MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
AIR QUALITY DIVISION

December 7, 2010

PERMIT TO INSTALL
175-05C

ISSUED TO
Marysville Ethanol, LLC

LOCATED AT
2510 Busha Highway
Marysville, Michigan

IN THE COUNTY OF
St. Clair

STATE REGISTRATION NUMBER
N7493

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Natural Resources and Environment. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **July 23, 2010**	
DATE PERMIT TO INSTALL APPROVED: **December 7, 2010**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section **Page**

Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDNRE	Michigan Department of Natural Resources and Environment (Department)	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

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

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Natural Resources and Environment, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install 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 this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Natural Resources and Environment. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. 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 Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department 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 condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU-GRAINRECEIVE	Grain receiving equipment, elevator legs, conveyors, storage bins, and ancillary equipment. Emissions are controlled by baghouse C20.	FG-SOLIDSHAND FG-FACILITY
EU-DRYMILLING	Hammer mill feed, two hammer mills, scalping equipment, conveyors, elevator leg, and ancillary equipment. Emissions are controlled by baghouse C30.	FG-SOLIDSHAND FG-FACILITY
EU-COOKWATTK	Cook water tank. Emissions are minimal and uncontrolled.	FG-FACILITY
EU-MASHPREP	Mixer, slurry tanks, cook tube, flash tank, and yeast tank for mash preparation. Emissions are controlled by regenerative thermal oxidizer/heat recovery steam generator C10 (emissions from the cook tube are indirectly routed to C10).	FG-RTO FG-FACILITY
EU-LIQTANKS	Two liquefaction tanks. Emissions are minimal and uncontrolled.	FG-FACILITY
EU-FERMENTATION	Four fermenter tanks and beer well. Emissions are controlled by fermentation CO_2 scrubber C40.	FG-FACILITY
EU-DISTILLATION	Beer column, rectifier column, side stripper, 190 proof condenser, 200 proof condenser, molecular sieves, centrifuges, centrate tank, and ancillary equipment. All equipment exhausts through the 190 proof condenser and 200 proof condenser, which are both controlled by the regenerative thermal oxidizer/heat recovery stem generator C10.	FG-RTO FG-FACILITY
EU-DRYERS	Two 45 MMBtu/hr natural gas-fired dryers. Emissions are controlled by the regenerative thermal oxidizer/heat recovery steam generator C10.	FG-RTO FG-FACILITY
EU-RTO&HRSG	125 MMBtu/hr natural gas fired regenerative thermal oxidizer with a heat recovery steam generator C10, which controls emissions from several emission units.	FG-RTO FG-FACILITY
EU-DDGSCOOLING	DDGS cooling system with an integral fabric filter baghouse C70.	FG-FACILITY
EU-COOLINGTWR	Four cell cooling tower equipped with drift eliminators.	FG-FACILITY
EU-METHANATOR	Biomethanator for wastewater treatment. Emissions are controlled by the DDGS dryers and regenerative thermal oxidizer C10 or flare C60 while the DDGS dryers are not operating.	FG-RTO FG-FACILITY
EU-DDGSLOADOUT	DDGS transfer, handling, and load-out. Emissions are controlled by baghouse C90.	FG-SOLIDSHAND FG-FACILITY
EU-WDGS	Wet distiller's grains and solubles handling operations (WDGS).	FG-FACILITY
EU-190PROOF	165,000 gallon 190 proof ethanol storage tank with an internal floating roof.	FG-NSPSTANKS FG-FACILITY
EU-200PROOF	165,000 gallon 200 proof ethanol storage tank with an internal floating roof.	FG-NSPSTANKS FG-FACILITY
EU-DENATTANK	165,000 gallon denaturant storage tank with an internal floating roof.	FG-NSPSTANKS FG-FACILITY
EU-DENATETOH1	750,000 gallon denatured alcohol storage tank #1 with an internal floating roof.	FG-NSPSTANKS FG-FACILITY

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU-DENATETOH2	750,000 gallon denatured alcohol storage tank #2 with an internal floating roof.	FG-NSPSTANKS FG-FACILITY
EU-COR-INHIB	3,000 gallon fixed roof Corrosion inhibitor storage tank.	FG-FACILITY
EU-ETHLOAD_TRK	Denatured ethanol truck load-out. Emissions are controlled by loadout flare C50.	FG-ETHLOAD FG-FACILITY
EU-ETHLOAD_RL	Denatured ethanol rail load-out. Emissions are controlled by loadout flare C50	FG-ETHLOAD FG-FACILITY
EU-NH3STGTANK	18,000 gallon anhydrous ammonia storage tank.	FG-FACILITY

The following conditions apply to: EU-FERMENTATION

DESCRIPTION: Four fermenter tanks and beer well

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: Fermentation CO_2 scrubber C40

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	5.9 pph	Test protocol	EU-FERMENTATION	SC V.1, VI.1	R 336.1205(1), R 336.1702(a)
2. Acetaldehyde	0.85 pph	Test protocol	EU-FERMENTATION	SC V.1, VI.1	R 336.1205(1), R 336.1225
3. Acrolein	0.186 pph	Test protocol	EU-FERMENTATION	SC V.1, VI.1	R 336.1205(1), R 336.1225

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any equipment in EU-FERMENTATION unless the fermentation CO_2 scrubber C40 is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the scrubber liquid flow rate and sodium bisulfite flow rate in the ranges at which the VOC emission limit was met during the most recent compliance test, identified in the MAP as constituting satisfactory operation. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain the fermentation CO_2 scrubber C40 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. **(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 CO_2 scrubber C40 with a device to measure the sodium bisulfite flow rate over the entire range of flow rates that constitutes satisfactory operation, as described in the MAP. **(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 (calculated on a total mass basis), acetaldehyde, and acrolein emission rates from EU-FERMENTATION, 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. **(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. The permittee shall keep, in a satisfactory manner, daily records of the scrubber liquid flow rate and sodium bisulfite flow rate. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(a))**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. S-40	24	110	R 336.1225

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: EU-DDGSCOOLING

DESCRIPTION: DDGS cooling system

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: Fabric filter baghouse C70

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	1.2 pph	Test protocol	EU-DDGSCOOLING	SC V.1, VI.1, VI.2, VI.3, VI.4	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. VOC	1.5 pph	Test protocol	EU-DDGSCOOLING	SC V.1	R 336.1205(1), R 336.1702(a)
3. Acetaldehyde	0.061 pph	Test protocol	EU-DDGSCOOLING	SC V.1	R 336.1205(1), R 336.1225
4. Acrolein	0.026 pph	Test protocol	EU-DDGSCOOLING	SC V.1	R 336.1205(1), R 336.1225

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU-DDGSCOOLING unless baghouse C70 is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of baghouse C70 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))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain baghouse C70 with a pressure drop gauge. **(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 PM10, VOC (calculated on a total mass basis), acetaldehyde, and acrolein emission rates from EU-DDGSCOOLING, 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. **(R 336.1205(1), R 336.1702(a), 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. The permittee shall conduct a monthly visible emissions check of the EU-DDGSCOOLING vent during routine operating conditions. For the purpose of this condition, such checks do not have to be in accordance with Method 9. If a check reveals any visible emissions from the vent (other than uncombined water vapor), the permittee shall inspect the particulate control system and perform any maintenance required to eliminate visible emissions, as specified in 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))**

2. The permittee shall monitor, in a satisfactory manner, the differential pressure drop across baghouse C70 on a daily basis. **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

3. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for EU-DDGSCOOLING. At a minimum, records shall include the date, time, name of observer/reader, and status of visible emissions. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

4. The permittee shall keep, in a satisfactory manner, records of the differential pressure drop across baghouse C70 on a daily basis and records of whether or not the pressure drop was within the range specified in the MAP. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. S-70	36	135	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: EU-COOLINGTWR

DESCRIPTION: Four cell cooling tower

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: Drift eliminators

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

1. The permittee shall limit the EU-COOLINGTWR cooling water circulation rate to not more than 1,800,000 gallons per hour, based upon a monthly average. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall limit the EU-COOLINGTWR cooling water total dissolved solids content to not more than 2,500 ppm, based upon a quarterly average. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU-COOLINGTWR unless it is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of EU-COOLINGTWR includes maintaining it, including the drift eliminators, 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))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain EU-COOLINGTWR with a water flow rate indicator capable of accurately indicating the EU-COOLINGTWR water circulation rate over the entire range of flow rates that constitutes satisfactory operation, as described in the MAP. Alternatively, the maximum capacity of the pumps may be used to determine the EU-COOLINGTWR water circulation rate. **(R 336.1205(1), 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. The permittee shall determine, on a quarterly basis, the EU-COOLINGTWR cooling water total dissolved solids content. **(R 336.1205(1), 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. The permittee shall keep, in a satisfactory manner, records of the monthly average EU-COOLINGTWR cooling water circulation rate and records of the EU-COOLINGTWR cooling water total dissolved solids content, as determined in accordance with SC V.1. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1))**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

1. NA

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: EU-METHANATOR

DESCRIPTION: Biomethanator for wastewater treatment

Flexible Group ID: FG-RTO, FG-FACILITY

POLLUTION CONTROL EQUIPMENT: DDGS dryers and regenerative thermal oxidizer C10 or flare C60 while the DDGS dryers are not operating

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the equipment in EU-METHANATOR unless the off-gases are routed to either the DDGS dryers and RTO or flare C60. While off gasses from EU-METHANATOR are routed to the DDGS dryers and RTO or flare C60, the control device shall be installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the DDGS dryers, RTO, and flare C60 includes maintaining them according to the MAP. **(R 336.1702, R 336.1910)**

2. The permittee shall design and operate C60 to comply with applicable requirements of 40 CFR 60.18, including: **(40 CFR 60.18(b))**
   a) The permittee shall operate C60 with no visible emissions as determined by the methods specified in 40 CFR 60.18(f)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. **(40 CFR 60.18(c)(1))**
   b) The permittee shall design and operate C60 with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2) or with an interlocked system with an electronic pilot and flame detection system. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1910)**
   c) The permittee shall operate C60 with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified 40 CFR 60.18(f)(3). **(40 CFR 60.18(c)(3))**
   d) If steam assisted or nonassisted, the permittee shall design and operate C60 with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), as follows: **(40 CFR 60.18(c)(4))**
      i) Less than 60 ft/sec, except if the net heating value of the gas being combusted is greater than 1,000 Btu/scf, the exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), shall be less than 400 ft/sec, and
      ii) Less than the velocity, Vmax, as determined by the method specified in 40 CFR 60.18(f)(5) and less than 400 ft/sec.
   e) If air-assisted, the permittee shall design and operate C60 with an exit velocity less than the velocity, Vmax, as determined by the method specified in 40 CFR 60.18(f)(6): **(40 CFR 60.18(c)(5))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. NA

V. TESTING/SAMPLING

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

1. NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor C60 to ensure that it is operated and maintained in conformance with the manufacturer's design, as required by 40 CFR 60.18(d). **(40 CFR 60.18(d))**

2. The permittee shall keep records necessary to demonstrate that C60 is designed and operated in accordance with CFR 60.18. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(b), R 336.1910, 40 CFR Part 60.18)**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. S-60	N/A	34	R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: EU-NH3STGTANK

DESCRIPTION: 18,000 gallon anhydrous ammonia storage tank.

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Except where specific requirements of these special conditions are applicable and more stringent, anhydrous ammonia storage shall comply with "Part 78, Storage and Handling of Anhydrous Ammonia" (MIOSHA 1910.111), hereinafter Rule 7801. A copy of this standard, which may be obtained by contacting the Michigan Department of Consumer and Industry Services, Bureau of Safety and Regulations, Safety Standards Division, 7150 Harris Drive, Lansing, Michigan 48909-8143, shall be maintained for inspection at the facility.[1] **(R 336.1901)**

2. The permittee shall not store anhydrous ammonia on the site unless the inspection and maintenance program specified in Appendix A has been implemented and is maintained. The permittee shall conduct an inspection each calendar quarter.[1] **(R 336.1901)**

3. The permittee shall not store anhydrous ammonia on the site unless a remotely operated internal or external positive shut-off valve is installed to allow access for emergency shut-off of all flow from stationary anhydrous ammonia storage containers.[1] **(R 336.1901)**

4. The permittee shall not store anhydrous ammonia on the site unless all transfer operations, including transport deliveries, are performed by a reliable person properly trained and make them responsible for proper compliance with all applicable procedures.[1] **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. All anhydrous ammonia containers shall be fitted with safety relief valves in accordance with Rule 7801(b)(9). Such valves shall be stamped with the date manufactured, and shall be replaced, or re-tested and re-certified, at least every five years or more often if there is evidence of damage or deterioration.[1] **(R 336.1901)**

2. The permittee shall not store anhydrous ammonia on the site unless a bulkhead, anchorage, or equivalent system is used at each transfer area for anhydrous ammonia so that any break resulting from a pull will occur at a predictable location while retaining intact the valves and piping on the plant side of the transfer area.[1] **(R 336.1901)**

3. The permittee shall not store anhydrous ammonia on the site unless any liquid lines in rail and transport transfer areas for anhydrous ammonia are equipped with back pressure check valves and all liquid lines not requiring a back check valve and all vapor lines are equipped with properly sized excess flow valves. These valves shall be installed on the main container side of the predictable break point at the bulkhead.[1] **(R 336.1901)**

4. All hoses used for anhydrous ammonia shall be replaced five years after date of manufacture or more often if there is evidence of damage or deterioration.[1] **(R 336.1901)**

5. Any vapor or liquid line, exclusive of couplings, requiring venting after ammonia transfer shall be vented through a water trap of 55 gallons minimum size. Safety water shall not be used for this purpose.[1] **(R 336.1901)**

V. TESTING/SAMPLING

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

1. NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records of all inspections conducted to comply with SC III.2. The permittee shall also record any actions taken to correct the deficiencies found during the inspection. The permittee shall keep all records on file and make them available to the Department upon request.[1] **(R 336.1901)**

2. The permittee shall keep, in a satisfactory manner, records of anhydrous ammonia container relief valve replacement or re-testing, as required by SC IV.1, and all anhydrous ammonia hose replacements, as required by SC IV.4. The permittee shall keep all records on file and make them available to the Department upon request.[1] **(R 336.1901)**

VII. REPORTING

1. The permittee shall notify the Pollution Emergency Alerting System (PEAS) 1-800-292-4706 and/or the AQD District Supervisor immediately of any abnormal release of anhydrous ammonia from EU-NH3STGTANK. A normal release includes only hose coupling bleed downs, operation of hydrostatic relief valves, and normal pressure relief from the safety relief valve(s). Relief due to overfilling is not normal.[1] **(R 336.1901)**

VIII. STACK/VENT RESTRICTIONS

1. NA

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: EU-WDGS

DESCRIPTION: Wet distiller's grains and solubles handling operations (WDGS)

Flexible Group ID: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: Emissions will be controlled through compliance with the facility odor management plan (OMP)

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall manage EU-WDGS in manner that minimizes the release of odors to the outside air, in accordance with the facility odor management plan (OMP).[1] **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. NA

V. TESTING/SAMPLING

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

1. 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 necessary to show that EU-WDGS is being managed in accordance with the OMP. The permittee shall keep all records on file and make them available to the Department upon request.[1] **(R 336.1901)**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

1. NA

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

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
FG-SOLIDSHAND	Corn receiving, storing, milling, and handling operations and DDGS storage and handling operations. Emissions are controlled by the Grain Receiving and Handling Baghouse C20, the Milling Baghouse C30, and the DDGS Loadout Baghouse C90.	EU-GRAINRECEIVE, EU-DRYMILLING, EU-DDGSLOADOUT
FG-RTO	All equipment controlled by the regenerative thermal oxidizer, including mash preparation, ethanol distillation, the methanator, and the DDGS dryers.	EU-MASHPREP, EU-DISTILLATION, EU-METHANATOR, EU-DRYERS, EU-RTO&HRSG
FG-ETHLOAD	Denatured ethanol truck and rail load-out. Emissions are controlled by loadout flare C50.	EU-ETHLOAD_TRK, EU-EHTLOAD_RL
FG-NSPSTANKS	Ethanol, denaturant, and denatured ethanol storage tanks. Emissions are controlled by internal floating roofs.	EU-190PROOF, EU-200PROOF, EU-DENATTANK, EU-DENATETOH1, EU-DENATETOH2
FG-NSPSVV	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.	All equipment subject to 40 CFR 60 Subpart VV
FG-FACILITY	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	All emission units at the facility

The following conditions apply to: FG-SOLIDSHAND

DESCRIPTION: Corn receiving, storing, milling, and handling operations and DDGS storage and handling operations

Emission Units: EU-GRAINRECEIVE, EU-DRYMILLING, and EU-DDGSLOADOUT

POLLUTION CONTROL EQUIPMENT: Grain Receiving and Handling Baghouse C20, Milling Baghouse C30, DDGS Loadout Baghouse C90

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	1.67 pph	Test protocol	EU-GRAINRECEIVE	SC V.1, VI.1, VI.4, VI.5	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. PM10	1.18 pph	Test protocol	EU-DRYMILLING	SC V.1, VI.1, VI.4, VI.5	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
3. PM10	0.16 pph	Test protocol	EU-DDGSLOADOUT	SC V.1, VI.1, VI.4, VI.5	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

II. MATERIAL LIMITS

1. The grain receiving rate for EU-GRAINRECEIVE shall not exceed 23,214,300 bushels per 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The EU-DDGSLOADOUT throughput shall not exceed 210,884 tons per year of DDGS, based on a rolling 12-month time period as determined at the end of each calendar month. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU-GRAINRECEIVE, EU-DRYMILLING, or EU-DDGSLOADOUT unless the grain receiving and handling baghouse C20, the milling baghouse C30, or the DDGS loadout baghouse C90, respectively, is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the baghouses includes maintaining them 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))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain baghouse C20, baghouse C30, and baghouse C90 with pressure drop gauges. **(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 PM10 emission rates from EU-GRAINRECEIVE, EU-DRYMILLING, and EU-DDGSLOADOUT, 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. **(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. The permittee shall conduct a monthly visible emissions check of the EU-GRAINRECEIVE vent, the EU-DRYMILLING vent, and the EU-DDGSLOADOUT vent during routine operating conditions. For the purpose of this condition, such checks do not have to be in accordance with Method 9. If a check reveals any visible emissions from the vent (other than uncombined water vapor), the permittee shall inspect the particulate control system and perform any maintenance required to eliminate visible emissions, as specified in 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))**

2. The permittee shall keep, in a satisfactory manner, records of the monthly and 12-month rolling time period total bushels of grain received. The permittee shall keep all records on file and make them available to the Department upon request. **(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, records of the monthly and 12-month rolling time period, as determined at the end of each calendar month, DDGS throughput for EU-DDGSLOADOUT. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**

4. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for EU-GRAINRECEIVE, EU-DRYMILLING, and EU-DDGSLOADOUT. At a minimum, records shall include the date, time, name of observer/reader, and status of visible emissions. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

5. The permittee shall keep, in a satisfactory manner, records of the differential pressure drop across baghouse C20, baghouse C30, and baghouse C90 on a daily basis and records of whether or not the pressure drop was within the range specified in the MAP. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. S-20	46	135	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
2. S-30	38	135	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
3. S-90	14	40	R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: FG-RTO

DESCRIPTION: All equipment controlled by the regenerative thermal oxidizer, including mash preparation, ethanol distillation, the methanator, and the DDGS dryers

Emission Units: EU-MASHPREP, EU-DISTILLATION, EU-METHANATOR, EU-DRYERS, and EU-RTO&HRSG

POLLUTION CONTROL EQUIPMENT: Regenerative Thermal Oxidizer C10

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	3.67 pph	Test protocol	FG-RTO	SC V.1, VI.1, VI.6	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. PM	3.67 pph	Test protocol	FG-RTO	SC V.1, VI.1, VI.6	R 336.1205(1)
3. NOx	0.1 lb/MMBTU	30-day rolling average	EU-RTO&HRSGA	SC V.3, VI.4, VI.9, 40 CFR 60.46b(c), 60.48b(b)	R 336.1205(1), 40 CFR 60.44b(a)
4. NOx	21.5 pph	Test protocol	FG-RTO	SC V.1	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
5. VOC	4.1 pph	Test protocol	FG-RTO	SC V.1, VI.3, VI.8	R 336.1205(1), R 336.1702(a), R 336.1901
6. CO	21.6 pph	Test protocol	FG-RTO	SC V.2, VI.3, VI.8	R 336.1205(1), R 336.2804, 40 CFR 52.21(d)
7. SO_2	10.96 pph	Test protocol	FG-RTO	SC V.1	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
8. Acetaldehyde	0.34 pph	Test protocol	FG-RTO	SC V.1, VI.3, VI.8	R 336.1205(1), R 336.1225
9. Acrolein	0.2 pph	Test protocol	FG-RTO	SC V.1, VI.3, VI.8	R 336.1205(1), R 336.1225

10. Visible emissions from FG-RTO shall not exceed a six-minute average of five percent opacity. **(R 336.1301)**

II. MATERIAL LIMITS

1. The permittee shall use only sweet natural gas and/or biomethanator off-gas as fuel in EU-DRYERS and EU-RTO&HRSG. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

2. The permittee shall limit combined natural gas and biomethanator off-gas usage in each dryer to not more than 394 million standard cubic feet per 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

3. The permittee shall limit combined natural gas and biomethanator off-gas usage in EU-RTO&HRSG to not more than 1,095 million standard cubic feet per 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTIONS

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 Db, as they apply to the equipment in FG-RTO. **(40 CFR Part 60 Subparts A and Db)**

2. The permittee shall not operate FG-RTO unless EU-RTO&HRSG is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining EU-RTO&HRSG according to the MAP and maintaining a minimum EU-RTO&HRSG combustion chamber temperature of 1400ºF or not less than 50ºF below the average combustion chamber temperature at which the VOC emission limit was met during the most recent compliance test, whichever is higher. In lieu of a minimum temperature, an average temperature based upon a three-hour rolling average may be maintained. Operation during startup, including EU-RTO&HRSG combustion chamber temperature, shall be in accordance with 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))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain EU-RTO&HRSG with low-NOx burners. **(R 336.1205(1), R 336.1910, R 336.2803, R 336.2804, 40 CFR Part 60 Subparts A and Db)**

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 PM, PM10, VOC (calculated on a total mass basis), SO_2, NOx, acetaldehyde, and acrolein, emission rates from FG-RTO, 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 completion of testing. **(R 336.1205(1), R 336.1225, 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))**

2. Within 180 days after commencement of trial operation, verification of CO emission rates from FG-RTO, 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 completion of testing. **(R 336.1205(1), R 336.2001, R 336.2003, R 336.2004, R 336.2804, 40 CFR 52.21 (d))**

3. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation, federal Standards of Performance for New Stationary Sources require verification of the NOx emission rate from EU-RTO&HRSG, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and Db, 60.46b. 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). Stack testing procedures and the location of stack testing ports 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. Verification of the emission rate includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.46b)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct a monthly visible emissions check of the EU-RTO&HRSG vent during routine operating conditions. For the purpose of this condition, such checks do not have to be in accordance with Method 9. If a check reveals any visible emissions from the vent (other than uncombined water vapor), the permittee shall inspect the particulate control system and perform any maintenance required to eliminate visible emissions. **(R 336.1205(1), R 336.1301)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the natural gas and biomethanator off-gas usage for EU-RTO&HRSG and each dryer in EU-DRYERS on a continuous basis. **(R 336.1205(1))**

3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record, on a continuous basis, the combustion chamber temperature of thermal oxidizer C10 during operation of EU-RTO&HRSG. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The temperature monitoring device shall be calibrated once per calendar year. **(R 336.1205(1), 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 monitor and record the NOx emissions for EU-RTO&HRSG on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix B and 40 CFR Part 60.48b(b)(1), (c), (d), (e), (f), and shall use the CEMS data for determining compliance with SC I.3. In lieu of the CEMS, the permittee may comply with the 40 CFR 60.48b(g) NOx emission prediction provisions according to the Predictive Emission Monitoring System (PEMS) procedures outlined in the attached Appendix B and 40 CFR Part 60.49b(c). **(R 336.1205(1), 40 CFR 60.48b, 40 CFR 60.49b)**

5. Upon installation of a NOx emission monitor as required by SC VI.4, the permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the flue gas oxygen concentration for EU-RTO&HRSG on a continuous basis and according to the procedures outlined in the attached Appendix B and 40 CFR Part 60.48. **(R 336.1205(1), 40 CFR 60.48b)**

6. The permittee shall keep, in a satisfactory manner, records of visible emission readings for EU-RTO&HRSG, as required by SC VI.1. At a minimum, records shall include the date, time, name of observer/reader, and status of visible emissions. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1301)**

7. The permittee shall keep, in a satisfactory manner, daily, monthly and 12-month rolling time period average natural gas and biomethanator off-gas use records and the annual capacity factor for EU-RTO&HRSG. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each month. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 60.49b(d))**

8. The permittee shall keep, in a satisfactory manner, continuous records of the monitored thermal oxidizer C10 combustion chamber temperature. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

9. The permittee shall keep, in a satisfactory manner the following records for EU-RTO&HRSG for each calendar day pursuant to the requirements of 40 CFR 60.49b:
   a) Calendar date that EU-RTO&HRSG was in operation
   b) Average hourly NOx emission rate in lb/MMBTU heat input
   c) 30-day average NOx emission rate in lb/MMBTU heat input, calculated at the end of each operating day from the hourly NOx emission rates for the preceding 30-days
   d) Excess emissions, reasons for excess emissions, and description for corrective actions taken
   e) Identification of the operating days for which NOx data has not been obtained, reasons for not obtaining the data and description of corrective actions taken

f) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding the data
g) Identification of the "F" factor used for calculations, method of determining the "F" factor and type of fuel combusted
h) Identification of the times when the NOx concentration exceeds full span of the continuous emission monitoring system
i) Description of any modifications to the continuous emission monitoring system that could affect the ability of the continuous emission monitor to comply with Performance Specification 2
j) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of Appendix F of 40 CFR Part 60

The permittee shall keep all records on file and make them available to the Department upon request. Reports of the above information shall be submitted every six months in accordance with 40 CFR 60.49b(w). **(R 336.1205(1), 40 CFR 60.49b(g), (h), (i), (o), (w))**

10. The permittee shall keep, in a satisfactory manner, records of the occurrence and duration of any startup, shutdown, or malfunction in the operation; or any periods during which a continuous monitoring system or monitoring device is inoperative. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.7)**

11. The permittee shall keep records of fuel supplier certifications of the sulfur content of the fuels burned in FG-RTO. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.45b(k), 40 CFR 60.46b(i), 40 CFR 60.47b(g), 40 CFR 60.48b(j))**

12. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of natural gas and biomethanator off-gas combusted in each dryer and EU-RTO&HRSG. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. The permittee shall submit notification to the AQD District Supervisor of the design heat input capacity, the identification of fuels to be combusted and the annual capacity factor for EU-RTO&HRSG as required by 40 CFR 60.7 and 40 CFR 60.49b(a). **(40 CFR 60.49b(a))**

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. S-10	72	125	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENTS

1. NA

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

The following conditions apply to: FG-ETHLOAD

DESCRIPTION: Denatured ethanol truck and rail load-out

Emission Units: EU-ETHLOAD_TRK, EU-ETHLOAD_RL

POLLUTION CONTROL EQUIPMENT: Loadout flare C50

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total ethanol and denaturant throughput	65 million gallons per year	12-month rolling time period*	FG-ETHLOAD	SC VI.2	R 336.1205(1), R 336.1225, R 336.1702(a)
2. Denaturant throughput	3.095 million gallons per year	12-month rolling time period*	FG-ETHLOAD	SC VI.2	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 RESTRICTIONS

1. The permittee shall design and operate flare C50 to comply with applicable requirements of 40 CFR 60.18, including: **(R 336.1205(1), R 336.1225, 40 CFR 60.18(b))**
   a) The permittee shall operate flare C50 with no visible emissions as determined by the methods specified in 40 CFR 60.18(f)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. **(40 CFR 60.18(c)(1))**
   b) The permittee shall design and operate flare C50 with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2) or with an interlocked loadout system with an electronic pilot and flame detection system. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1910)**
   c) The permittee shall operate flare C50 with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified 40 CFR 60.18(f)(3). **(40 CFR 60.18(c)(3))**
   d) If steam assisted or nonassisted, the permittee shall design and operate flare C50 with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), as follows: **(40 CFR 60.18(c)(4))**
      i) Less than 60 ft/sec, except if the net heating value of the gas being combusted is greater than 1,000 Btu/scf, the exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), shall be less than 400 ft/sec, and
      ii) Less than the velocity, Vmax, as determined by the method specified in 40 CFR 60.18(f)(5) and less than 400 ft/sec.
   e) If air-assisted, the permittee shall design and operate flare C50 with an exit velocity less than the velocity, Vmax, as determined by the method specified in 40 CFR 60.18(f)(6): **(40 CFR 60.18(c)(5))**

2. The permittee shall not operate EU-ETHLOAD_TRK or EU-ETHLOAD_RL unless loadout flare C50 is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the flare includes maintaining it according to the MAP. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip all loading and vapor return lines with fittings that are designed to be vapor tight. **(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))**

1. NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor flare C50 to ensure that it is operated and maintained in conformance with the manufacturer's design, as required by 40 CFR 60.18(d). **(R 336.1205(1), R 336.1225, 40 CFR 60.18(d))**

2. 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 FG-ETHLOAD. The permittee shall keep these records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(a))**

3. The permittee shall keep records necessary to demonstrate that flare C50 is designed and operated in accordance with CFR 60.18. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), R 336.1225, R 336.1702(b), R 336.1910, 40 CFR Part 60.18)**

VII. REPORTING

1. NA

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. S-50	N/A	25	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

The following conditions apply to: FG-NSPSTANKS

DESCRIPTION: Ethanol, denaturant, and denatured ethanol storage tanks. Emissions are controlled by internal floating roofs.

Emission Units: EU-190PROOF, EU-200PROOF, EU-DENATTANK, EU-DENATETOH1, EU-DENATETOH2

POLLUTION CONTROL EQUIPMENT: Internal floating roofs

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

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. **(40 CFR Part 60 Subparts A and Kb)**

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

IV. DESIGN/EQUIPMENT PARAMETERS

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: **(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.

	Equipment	Deck Type	Primary Seal	Secondary Seal	Applicable Requirement
a.	Each tank	Bolted	Vapor-mounted	Rim-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))**

1. 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: **(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 10 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 10 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 5 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 FG-NSPSTANKS as required by 40 CFR Part 60 Subparts A and Kb. The permittee shall keep all records on file and make them available to the Department upon request. These requirements include, but are not limited to, the following: **(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: **(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 7 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 7 days prior to the refilling. **(40 CFR 60.113b(a)(5))**

VIII. STACK/VENT RESTRICTIONS

1. NA

IX. OTHER REQUIREMENTS

1. NA

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

The following conditions apply to: FG-NSPSVV

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: All equipment subject to 40 CFR 60 Subpart VV

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

1. NA

II. MATERIAL LIMITS

1. NA

III. PROCESS/OPERATIONAL RESTRICTIONS

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 VV, as they apply to the equipment in FG-NSPSVV. **(40 CFR Part 60 Subparts A and VV)**

2. The permittee shall operate each pressure relief device in gas/vapor service with no detectable emissions, as specified in 40 CFR 60.482-4(a) and (b). **(40 CFR 60.482-4(a) and (b))**

3. 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. **(40 CFR 60.482-10(b))**

4. 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 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 ºC (1,500 ºF). **(40 CFR 60.482-10(c))**

5. The permittee shall comply with the standards for pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors in 40 CFR 60.482-8. **(40 CFR 60.482-8)**

6. The permittee may delay repair of equipment for which leaks have been detected as specified in 40 CFR 60.482-9. **(40 CFR 60.482-9)**

7. The permittee shall repair leaks of a closed vent system as specified in 40 CFR 60.482-10(g). **(40 CFR 60.482-10(g))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip each sampling connection system with a closed-purged, closed-loop, or closed-vent system, as specified in 40 CFR 60.482-5. **(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, as specified in 40 CFR 60.482-6. **(40 CFR 60.482-6)**

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. **(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, take the actions specified in 40 CFR 60.286(b) and (c). **(40 CFR 60.486(b) and (c))**

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). **(R 336.1225, R 336.1702(b), 40 CFR Part 60 Subparts A and VV, 40 CFR 60.482-1, 40 CFR 60.485)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall comply with the standards for pumps in light liquid service in 40 CFR 60.482-2. **(40 CFR 60.482-2)**

2. The permittee shall monitor each valve in gas/vapor service and in light liquid service as specified in 40 CFR 60.482-7. **(40 CFR 60.482-7)**

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. **(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). **(40 CFR 60.482-10(f))**

5. The permittee shall record the information specified in 40 CFR 60.282-10(l). **(40 CFR 60.482-10(l))**

6. The permittee shall record the information specified in 40 CFR 60.486(d) 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. **(40 CFR 60.486(d))**

7. The permittee shall record the information specified in 40 CFR 60.486(e) 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. **(40 CFR 60.486(e))**

8. The permittee shall record the information specified in 40 CFR 60.486(f) 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. **(40 CFR 60.486(f))**

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. **(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. **(40 CFR 60.486(h))**

11. The permittee shall record the information specified in 40 CFR 486(i) for use in determining exemptions as provided in 40 CFR 60.480(d). This information shall be kept in a readily accessible location. **(40 CFR 60.486(i))**

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. **(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. 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. **(40 CFR 60.487)**

VIII. STACK/VENT RESTRICTIONS

1. NA

IX. OTHER REQUIREMENTS

1. NA

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

The following conditions apply Source-Wide to: FG-FACILITY

POLLUTION CONTROL EQUIPMENT: Fermentation CO_2 scrubber C40, fabric filter baghouse C70, drift eliminators, flare C60, grain receiving and handling baghouse C20, milling baghouse C30, DDGS loadout baghouse C90, regenerative thermal oxidizer C10, loadout flare C50, storage tank internal floating roofs

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	94.3 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2a	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. VOC	56.3 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2b	R 336.1205(1)
3. CO	96.4 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2c	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(d)
4. PM	43.1 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2d	R 336.1205(1)
5. PM10	42.9 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2e	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
6. PM2.5	29.6 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2f	R 336.1205(3)
7. SO_2	48 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2g	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
8. Each individual HAP	Less than 10 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2h	R 336.1205(1)
9. Aggregate HAPs	Less than 22 tpy	12-month rolling time period*	FG-FACILITY	SC VI.2i	R 336.1205(1)
* 12-month rolling time period as determined at the end of each calendar month					

II. MATERIAL LIMITS

1. The natural gas combustion rate for FG-FACILITY shall not exceed 1,620 million standard cubic feet per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall submit a malfunction abatement plan (MAP) for FG-FACILITY to the AQD District Supervisor. The interim MAP and any future revised MAP shall be subject to review and approval, as provided in Rule 911. The permittee shall not operate any equipment in FG-FACILITY unless the MAP, revised as necessary according to the procedures of Rule 911, is implemented and maintained. 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, as well as identification of maintenance records and calibration records for process monitoring equipment necessary to demonstrate the equipment is maintained and operated in a satisfactory manner. 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. **(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))**

a) The permittee shall submit an interim MAP to the AQD District Supervisor before beginning operation of any equipment in FG-FACILITY.
b) No later than 270 days after commencing operation of any equipment in FG-FACILITY, the permittee shall revise the MAP, based on equipment operating history and the results of the emission testing, and submit the revised MAP to the AQD District Supervisor.

2. The permittee shall submit an odor management plan (OMP) for FG-FACILITY to the AQD District Supervisor. The OMP shall include procedures for maintaining and operating equipment and managing WDGS in a manner that minimizes the release of odors to the outside air, and a program for corrective action. If the OMP fails to address or inadequately addresses an odor release to the outside air that is determined to be unacceptable by the AQD District Supervisor, the owner or operator shall revise the OMP within 45 days after such an event occurs.[1] **(R 336.1901)**
   a) The permittee shall submit an interim OMP to the AQD District Supervisor before beginning operation of any equipment in FG-FACILITY.[1] **(R 336.1901)**
   b) No later than 270 days after commencing operation of any equipment in FG-FACILITY, the permittee shall revise the OMP based on equipment operating history and submit the revised OMP to the AQD District Supervisor.[1] **(R 336.1901)**

3. The permittee shall submit an interim program for continuous fugitive emissions control for all plant roadways and all material handling operations for FG-FACILITY to the AQD District Supervisor before beginning operation of any equipment in FG-FACILITY. No later than 270 days after commencing operation of any equipment in FG-FACILITY, the permittee shall revise the plan based on equipment operating history and submit the revised plan 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 permittee shall not operate any equipment in FG-FACILITY unless the program, revised as necessary, is implemented and maintained. The program shall include the following: **(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 FG-FACILITY 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 FG-FACILITY unless all plant roadways, parking lots, and truck staging areas are paved. **(R 336,1205(1), R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

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 attempt 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))**

1. NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(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 emission calculations for the following pollutants to demonstrate compliance with the emission rate limits specified in the corresponding special conditions. 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.

	Pollutant	Emission Limit	Applicable Requirement
a.	NOx	SC I.1	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
b.	VOC	SC I.2	R 336.1205(1)
c.	CO	SC I.3	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (d)
d.	PM	SC I.4	R 336.1205(1)
e.	PM10	SC I.5	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
f.	PM2.5	SC I.6	R 336.1205(3)
g.	SO_2	SC I.7	R 336.1205(1), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)
h.	Each Individual HAP	SC I.8	R 336.1205(1)
i.	Aggregate HAPs	SC I.9	R 336.1205(1)

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of natural gas combusted for FG-FACILITY. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation for FG-FACILITY 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. **(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 FG-FACILITY. **(R 336.1216(1), R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

1. NA

IX. OTHER REQUIREMENTS

1. NA

Footnotes:

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

Appendix A: Inspection and Maintenance Program

Permanent Ammonia Storage Tank

Inspection Items 1-15 of 30:	Satisfactory?			Action taken to correct deficiency:	Inspection Items 16-30 of 30:	Satisfactory?			Action taken to correct deficiency:
	Yes	No	Date*			Yes	No	Date*	
1. Tank free of leaks					16. Protective gloves, boots, suits or slickers available and in good condition				
2. Tank supports in good condition (no cracked or crumbled concrete, etc.)					17. Gas masks with ammonia type canisters and refill canisters within date limits available				
3. Paint in good condition					18. Emergency clean water, shower or 75 gallon tank available nearby				
4. Equipment locked when not in use					19. Hoses in good condition				
5. Tank properly labeled					20. Hoses no older than 5 years from date of manufacture and marked				
6. Valves and fittings free from leaks and in good condition					21. Vapor and liquid hoses are proper ammonia- type and free of damage or deterioration				
7. Piping properly supported and guards in place					22. Hoses suitably racked to prevent kinking				
8. Pipes free of physical damage and rust and properly painted					23. Hoses, including those on nurse tanks, securely clamped to the nipples				
9. Employees trained in proper filling procedures					24. Gages, pressure and liquid level, operable				
10. Provisions provided for bleeding of transfer hose from the transport truck					25. Valves properly labeled “liquid” and “vapor”				
11. Wheels properly chocked on the transport truck or rail tank car while unloading					26. Safety relief valves within 5 years of manufacture or recertification and marked				
12. Information and warning signs displayed and in good condition					27. Outlet openings on valves and lines free of dirt and rust with protective caps in place				
13. Area free of weeds, trash and other unsafe conditions					28. Safety relief valves free of debris with rain caps installed				
14. Unused equipment stored out of the way					29. Safety relief valve manifold operable				
15. Chemical safety goggles available and in good condition					30. Remote shut-off valve in working order				

Date Inspected: _____ Inspector: _____

* For each item, check if condition is satisfactory or not satisfactory. If condition is not satisfactory, complete date when corrected and record action(s) taken to correct. If condition is not applicable, write NA

Appendix B
NOx and CO_2/O_2 Monitoring
Continuous Emission Monitoring System (CEMS) and
Predictive Emission Monitoring System (PEMS) Requirements

1. Within 30 calendar days after commencement of trial operation, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS/PEMS.

2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the CEMS/PEMS to the AQD for approval.

3. Within 180 calendar days after commencement of trial operation, the permittee shall complete the installation and testing of the CEMS/PEMS.

4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS/PEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
NOx	2
CO_2/O_2	3

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2, 3, and 4 of Appendix B, 40 CFR Part 60. If a PEMS is installed in lieu of a CEMS, the PEMS shall be installed, maintained, and operated in accordance with PS-16 as promulgated.

7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. If a PEMS is installed in lieu of a CEMS, the permittee shall perform the Quality Assurance Procedures of the PEMS set forth in 40 CFR 60, Appendix B, PS-16 as promulgated. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F)

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:

   a) A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

   b) A report of all periods of CEMS/PEMS downtime and corrective action.

   c) A report of the total operating time of the each boiler during the reporting period.

   d) A report of any periods that the CEMS exceeds the instrument range.

   e) If no exceedances or CEMS/PEMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.