
| Feed Dryer/Cooler/RTO | 32.60 | 30.00 | 20.15 | 21.11 | 21.11 | 21.11 | 0.30 | 1.22 | 4.36 | 5.58 | 2.13 |
| Grain Conveyance | | | | 0.03 | 0.03 | 0.01 | | | | | |
| DDGS Loadout | | | | 0.03 | 0.03 | 0.01 | | | | | |
| DDGS Fugitives | | | | 0.17 | 0.03 | 0.01 | | | | | |
| Wet Cake Transfer & Loadout | | | 5.53 | 0.01 | 0.005 | 0.001 | | 0.001 | 0.001 | 0.002 | 0.001 |
| Ethanol & Denaturant Tanks | | | 1.58 | | | | | 0.001 | 0.02 | 0.02 | 0.01 |
| Ethanol Loadout Barge/Rail | | | 13.81 | | | | | 0.003 | 5.65 | 5.65 | 2.07 |
| Ethanol Loadout Truck (Flare) | 2.14 | 3.57 | | 0.0018 | 0.0018 | 0.0018 | 0.0001 | | | | |
| Component Leaks | | | 5.34 | | | | | 0.002 | 0.003 | 0.003 | 0.002 |
| Cooling Tower | | | | 0.99 | 0.99 | 0.99 | | | | | |
| Plant Roads/Parking Areas | | | | 0.68 | 0.14 | 0.03 | | | | | |
| **Totals** | **52.36** | **54.69** | **73.13** | **27.53** | **26.10** | **25.17** | **0.89** | **7.16** | **11.78** | **18.92** | **5.46** |

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

# STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

    a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

    b. to have access to and copy any records required to be kept under the terms and conditions of this permit,

    c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

    d. to obtain and remove samples of any discharge or emission of pollutants, and

    e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

    a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

    b. does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

    c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

    d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

b. upon finding that any standard or special conditions have been violated, or

c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.