MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

EFFECTIVE DATE: February 4, 2014

ISSUED TO

GREEN PLAINS HOLDINGS II LLC

State Registration Number (SRN): N7383

LOCATED AT

11440 Cemetery Road, Riga, Michigan 49228

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-N7383-2014

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

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Scott Miller, Jackson District Supervisor

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A. GENERAL CONDITIONS

1. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

2. The permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following: **(R 336.1301(1))**
   a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
   b. A limit specified by an applicable federal new source performance standard.

   The grading of visible emissions shall be determined in accordance with Rule 303.

3. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
   a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
   b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

4. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**

5. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) in a manner consistent with the CAA. **(R 336.1912)**

6. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. [2] **(R 336.1201(1))**

7. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. [2] **(R 336.1201(8), Section 5510 of Act 451)**

8. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. [2] **(R 336.1219)**

9. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. [2] **(R 336.1201(4))**

Footnotes:

[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUWDGS	Wet Distiller's Grains and Solubles (WDGS) storage.	03/01/07	FGFACILITY
EUGENSET1	1000 kilowatt diesel fired emergency generator.	03/01/07	FGFACILITY
EUFIREPUMP	360 horsepower diesel fired emergency firewater pump.	03/01/07	FGFACILITY
EUCOOLINGTWR	1,980,000 gallon per hour eight cell cooling tower equipped with drift eliminators.	03/01/07	FGFACILITY
EUTRUCKTRAFFIC	Truck traffic for delivery of grain and denaturant to the facility and transport of DDGS, WDGS, and denatured ethanol from the facility.	03/01/07	FGFACILITY
EUCORNPIT1	Corn dump pit/auger #1, controlled by grain receiving baghouse #1 (CE001)	03/01/07	FGFACILITY FGCORNREC1 FGCORNHAND
EUCONVEYOR1	Corn conveyor #1, controlled by grain receiving baghouse #1 (CE001)	03/01/07	FGFACILITY FGCORNREC1 FGCORNHAND
EUELEVATOR1	Corn elevator #1, controlled by grain receiving baghouse #1 (CE001)	03/01/07	FGFACILITY FGCORNREC1 FGCORNHAND
EUCORNPIT2	Corn dump pit/auger #2, controlled by grain receiving baghouse #2 (CE010)	03/01/07	FGFACILITY FGCORNREC2 FGCORNHAND
EUCONVEYOR2	Corn conveyor #2, controlled by grain receiving baghouse #2 (CE010)	03/01/07	FGFACILITY FGCORNREC2 FGCORNHAND
EUCORNELEV	Corn elevator #2, controlled by grain receiving baghouse #2 (CE010)	03/01/07	FGFACILITY FGCORNREC2 FGCORNHAND
EUCONVEYOR3	Corn conveyor #3, controlled by corn bin #1 baghouse (CE011)	03/01/07	FGFACILITY FGCORNBIN1 FGCORNHAND
EUCORNBIN1	Corn bin #1, controlled by corn bin #1 baghouse (CE011)	03/01/07	FGFACILITY FGCORNBIN1 FGCORNHAND

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCONVEYOR4	Corn conveyor #4, controlled by corn bin #2 baghouse (CE012)	03/01/07	FGFACILITY FGCORNBIN2 FGCORNHAND
EUCORNBIN2	Corn bin #2, controlled by corn bin #2 baghouse (CE012)	03/01/07	FGFACILITY FGCORNBIN2 FGCORNHAND
EUELEVATOR2	Elevator, controlled by the surge bin baghouse (CE013)	03/01/07	FGFACILITY FGSURGEBIN FGCORNHAND
EUSCALPER	Scalper, controlled by the surge bin baghouse (CE013)	03/01/07	FGFACILITY FGSURGEBIN FGCORNHAND
EUSURGEBIN	Surge bin, controlled by the surge bin baghouse (CE013)	03/01/07	FGFACILITY FGSURGEBIN FGCORNHAND
EUHAMMERMILL1	Hammermill #1, controlled by hammermilling baghouse #1 (CE003)	03/01/07	FGFACILITY FGCORNMILL
EUHAMMERMILL2	Hammermill #2, controlled by hammermilling baghouse #2 (CE004)	03/01/07	FGFACILITY FGCORNMILL
EUYEASTTANK	Yeast tank, controlled by the fermentation scrubber (CE016)	03/01/07	FGFACILITY FGFERM
EUFERM1	Fermenter #1, controlled by the fermentation scrubber (CE016)	03/01/07	FGFACILITY FGFERM
EUFERM2	Fermenter #2, controlled by the fermentation scrubber (CE016)	03/01/07	FGFACILITY FGFERM
EUFERM3	Fermenter #3, controlled by the fermentation scrubber (CE016)	03/01/07	FGFACILITY FGFERM
EUFERM4	Fermenter #4, controlled by the fermentation scrubber (CE016)	03/01/07	FGFACILITY FGFERM
EUBEERWELL	Beer well, controlled by the fermentation scrubber (CE016)	03/01/07	FGFACILITY FGFERM
EULIQTANK	Liquefaction tank, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUBEERSTRIP	Beer stripper, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUSIDESTRIP	Side stripper, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EURECTIFIER	Rectifier, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUMOLSIEVE	Molecular sieve, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUEVAPORATOR	Evaporator, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUCENTRIFUGE1	Centrifuge #1, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUCENTRIFUGE2	Centrifuge #2, controlled by the vent gas scrubber (CE005)	03/01/07	FGFACILITY FGLIQUIDHAND
EUCENTRIFUGE3	Centrifuge #3, controlled by the vent gas scrubber (CE005).	03/01/07	FGFACILITY FGLIQUIDHAND
EUCENTRIFUGE4	Centrifuge #4, controlled by the vent gas scrubber (CE005).	03/01/07	FGFACILITY FGLIQUIDHAND
EUCENTRIFUGE5	Centrifuge #5, controlled by the vent gas scrubber (CE005).	11/05/12	FGFACILITY FGLIQUIDHAND

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCENTRATE	Centrate tank, controlled by the vent gas scrubber (CE005).	03/01/07	FGFACILITY FGLIQUIDHAND
EUDDGSDRYER	90,000,000 BTU/hr natural gas fired Dried Distiller's Grains and Solubles (DDGS) dryer, equipped with low NOx burners and controlled by the multiclone (CE006) and valveless regenerative thermal oxidizer (CE007).	03/01/07	FGFACILITY FGDDGSDRY
EUCOOLER	DDGS cooler, controlled by the multiclone (CE006) and valveless regenerative thermal oxidizer (CE007).	03/01/07	FGFACILITY FGDDGSDRY
EUVRTO	Valveless regenerative thermal oxidizer.	03/01/07	FGFACILITY FGDDGSDRY
EUDDGSDMPIT	DDGS dump pit/auger, controlled by the DDGS elevator baghouse (CE014).	03/01/07	FGFACILITY FGDDGSELEV FGDDGSHAND
EUDDGSELEV	DDGS elevator, controlled by the DDGS elevator baghouse (CE014).	03/01/07	FGFACILITY FGDDGSELEV FGDDGSHAND
EUDDGSCONV1	DDGS conveyor #1, controlled by the DDGS handling baghouse (CE008).	03/01/07	FGFACILITY FGDDGSLOAD FGDDGSHAND
EUDDGSLOADSP	DDGS load spout, controlled by the DDGS handling baghouse (CE008).	03/01/07	FGFACILITY FGDDGSLOAD FGDDGSHAND
EUTRUCKLOAD	Ethanol truck load-out, controlled by the ethanol load out flare (CE009).	03/01/07	FGFACILITY FGETHLOAD
EURAILLOAD	Ethanol railcar load-out, controlled by the ethanol load out flare (CE009).	03/01/07	FGFACILITY FGETHLOAD
EUBOILER1	92,050,000 BTU/hr Boiler #1, natural gas fired equipped with low NOx burners.	03/01/07	FGFACILITY FGBOILERS
EUBOILER2	92,050,000 BTU/hr Boiler #2, natural gas fired equipped with low NOx burners.	03/01/07	FGFACILITY FGBOILERS
EUNATGASTANK	63,500 gallon denaturant storage tank with an internal floating roof.	03/01/07	FGFACILITY FGNSPSTANKS
EUDENATTANK1	620,000 gallon denatured ethanol storage tank #1 with an internal floating roof.	03/01/07	FGFACILITY FGNSPSTANKS
EUDENATTANK2	620,000 gallon denatured ethanol storage tank #2 with an internal floating roof.	03/01/07	FGFACILITY FGNSPSTANKS
EU200TANK1	175,000 gallon 200 proof ethanol storage tank #1 with an internal floating roof.	03/01/07	FGFACILITY FGNSPSTANKS
EU200TANK2	175,000 gallon 200 proof ethanol storage tank #2 with an internal floating roof.	03/01/07	FGFACILITY FGNSPSTANKS

EUWDGS
EMISSION UNIT CONDITIONS

DESCRIPTION

Wet Distiller's Grains and Solubles (WDGS) storage.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall limit Wet Distiller's Grains and Solubles (WDGS) storage capacity to not more than three days' worth of production.[1] **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, a record of the date, time, and amount of each WDGS shipment from the facility. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[1] **(R 336.1901)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EUGENSET1
EMISSION UNIT CONDITIONS

DESCRIPTION

1000 kilowatt diesel fired emergency generator

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUGENSET1 for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205(1), R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**
NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the hours of operation for EUGENSET1, as required by SC III.1. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV006	14[2]	10[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EUFIREPUMP
EMISSION UNIT CONDITIONS

DESCRIPTION

360 horsepower diesel fired emergency firewater pump

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUFIREPUMP for more than four hours per day and 500 hours per 12-month rolling time period as determined at the end of each calendar month, except as allowed by SC III.2.[2] **(R 336.1205(1), R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)))**

2. The permittee may operate EUFIREPUMP more than four hours per day only if the following emission units are not operated simultaneously with EUFIREPUMP: EUBOILER1, EUBOILER2, EUDDGSDRYER, EUCOOLER, EUVRTO, and EUHAMMERMILL2.[2] **(R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUFIREPUMP with a non-resettable hour meter.[2] **(R 336.1205(1), R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, records of the date and hours of operation for each use of EUFIREPUMP. For those times that EUFIREPUMP is operated more than four hours per day, the permittee shall also document that the emission units listed in SC III.2 are not operated simultaneously with EUFIREPUMP. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the hours of operation for EUFIREPUMP, as required by SC III.1 and SC III.2. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV017	6[2]	7[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EUCOOLINGTWR
EMISSION UNIT CONDITIONS

DESCRIPTION

1,980,000 gallon per hour eight cell cooling tower equipped with drift eliminators.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUCOOLINGTWR unless it is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of EUCOOLINGTWR includes maintaining it, including the drift eliminators, according to the Malfunction Abatement Plan (MAP).[2] **(R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EUTRUCKTRAFFIC
EMISSION UNIT CONDITIONS

DESCRIPTION

Truck traffic for delivery of grain and denaturant to the facility and transport of DDGS, WDGS, and denatured ethanol from the facility

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUTRUCKTRAFFIC unless a program for continuous fugitive emissions control for all plant roadways and all material handling operations has been implemented and is maintained.[2] **(R 336.1371, R 336.1372, Act 451 324.5524)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.	All EUs
FGCORNREC1	Corn dump pit/auger #1, corn conveyor #1, and corn elevator #1. Emissions are controlled by grain receiving baghouse #1 (CE001).	EUCORNPIT1, EUCONVEYOR1, EUELEVATOR1
FGCORNREC2	Corn dump pit/auger #2, corn conveyor #2, and corn elevator #2. Emissions are controlled by grain receiving baghouse #2 (CE010).	EUCORNPIT2, EUCONVEYOR2, EUCORNELEV
FGCORNBIN1	Corn bin #1 and corn conveyor #3. Emissions are controlled by corn bin #1 baghouse (CE011).	EUCONVEYOR3, EUCORNBIN1
FGCORNBIN2	Corn bin #2 and corn conveyor #4. Emissions are controlled by corn bin #2 baghouse (CE012).	EUCONVEYOR4, EUCORNBIN2
FGSURGEBIN	Elevator, scalper, and surge bin. Emissions are controlled by the surge bin baghouse (CE013).	EUELEVATOR2, EUSCALPER, EUSURGEBIN
FGCORNHAND	Corn receiving, storing, and handling operations. Emissions are controlled by baghouses CE001, CE010, CE011, CE012, and CE013.	EUCORNPIT1, EUCONVEYOR1, EUELEVATOR1, EUCORNPIT2, EUCONVEYOR2, EUCORNELEV, EUCONVEYOR3, EUCORNBIN1, EUCONVEYOR4, EUCORNBIN2, EUELEVATOR2, EUSCALPER, EUSURGEBIN
FGCORNMILL	Hammermill #1, controlled by hammermilling baghouse #1 (CE003), and Hammermill #2, controlled by hammermilling baghouse #2 (CE004).	EUHAMMERMILL1, EUHAMMERMILL2

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGLIQUIDHAND	Liquefaction tank, ethanol purification process, evaporator, centrifuges, and centrate tank. Emissions are controlled by the vent gas scrubber (CE005)	EULIQTANK, EUBEERSTRIP, EUSIDESTRIP, EURECTIFIER, EUMOLSIEVE, EUEVAPORATOR, EUCENTRIFUGE1, EUCENTRIFUGE2, EUCENTRIFUGE3, EUCENTRIFUGE4, EUCENTRIFUGE5, EUCENTRATE
FGFERM	Yeast tank, fermenters, and beer well. Emissions are controlled by the fermentation scrubber (CE016).	EUYEASTTANK, EUFERM1, EUFERM2, EUFERM3, EUFERM4, EUBEERWELL
FGDDGSDRY	DDGS dryer, cooler, and valveless regenerative thermal oxidizer. Emissions are controlled by multiclone (CE006) and the valveless regenerative thermal oxidizer (CE007).	EUDDGSDRYER, EUCOOLER, EUVRTO
FGDDGSELEV	DDGS dump pit/auger and DDGS elevator. Emissions are controlled by the DDGS elevator baghouse (CE014).	EUDDGSDMPIT, EUDDGSELEV
FGDDGSLOAD	DDGS conveyor #1 and DDGS load spout. Emissions are controlled by the DDGS handling baghouse (CE008).	EUDDGSCONV1, EUDDGSLOADSP
FGDDGSHAND	DDGS dump pit/auger, DDGS elevator, DDGS conveyor #1, and DDGS load spout. Emissions are controlled by the DDGS elevator baghouse (CE014) and the DDGS handling baghouse (CE008)	EUDDGSDMPIT, EUDDGSELEV, EUDDGSCONV1, EUDDGSLOADSP
FGETHLOAD	Ethanol truck and rail load-out. Emissions are controlled by the ethanol load out flare (CE009).	EUTRUCKLOAD, EURAILLOAD
FGBOILERS	Two 92,050,000 BTU/hr natural gas fired boilers equipped with low NOx burners.	EUBOILER1, EUBOILER2
FGNSPSTANKS	All storage tanks subject to NSPS 40 CFR 60 Subpart Kb. Tanks are equipped with internal floating roofs.	EUNATGASTANK, EUNATGASTANK2, EUDENATTANK1, EUDENATTANK2, EU200TANK1, EU200TANK2,
FGNSPSVV	All pumps, valves, and pressure relief devices in light liquid and heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open ended valve or line and all associated closed vent systems and control devices. Subject to 40 CFR 60 Subpart VV.	NA

FGFACILITY
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

Emission Units: All emission units at the facility

POLLUTION CONTROL EQUIPMENT

Baghouses, scrubbers, valveless regenerative thermal oxidizer, multiclone

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	89 tpy[2]	12-month rolling time period[a]	FGFACILITY	SC VI.2	**R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
2. VOC	76 tpy[2]	12-month rolling time period[a]	FGFACILITY	SC VI.3	**R 336.1205(1)**
3. CO	87 tpy[2]	12-month rolling time period[a]	FGFACILITY	SC VI.4	**R 336.1205(1), R 336.2804, 40 CFR 52.21(d)**
4. PM	57 tpy[2]	12-month rolling time period[a]	FGFACILITY	SC VI.3	**R 336.1205(1)**
5. PM10	46 tpy[2]	12-month rolling time period[a]	FGFACILITY	SC VI.2	**R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
6. HAPs	8.9 tpy of any individual HAP	12-month rolling time period[a]	FGFACILITY	SC VI.5	**R 336.1205(1)**
7. HAPs	24 tpy of aggregate of HAPs	12-month rolling time period[a]	FGFACILITY	SC VI.5	**R 336.1205(1)**

[a] 12-month rolling time period as determined at the end of each calendar month.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate any equipment in FGFACILITY unless the malfunction abatement plan (MAP), revised as necessary according to the procedures of Rule 911, is implemented and maintained. Any revisions to the MAP shall be submitted to the AQD District Supervisor for review and approval, as provided in Rule 911. The MAP shall include procedures for maintaining and operating equipment in a satisfactory manner, including procedures for minimizing emissions during malfunction events, and a program for corrective action for such events. If the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the MAP within 45 days after such an event occurs.[2] **(R 336.1205(1), R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall implement and maintain an odor management plan (OMP) for FGFACILITY. The permittee shall submit any revisions to the OMP to the AQD District Supervisor for review and approval. The OMP shall include procedures for maintaining and operating equipment in a manner that minimizes the release of odors to the outside air, and a program for corrective action for such events. If the OMP fails to address or inadequately addresses an event that results in an odor release to the outside air at the time the plan is initially developed, the owner or operator shall revise the OMP within 45 days after such an event occurs.[1] **(R 336.1901)**

3. The permittee shall not operate any equipment in FGFACILITY unless a program for continuous fugitive emissions control (FDP) for all plant roadways and all material handling operations, revised as necessary, is implemented and maintained. The permittee shall submit any revisions to the program to the AQD District Supervisor for review and approval. The program shall be considered approved if it is not acted on by the department within 90 days of submittal. The program shall include the following:[2] **(R 336.1371, R 336.1372, Act 451 324.5524)**

    a. The name and address of the facility and the owner or operator responsible for implementation of the program.
    b. A map or diagram of the facility showing the approximate locations of storage piles, conveyor loading operations, and all traffic patterns within the facility.
    c. The location of unloading and transporting operations with pollution control equipment.
    d. A detailed description of the best management practices utilized to achieve compliance with this section, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals, and dust suppressants utilized, and equivalent methods utilized.
    e. A test procedure, including record keeping, for testing all waste or recycled oils used for fugitive dust control for toxic contaminants.
    f. The frequency of application, application rates, and dilution rates if applicable, of dust suppressants by location of materials.
    g. The frequency of cleaning paved traffic pattern roads and parking facilities.

4. The permittee shall not operate FGFACILITY unless an emergency response plan, to be followed in the event of an emergency, has been submitted to the local fire department or county emergency response agency and is implemented and maintained. By October 1 each year, the permittee shall review this plan with the local fire department or emergency response agency and make any necessary updates.[1] **(R 336.1901)**

5. The permittee shall not operate FGFACILITY unless all plant roadways are paved.[2] **(R 336,1205(1), R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

See Appendix 9

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. A sign shall be present and conspicuously placed at the facility entrance stating the emergency phone numbers for the owner, primary operator, local and state police, local fire department, and ambulance service.[1] **(R 336.1901)**

2. The permittee shall install and maintain fencing, warning signs, and/or other measures as necessary to prevent unauthorized individuals from entering the plant property and buildings.[1] **(R 336.1225, R 336.1901)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx and PM10 emission calculations to demonstrate compliance with the limits in SC I.1 and I.5. The permittee shall keep all required records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period VOC and PM emission calculations to demonstrate compliance with the limits in SC I.2 and I.4. The permittee shall keep all required records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1))**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO emission calculations to demonstrate compliance with the limit in SC I.3. The permittee shall keep all required records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2804, 40 CFR 52.21 (d))**

5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period individual HAP and total HAP, including fugitive emissions, emission calculations to demonstrate compliance with the limits in SC I.6 and I.7. The permittee shall keep all required records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation for FGFACILITY to comply with the federal NSPS, 40 CFR 60.7. This notification shall be submitted to the AQD District Supervisor within the time frames specified in 40 CFR 60.7.[2] **(40 CFR 60.7)**

2. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGFACILITY.[2] **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGCORNHAND
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Corn receiving, storing, and handling operations.

Emission Units: EUCORNPIT1, EUCONVEYOR1, EUELEVATOR1, EUCORNPIT2, EUCONVEYOR2, EUCORNELEV, EUCONVEYOR3, EUCORNBIN1, EUCONVEYOR4, EUCORNBIN2, EUELEVATOR2, EUSCALPER, EUSURGEBIN

POLLUTION CONTROL EQUIPMENT

Baghouses CE001, CE010, CE011, CE012, and CE013

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM10	0.02 pph[2]	Test Protocol*	FGSURGEBIN	GC 4	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
2. PM10	0.55 pph[2]	Test Protocol*	FGCORNREC1	SC V.1	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
3. PM10	0.55 pph[2]	Test Protocol*	FGCORNREC2	GC 4	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
4. PM10	0.05 pph[2]	Test Protocol*	FGCORNBIN1	GC 4	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
5. PM10	0.05 pph[2]	Test Protocol*	FGCORNBIN2	GC 4	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**

* Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the equipment listed below unless the associated baghouse is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of each baghouse includes maintaining it according to the MAP.[2] **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

Process Equipment	Associated Baghouse
FGSURGEBIN	Surge Bin Baghouse (CE013)
FGCORNREC1	Grain Receiving Baghouse #1 (CE001)
FGCORNREC2	Grain Receiving Baghouse #2 (CE010)
FGCORNBIN1	Corn Bin #1 Baghouse (CE011)
FGCORNBIN2	Corn Bin #2 Baghouse (CE012)

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of the PM10 emission rate from FGCORNREC1 by testing at owner's expense, in accordance with Department requirements, will be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.1205(1), R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV001	38[2]	92[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. SV010	38[2]	92[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
3. SV011[a]	9[2]	98[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
4. SV012[a]	9[2]	98[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
5. SV013[a]	7[2]	75[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
[a] This stack is not required to be discharged unobstructed vertically upwards to the ambient air.			

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGCORNMILL
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Corn Hammermilling.

Emission Units: EUHAMMERMILL1, EUHAMMERMILL2

POLLUTION CONTROL EQUIPMENT

Baghouses CE003 and CE04

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM10	0.17 pph[2]	Test Protocol*	EUHAMMERMILL1	SC V.1	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
2. PM10	0.17 pph[2]	Test Protocol*	EUHAMMERMILL2	GC 4	**R 336.1205(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)**
* Test protocol shall specify averaging time.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUHAMMERMILL1 or EUHAMMERMILL2 unless hammermilling baghouse #1 (CE003) or hammermilling baghouse #2 (CE004) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of hammermilling baghouse #1 (CE003) and hammermilling baghouse #2 (CE004) includes maintaining them according to the MAP.[2] **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of the PM10 emission rate from EUHAMMERMILL1, by testing at owner's expense, in accordance with Department requirements, will be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.1205(1), R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV003	22[2]	30[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. SV004	22[2]	30[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGLIQUIDHAND
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Liquefaction tank, ethanol purification process, evaporator, centrifuges, and centrate tank.

Emission Units: EULIQTANK, EUBEERSTRIP, EUSIDESTRIP, EURECTIFIER, EUMOLSIEVE, EUEVAPORATOR, EUCENTRIFUGE1, EUCENTRIFUGE2, EUCENTRIFUGE3, EUCENTRIFUGE4, EUCENTRIFUGE5, EUCENTRATE

POLLUTION CONTROL EQUIPMENT

Vent Gas Scrubber (CE005)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.5 pph[2]	Test Protocol*	FGLIQUIDHAND	SC V.1 & VI.2	**R 336.1205(1), R 336.1702(a)**
2. Acetaldehyde	0.31 pph[2]	Test Protocol*	FGLIQUIDHAND	SC V.1 & VI.2	**R 336.1205(1), R 336.1225**
* Test protocol shall specify averaging time.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any equipment in FGLIQUIDHAND unless the Vent Gas Scrubber (CE005) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the scrubber liquid flow rate in the range identified in the MAP as constituting satisfactory operation.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

2. The permittee shall equip and maintain the Vent Gas Scrubber (CE005) with a liquid flow rate indicator capable of accurately indicating the scrubber liquid flow rate over the entire range of flow rates that constitutes satisfactory operation, as described in the MAP.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of the VOC and acetaldehyde emission rates from FGLIQUIDHAND, by testing at owner's expense, in accordance with Department requirements, will be required. Stack testing procedures and the location of stack testing ports shall be in accordance with federal Reference Methods 25A and 1 or 1A, respectively, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a))**

2. The permittee shall keep production records on a monthly basis and other records, including the scrubber liquid flow rate, necessary to demonstrate compliance with the VOC emission rate limit listed in SC I.1 and the acetaldehyde emission rate limit listed in SC I.2. The VOC emission rate may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV005	16[1]	39[1]	**R 336.1225**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGFERM
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Yeast tank, fermenters, and beer well

Emission Units: EUYEASTTANK, EUFERM1, EUFERM2, EUFERM3, EUFERM4, EUBEERWELL

POLLUTION CONTROL EQUIPMENT

Fermentation Scrubber (CE016)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	5 pph[2]	Test Protocol*	FGFERM	SC V.1 & VI.2	**R 336.1205(1), R 336.1702(a)**
2. Acetaldehyde	1.55 pph[2]	Test Protocol*	FGFERM	SC V.1 & VI.2	**R 336.1205(1), R 336.1225**
* Test protocol shall specify averaging time.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any equipment in FGFERM unless the Fermentation Scrubber (CE016) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the scrubber liquid flow rate in the range identified in the MAP as constituting satisfactory operation.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

2. The permittee shall equip and maintain the Fermentation Scrubber (CE016) with a liquid flow rate indicator capable of accurately indicating the scrubber liquid flow rate over the entire range of flow rates that constitutes satisfactory operation, as described in the MAP.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of the VOC and acetaldehyde emission rates from FGFERM, by testing at owner's expense, in accordance with Department requirements, will be required. Stack testing procedures and the location of stack testing ports shall be in accordance with federal Reference Methods 25A and 1 or 1A, respectively, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60

days following the last date of the test.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a))**

2. The permittee shall keep production records on a monthly basis and other records, including the scrubber liquid flow rate, necessary to demonstrate compliance with the VOC emission rate limit listed in SC I.1 and the acetaldehyde emission rate limit listed in SC I.2. The VOC emission rate may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV019	24[1]	37[1]	**R 336.1225**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGDDGSDRY
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Dried Distiller's Grains and Solubles (DDGS) dryer, equipped with low NOx burners and controlled by the multiclone (CE006) and valveless regenerative thermal oxidizer (CE007).

Emission Units: EUDDGSDRYER, EUCOOLER, EUVRTO

POLLUTION CONTROL EQUIPMENT

Multiclone (CE006) and Valveless Regenerative Thermal Oxidizer (CE007)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM10	6.0 pph[2]	Test Protocol*	FGDDGSDRY	SC V.1, IV.3, IV.4, VI.2 & VI.4	**R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. VOC	8.0 pph[2]	Test Protocol*	FGDDGSDRY	SC V.1, IV.3, IV.4, VI.2 & VI.3	**R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901**
3. NOx	9.0 pph[2]	Test Protocol*	FGDDGSDRY	SC V.1 & VI.4	**R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
4. CO	11.8 pph[2]	Test Protocol*	FGDDGSDRY	SC V.1 & VI.5	**R 336.1205(1), R 336.2804, 40 CFR 52.21(d)**
5. Acetaldehyde[1]	0.17 pph[1]	Test Protocol*	FGDDGSDRY	SC V.1, IV.3, VI.2 & VI.6	**R 336.1225**
* Test protocol shall specify averaging time.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only use sweet natural gas as fuel in EUDDGSDRYER and in the valveless regenerative thermal oxidizer (VRTO).[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUDDGSDRYER unless the associated multiclone (CE006) and the VRTO (CE007) are installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes taking the actions listed below;[2] **(R 336.1205(1), R 336.1225, R 336.1331, R 336.1702(a), R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

   a. Satisfactory operation of the multiclone includes maintaining it according to the MAP. **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

   b. Satisfactory operation of the VRTO includes maintaining it according to the MAP, attaining a minimum VOC destruction efficiency of 95.0 percent by weight, and maintaining a minimum temperature consistent with satisfactory operation, as described in the MAP. **(R 336.1205(1), R 336.1225, R 336.1331, R 336.1702(a), R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall not operate EUCOOLER unless the VRTO (CE007) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining it according to the MAP, attaining a minimum VOC destruction efficiency of 95.0 percent by weight, and maintaining a minimum temperature consistent with satisfactory operation, as described in the MAP.[2] **(R 336.1205(1), R 336.1225, R 336.1331, R 336.1702(a), R 336.1901, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor, on a continuous basis, the combustion chamber temperature of the VRTO (CE007).[2] **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

4. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to signal an alarm when the combustion chamber temperature of the VRTO (CE007) drops below 1600°F.[2] **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel use for EUDDGSDRY on a continuous basis.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of PM10, VOC, NO_X, CO, and acetaldehyde emission rates from FGDDGSDRY and of the VOC control efficiency of the thermal oxidizer (CE007), by testing at owner's expense, in accordance with Department requirements, will be required. VOC Stack testing procedures and the location of stack testing ports shall be in accordance with federal Reference Methods 25A and 1 or 1A, respectively, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates and control efficiency includes the submittal of a complete report of the test results to the AQD within 60 days following completion of testing.[2] **(R 336.1205(1), R 336.1225, R 336.1331, R 336.1702(a), R 336.1901, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall keep, in a satisfactory manner, records of the date, time, and duration of each alarm event when the combustion chamber temperature of the thermal oxidizer (CE007) falls below 1600°F. During each alarm event, the permittee shall record the combustion chamber temperature of the thermal oxidizer (CE007) at least every fifteen minutes. The permittee shall keep these records on file for a period of at least five years and

make them available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

3. The permittee shall keep monthly production records and other records necessary to demonstrate compliance with the VOC emission rate limit listed in SC I.2. The VOC emission rate may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request[2]. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901)**

4. The permittee shall keep production records on a monthly basis and other records necessary to demonstrate compliance with the PM10 emission rate limit listed in SC I.1 and the NOx emission rate limits listed in SC I.3. The PM10 and NOx emission rates may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

5. The permittee shall keep production records on a monthly basis and other records necessary to demonstrate compliance with the CO emission rate limit listed in SC I.4. The CO emission rate may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2804, 40 CFR 52.21(d))**

6. The permittee shall keep production records on a monthly basis and other records necessary to demonstrate compliance with the acetaldehyde emission rate limit listed in SC I.5. The acetaldehyde emission rate may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[1] **(R 336.1225)**

7. The permittee shall keep, in a satisfactory manner, daily, monthly, and 12-month rolling time period records of the fuel used in EUDDGSDRYER. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV007	72[2]	90[2]	**R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGDDGSHAND
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

DDGS dump pit/auger, DDGS elevator, DDGS conveyor #1, and DDGS load spout

Emission Units: EUDDGSDMPIT, EUDDGSELEV, EUDDGSCONV1, EUDDGSLOADSP

POLLUTION CONTROL EQUIPMENT

DDGS Handling Baghouse (CE008) and DDGS Elevator Baghouse (CE014)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM10	0.1 pph[2]	Average of three 1-hour runs	FGDDGSELEV	SC V.1	**R 336.1201(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. PM10	0.05 pph[2]	Average of three 1-hour runs	FGDDGSLOAD	SC V.1	**R 336.1201(1), R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGDDGSELEV or FGDDGSLOAD unless DDGS elevator baghouse (CE014) or DDGS handling baghouse (CE008), respectively, is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of DDGS elevator baghouse (CE014) and DDGS handling baghouse (CE008) includes maintaining them according to the MAP.[2] **(R 336.1201(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of PM10 emission rates from FGDDGSELEV, by testing at owner's expense, in accordance with Department requirements, will be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test

results to the AQD within 60 days following the last date of the test.[2] **(R 336.1201(1), R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV008	8[2]	25[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. SV014[a]	13[2]	42[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
[a] This stack is not required to be discharged unobstructed vertically upwards to the ambient air.			

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGETHLOAD
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Ethanol truck and rail load-out.

Emission Units: EUTRUCKLOAD, EURAILLOAD

POLLUTION CONTROL EQUIPMENT

Ethanol Loadout Flare (CE009)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total ethanol and denaturant throughput	63.0 million gallons per year[2]	12-month rolling time period*	FGETHLOAD	SC VI.1	**R 336.1205(1), R 336.1225, R 336.1702(a)**
2. Denaturant throughput	3.0 million gallons per year[2]	12-month rolling time period*	FGETHLOAD	SC VI.1	**R 336.1205(1), R 336.1225, R 336.1702(a)**
* 12-month rolling time period as determined at the end of each calendar month.					

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not load more than 100 rail cars in EURAILLOAD that are not owned by the permittee and that are not dedicated to carrying ethanol per 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(1), R 336.1225)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGETHLOAD unless the ethanol loadout flare (CE009) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the ethanol loadout flare (CE009) includes maintaining it according to the MAP.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, records of the monthly and 12-month rolling time period, as determined at the end of each calendar month, denaturant and combined ethanol and denaturant throughput for FGETHLOAD. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.1225, R 336.1702(a))**

2. The permittee shall keep, in a satisfactory manner, records of the ownership of each rail car loaded in EURAILLOAD for each calendar month and for the rolling 12-month time period ending each calendar month. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.1225)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV009	NA	35[1]	**R 336.1225**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGBOILERS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two 92,050,000 BTU/hr natural gas fired boilers

Emission Units: EUBOILER1, EUBOILER2

POLLUTION CONTROL EQUIPMENT

Low NOx burners

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	5.0 pph[2]	Test Protocol*	Each boiler	SC V.1, VI.3 & VI.4	**R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. CO	3.41 pph[2]	Test Protocol*	Each boiler	SC V.1, VI.3 & VI.5	**R 336.1205(1), R 336.2804, 40 CFR 52.21(d)**
* Test protocol shall specify averaging time.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only use sweet natural gas as fuel in FGBOILERS.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel use for EUBOILER1 and EUBOILER2 on a calendar month basis.[2] **(R 336.1205(1), 40 CFR 60.48c(g), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of trial operation, verification of NO_X and CO emission rates from EUBOILER1, by testing at owner's expense, in accordance with Department requirements, will be required. VOC Stack testing procedures and the location of stack testing ports shall be in accordance with federal Reference Methods 25A and 1 or 1A, respectively, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60

days following completion of testing.[2] **(R 336.1205(1), R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall submit the following notifications to the AQD District Supervisor in accordance with 40 CFR 60.48c:[2] **(40 CFR Part 60 Subparts A and Dc)**

   a. A notification of the date when construction was commenced, submitted no later than 30 calendar days after such date.

   b. A notification of the actual date of startup of the source, submitted within 30 calendar days after such date.

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the fuel used in EUBOILER1 and EUBOILER2. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1),R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

4. The permittee shall keep production records on a monthly basis and other records necessary to demonstrate compliance with the NOx emission rate limit listed in SC I.1. The NOx emission rates may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

5. The permittee shall keep production records on a monthly basis and other records necessary to demonstrate compliance with the CO emission rate limit listed in SC I.2. The CO emission rates may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(1), 40 CFR 52.21(d))**

6. The permittee shall keep records of fuel supplier certifications of the sulfur content of the fuels burned in each boiler. The permittee shall keep these records on file for a period of at least five years and make them available to the Department upon request.[2] **(40 CFR 60.45c(c), 40 CFR 60.47c(c))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV015	36[2]	45[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**
2. SV016	36[2]	45[2]	**R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc, as they apply to the equipment in FGBOILERS.[2] **(40 CFR Part 60 Subparts A & Dc)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGNSPSTANKS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

All storage tanks subject to NSPS Kb

Emission Units: EUNATGASTANK, EUNATGASTANK2, EUDENATTANK1, EUDENATTANK2, EU200TANK1, EU200TANK2

POLLUTION CONTROL EQUIPMENT

Internal floating roofs

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not load EU-NATGASOLINE with gasoline from a delivery vessel unless EU-NATGASOLINE is equipped with a permanent submerged fill pipe.[2] **(R 336.1205(1), R 336.1225, R 336.1704, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each tank in FG-NSPSTANKS according to the requirements of 40 CFR 60.112b(a)(1) through (4). These requirements include, but are not limited to, the following:[2] **(R 336.1205(1), R 336.1225, R 336.1702(b), R 336.1910, 40 CFR Part 60 Subparts A & Kb)**

   a. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. **(40 CFR 60.112b(a)(1)(i))**

   b. Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the edge of the internal floating roof that meets the requirements of 40 CFR 60.112b(a)(1)(ii). **(40 CFR 60.112b(a)(1)(ii))**

   c. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. **(40 CFR 60.112b(a)(1)(iii))**

   d. 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 is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) 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))**

e. Automatic bleeder vents shall be equipped with a gasket and are to 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))**

f. Rim space vents shall be equipped with a gasket and are to 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))**

g. 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))**

h. Each penetration of the internal floating roof that allows for 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))**

i. 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))**

2. The permittee shall equip and maintain each FG-NSPSTANKS storage tank with the deck and seal configuration listed in the following table, or a deck and seal configuration that results in the same or lower VOC emissions from the tank.[2]

Equipment	Deck Type	Primary Seal	Applicable Requirement
Each tank	Bolted	Liquid-mounted	R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1910

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform inspections and monitor operating information for FG-NSPSTANKS as required by 40 CFR 60.113b. These requirements include, but are not limited to, the following:[2] **(R 336.1205(1), R 336.1225, R 336.1702(b), R 336.1910, 40 CFR Part 60 Subparts A & Kb)**

   a. Visually inspect the internal floating roof, the primary seal, and the secondary seal prior to filling the storage vessel with volatile organic liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel. **(40 CFR 60.113b(a)(1))**

   b. Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel 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 ten percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than ten years in the case of vessels conducting the annual visual inspection as specified in 40 CFR 60.113b(a)(2) and 40 CFR 60.113b(a)(3)(ii) and at intervals no greater than five years in the case of vessels specified in 40 CFR 60.113b(a)(3)(i). **(40 CFR 60.113b(a)(4))**

2. The permittee shall keep records of inspections and operating information for FGNSPSTANKS as required by 40 CFR Part 60 Subparts A and Kb. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. These requirements include, but are not limited to, the following:[2] **(R 336.1205(1), R 336.1225, R 336.1702(b), R 336.1910, 40 CFR Part 60 Subparts A & Kb)**

a. Keep a record of each inspection performed as required by 40 CFR 60.113b(a). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). **(40 CFR 60.115b(a)(2))**

b. For each storage vessel as specified in 40 CFR 60.110b(a), keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept for the life of the storage vessel. **(40 CFR 60.116b(b))**

c. For each storage vessel, the permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. **(40 CFR 60.116b(c))**

VII. REPORTING

1. The permittee shall submit reports for FG-NSPSTANKS as required by 40 CFR 60.115b. These requirements include, but are not limited to, the following:[2] **(R 336.1205(1), R 336.1225, R 336.1702(b), R 336.1910, 40 CFR Part 60 Subparts A & Kb)**

   a. A report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1) shall be furnished to the USEPA as an attachment to the notification required by 40 CFR 60.7(a)(3). **(40 CFR 60.115b(a)(1))**

   b. If any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), a report shall be furnished to the USEPA within 30 days of the inspection, identifying 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))**

   c. After each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii), a report shall be furnished to the USEPA within 30 days of the inspection, identifying the tank and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3), and list each repair made. **(40 CFR 60.115b(a)(4))**

2. The permittee shall submit notifications for FG-NSPSTANKS as required by 40 CFR Part 60 Subparts A and Kb. These requirements include, but are not limited to, notifying the AQD in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(a)(1) and (a)(4) to afford the AQD the opportunity to have an observer present. If the inspection required by 40 CFR 60.113b(a)(4) is not planned and the permittee could not have known about the inspection 30 days in advance or refilling the tank, the permittee shall notify the AQD at least seven days prior to the refilling of the storage vessel. 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 AQD at least seven days prior to the refilling.[2] **(40 CFR 60.113b(a)(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Kb, as they apply to the equipment in FG-NSPSTANKS.[2] **(40 CFR Part 60 Subparts A and Kb)**

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGNSPSVV
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

All pumps, valves, and pressure relief devices in light liquid and heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open ended valve or line and all associated closed vent systems and control devices.

Emission Units: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate each pressure relief device in gas/vapor service with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c), except during pressure releases and as provided in 40 CFR 60.482-4(c) and (d). After each pressure release, the permittee shall return the pressure relief device to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than five calendar days after the pressure release, the permittee shall monitor the pressure relief device to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background.[2] **(40 CFR 60.482-4(a) and (b))**

2. The permittee shall design and operate vapor recovery systems (for example, condensers and absorbers) used to comply with 40 CFR 60 Subpart VV to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.[2] **(40 CFR 60.482-10(b))**

3. The permittee shall design and operate enclosed combustion devices used to comply with 40 CFR 60 Subpart VV to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to three percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 ºC.[2] **(40 CFR 60.482-10(c))**

4. The permittee shall, if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, follow either one of the following procedures:[2] **(40 CFR 60.482-8(a))**

a. Monitor the equipment within five days by the method specified in 40 CFR 60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. **(40 CFR 60.482-8(a)(1))**

   i. When a leak is detected, the permittee shall repair it as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than five calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described in 40 CFR 60.482-2(c)(2) and 40 CFR 60.482-7(e). **(40 CFR 60.482-8(b) through (d))**

b. Eliminate the visual, audible, olfactory, or other indication of a potential leak within five calendar days of detection. **(40 CFR 60.482-8(a)(2))**

5. The permittee may delay repair of equipment for which leaks have been detected if: [2] **(40 CFR 60.482-9)**

   a. Repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit. **(40 CFR 60.482-9(a))**

   b. The equipment is isolated from the process and does not remain in VOC service. **(40 CFR 60.482-9(b))**

   c. For valves, the permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair and, when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 60.482-10. **(40 CFR 60.482-9(c))**

   d. For pumps, repair requires the use of a dual mechanical seal system that includes a barrier fluid system and repair is completed as soon as practicable, but not later than six months after the leak was detected. **(40 CFR 60.482-9(d))**

   e. For a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted, then delay of repair beyond a process unit shutdown will be allowed. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than six months after the first process unit shutdown. **(40 CFR 60.482-9(e))**

   f. When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition. **(40 CFR 60.482-9(f))**

6. The permittee shall repair leaks of a closed vent system, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, as soon as practicable except as provided below. A first attempt at repair shall be made no later than five calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected.[2] **(40 CFR 60.482-10(g))**

   a. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shut down or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. **(40 CFR 60.482-10(h))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each sampling connection system with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-5(c). Gases displaced during filling of the sample container are not required to be collected or captured. Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR60.482-5(b).[2] **(40 CFR 60.482-5)**

2. The permittee shall equip each open-ended valve or line with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c), 40 CFR 60.482-6(d), or 40 CFR 60.482-6(e), which shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. In addition, the permittee shall ensure that:[2] **(40 CFR 60.482-6)**

   a. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. **(40 CFR 60.482-6(b))**

   b. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 40 CFR 61.482-6(a) at all other times. **(40 CFR 60.482-6(c))**

3. The permittee shall operate closed vent systems and control devices used to comply with 40 CFR 60 Subpart VV at all times when emissions may be vented to them.[2] **(40 CFR 60.482-10(m))**

4. The permittee shall, when each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, do the following:[2]

   a. Attach a weatherproof and readily visible identification, marked with the equipment identification number, to the leaking equipment. The identification on a valve may be removed after it has been monitored for two successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those two months. The identification on equipment except on a valve, may be removed after it has been repaired. **(40 CFR 60.486(b))**

   b. Record the following information in a log that and shall be kept for five years in a readily accessible location: **(40 CFR 60.486(c))**

      i. The instrument and operator identification numbers and the equipment identification number.

      ii. The date the leak was detected and the dates of each attempt to repair the leak.

      iii. Repair methods applied in each attempt to repair the leak.

      iv. “Above 10,000” if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

      v. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

      vi. The signature of the permittee (or designate) whose decision it was that repair could not be effected without a process shutdown.

      vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

      viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.

      ix. The date of successful repair of the leak.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall demonstrate compliance with the requirements of 40 CFR Part 60 Subparts A and VV within 180 days of initial startup. All required testing shall be at owner's expense. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR 60.7(a)(3). Performance testing procedures shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Compliance with 40 CFR 60.482-1 through 40 CFR 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5).[2] **(R 336.1225, R 336.1702(b), 40 CFR Part 60 Subparts A and VV, 40 CFR 60.482-1, 40 CFR 60.485)**

See Appendix 5

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor each pump in light liquid service as follows:

   a. Check, by visual inspection, each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR 60.482-1(f). If there are indications of liquids dripping from the pump seal, the permittee shall follow either of the following procedures. This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event. **(40 CFR 60.482-2(a)(2) and (b)(2))**

      i. Monitor the pump within 5 days as specified in 40 CFR 60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in 40 CFR 60.482-2(c) listed in item c below.

      ii. Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

   b. Monitor monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and (f) and 40 CFR 60.482-2(d), (e), (f), and (g). A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in 40 CFR 60.482-1(c) and (f) and 40 CFR 60.482-2(d), (e) and (f). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. **(40 CFR 60.482-2(a)(1) and (b)(1))**

   When a leak is detected, the permittee shall repair it as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Sec. 60.482-9. A first attempt at repair shall be made no later than five calendar days after each leak is detected. First attempts at repair include, but are not limited to, tightening the packing gland nuts and ensuring that the seal flush is operating at design pressure and temperature.[2] **(40 CFR 60.482-2(c))**

2. The permittee shall monitor each valve in gas/vapor service and in light liquid service monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with the following, except as provided in 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c) and (f):[2] **(40 CFR 60.482-7)**

   a. A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored as follows, except for a valve that replaces a leaking valve and except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.482-1(c), 40 CFR 60.483-1, and 40 CFR 60.483-2. **(40 CFR 60.482-7(a)(2))**

      i. Monitor the valve monthly to detect leaks by the methods specified in 40 CFR 60.485(b). The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

ii. If the valves on the process unit are monitored in accordance with 40 CFR 60.483-1 or 40 CFR 60.483-2, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 CFR 60.483-2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

b. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. **(40 CFR 60.482-7(b))**

c. Any valve for which a leak is not detected for two successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. As an alternative to monitoring all of the valves in the first month of a quarter, the permittee may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The permittee must keep records of the valves assigned to each subgroup. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months. **(40 CFR 60.482-7(c))**

d. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than five calendar days after each leak is detected. **(40 CFR 60.482-7(d))**

e. First attempts at repair include, but are not limited to, the following best practices where practicable: **(40 CFR 60.482-7(e))**

i. Tightening of bonnet bolts;

ii. Replacement of bonnet bolts;

iii. Tightening of packing gland nuts;

iv. Injection of lubricant into lubricated packing.

f. Any valve that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the monthly monitoring if the valve has no external actuating mechanism in contact with the process fluid, is operated with emissions less than 500 ppm above background as determined by the method specified in 40 CFR60.485(c), and is tested for compliance with the 500 ppm above background instrument reading initially upon designation, annually, and at other times requested by the ADQ District Supervisor. **(40 CFR 60.482-7(f))**

g. Any valve that is designated, as described in 40 CFR60.486(f)(1), as an unsafe-to-monitor valve is exempt from the monthly monitoring if the permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of performing monthly monitoring, and the permittee adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. **(40 CFR 60.482-7(g))**

h. Any valve that is designated, as described in 40 CFR60.486(f)(2), as a difficult-to-monitor valve is exempt from the monthly monitoring if: **(40 CFR 60.482-7(g))**

i. The permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support surface,

ii. The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

iii. The permittee follows a written plan that requires monitoring of the valve at least once per calendar year.

3. The permittee shall monitor control devices used to comply with 40 CFR 60 Subpart VV to ensure that they are operated and maintained in conformance with their designs.[2] **(40 CFR 60.482-10(e))**

4. The permittee shall inspect each closed vent system according to the procedures and schedule specified in 40 CFR 60.482-10(f), except as follows:[2] **(40 CFR 60.482-10(f))**

a. The vapor collection system or closed vent system is operated under a vacuum. **(40 CFR 60.482-10(i))**

b. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements if they comply with the following: **(40 CFR 60.482-10(j))**

   i. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger; and

   ii. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

c. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements if they comply with the following: **(40 CFR 60.482-10(k))**

   i. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

   ii. The process unit within which the closed vent system is located becomes an affected facility through 40 CFR 60.14 or 60.15, or the permittee designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

   iii. The permittee has a written plan that requires inspection of the equipment at least once every five years. A closed vent system is exempt from inspection if it is operated under a vacuum.

5. The permittee shall record the following information:[2] **(40 CFR 60.482-10(l))**

   a. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

   b. Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

   c. For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c).

   d. For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

   e. For each visual inspection conducted in accordance with paragraph 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

6. The permittee shall record the following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10. This information shall be kept in a readily accessible location: [2] **(40 CFR 60.486(d))**

   a. Detailed schematics, design specifications, and piping and instrumentation diagrams.

   b. The dates and descriptions of any changes in the design specifications.

   c. A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

   d. Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

   e. Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5.

7. The permittee shall record the following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10. This information shall be kept in a readily accessible location:[2] **(40 CFR 60.486(e))**

   a. A list of identification numbers for equipment subject to the requirements of 40 CFR Part 60 Subpart VV.

b. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). The designation of this equipment shall be signed by the permittee. Alternatively, the permittee may establish a mechanism with the AQD that satisfies this requirement.

c. A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4.

d. The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f), the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test.

e. A list of identification numbers for equipment in vacuum service.

f. A list of identification numbers for equipment that the permittee designates as operating in VOC service less than 300 hr/yr in accordance with 40 CFR 60.482-1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

8. The permittee shall record the following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g). This information shall be kept in a readily accessible location:[2] **(40 CFR 60.486(f))**

   a. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

   b. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

9. The permittee shall record a schedule of monitoring and the percent of valves found leaking during each monitoring period valves complying with Sec. 60.483-2.[2] **(40 CFR 60.486(g))**

10. The permittee shall record the design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and an explanation of the design criterion and any changes to this criterion and the reasons for the changes. This information shall be kept in a readily accessible location.[2] **(40 CFR 60.486(h))**

11. The permittee shall record the following information for use in determining exemptions as provided in 40 CFR 60.480(d). This information shall be kept in a readily accessible location:[2] **(40 CFR 60.486(i))**

    a. An analysis demonstrating the design capacity of the affected facility,

    b. A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

    c. An analysis demonstrating that equipment is not in VOC service.

12. The permittee shall record information and data used to demonstrate that a piece of equipment is not in VOC service. This information shall be kept in a readily accessible location.[2] **(40 CFR 60.486(j))**

VII. REPORTING

1. The permittee shall submit reports as required to comply with the federal NSPS as specified in 40 CFR Part 60 Subparts A and VV. Information required to be submitted to the Administrator shall be submitted to the AQD District Supervisor in an acceptable format within 30 days following the end of the semiannual period in which the data were collected. Information required to be submitted includes semiannual reports, beginning six months after the initial startup date. The initial semiannual report shall include the information listed in 40 CFR 60.487(b) and all semiannual reports shall include the information listed in 40 CFR 60.487(c). The permittee shall keep all required records on file for a period of at least five years and make them available to the Department upon request.[2] **(40 CFR 60.487)**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal NSPS as specified in 40 CFR Part 60 Subparts A and VV, as they apply to FGFACILITY.[2] **(40 CFR Part 60 Subparts A and VV)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

APPENDICES

Appendix 1. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H_2S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO_2	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).