

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
AIR QUALITY DIVISION**

October 18, 2021

**PERMIT TO INSTALL**  
258-041

**ISSUED TO**  
Carbon Green BioEnergy, LLC

**LOCATED AT**  
7795 Saddlebag Lake Road  
Woodbury, Michigan 48849

**IN THE COUNTY OF**  
Ionia

**STATE REGISTRATION NUMBER**  
N7412

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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: <b>September 29, 2021</b>	
DATE PERMIT TO INSTALL APPROVED: <b>October 18, 2021</b>	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

## PERMIT TO INSTALL

### Table of Contents

COMMON ACRONYMS .....	2
POLLUTANT / MEASUREMENT ABBREVIATIONS.....	3
GENERAL CONDITIONS .....	4
EMISSION UNIT SPECIAL CONDITIONS.....	6
EMISSION UNIT SUMMARY TABLE .....	6
EUFIREPUMP .....	9
EUDDGSCOOLER.....	10
EUNAPACKBOILER.....	12
EUENA190LOADOUT .....	14
FLEXIBLE GROUP SPECIAL CONDITIONS.....	16
FLEXIBLE GROUP SUMMARY TABLE .....	16
FGCORNHAND .....	18
FGCORNMILL .....	20
FGFERMENTATION.....	22
FGDRYERSLIQHAND .....	24
FGDDGSHAND .....	29
FGNSPSTANKS .....	31
FGETHLOAD .....	34
FGMETHANATORS.....	36
FGNSPSVV .....	38
FGENA .....	41
FGENASTORAGE.....	42
FGNSPSVVa .....	43
FGFACILITY CONDITIONS.....	46
APPENDIX A.....	49

## COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

### POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H <sub>2</sub> S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO <sub>x</sub>	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO <sub>2</sub>	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

## 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 Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, 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 Rule 210 (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 Rule 219 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 Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 condition 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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

## EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EURAILPIT	Rail receiving conveyor	2006	FGCORNHAND
EUTRUCKPIT	Truck receiving conveyor	2006	FGCORNHAND
EURECEIVINGCONV	Receiving transfer conveyor	2006	FGCORNHAND
EUCORNELEV1	Corn elevator #1	2006	FGCORNHAND
EUCORNELEV2	Corn elevator #2	2006	FGCORNHAND
EUCORNBIN1	Corn bin #1	2006	FGCORNHAND
EUCORNBIN2	Corn bin #2	2006	FGCORNHAND
EUCORNBIN3	Corn bin #3	October 2010	FGCORNHAND
EUCORNBIN4	Corn bin #4	October 2012	FGCORNHAND
EUSCALPINGBIN	Scalping bin	2006	FGCORNHAND
EUGRINDINGBIN	Grinding bin	2006	FGCORNHAND
EUWDGS	Wet distiller's grains & solubles handling operations (WDGS)	2006	NA
EUDDGSSTGPILE	Dried distiller's grains and solubles (DDGS) storage pile, including the dump pit/auger	2006	FGDDGSHAND
EUDDGSELEV	DDGS elevator	2006	FGDDGSHAND
EUDDGSRAILCONVEY	DDG rail loadout shuttle conveyor	2006	FGDDGSHAND
EUDDGSLOADOUT	DDGS load spout (Rail and Truck)	2006	FGDDGSHAND
EUDDGSSTGCONVEY	DDGS storage conveyor	2006	FGDDGSHAND
EUSCALPER	Scalper	2006	FGCORNHAND
EUSCALPER2	Scalper #2	October 2012	FGCORNHAND
EUHAMMERMILL1	Hammermill #1	2006	FGCORNMILL
EUHAMMERMILL2	Hammermill #2	2006	FGCORNMILL
EUHAMMERMILL3	Hammermill #3	October 2012	FGCORNMILL
EUHAMMERMILL4	Hammermill #4	TBD	FGCORNMILL
EUFLOURELEVATOR	Flour elevator	2006	FGCORNMILL
EUFLOURCONVEYOR	Flour conveyor	2006	FGCORNMILL
EUCO2DEGASTANK	CO2 degassing tank	TBD	FGFERMENTATION
EUFERMENTER1	Fermenter #1	2006	FGFERMENTATION
EUFERMENTER2	Fermenter #2	2006	FGFERMENTATION
EUFERMENTER3	Fermenter #3	2006	FGFERMENTATION
EUFERMENTER4	Fermenter #4	October 2013	FGFERMENTATION
EUBEERWELL	Beer well	2006	FGFERMENTATION
EUBEERCOLUMN	Beer column	2006	FGDRYERSLIQHAND
EURECTIFIER	Rectifier column	2006	FGDRYERSLIQHAND

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUSIDESTRIP	Side stripper	2006	FGDRYERSLIQHAND
EUMOLSIEVE1	Molecular sieve #1	2006	FGDRYERSLIQHAND
EUMOLSIEVE2	Molecular sieve #2	2006	FGDRYERSLIQHAND, FGFACILITY
EUMOLSIEVE3	Molecular sieve #3	2006	FGDRYERSLIQHAND
EUMASHPREP	Mash preparation consisting of the yeast tank, two liquefaction tanks, and slurry tank.	2006	FGDRYERSLIQHAND
EUDDGSDRYER1	DDGS dryer #1	2006	FGDRYERSLIQHAND
EUDDGSDRYER2	DDGS dryer #2	2006	FGDRYERSLIQHAND
EUTO&HRB	Thermal oxidizer and heat recovery boiler	2006	FGDRYERSLIQHAND
EUCENTRIFUGE1	Centrifuge #1	2006	FGDRYERSLIQHAND
EUCENTRIFUGE2	Centrifuge #2	2006	FGDRYERSLIQHAND
EUCENTRIFUGE3	Centrifuge #3	2006	FGDRYERSLIQHAND
EUCENTRIFUGE4	Centrifuge #4	2006	FGDRYERSLIQHAND
EUCENTRIFUGE5	Centrifuge #5	August 2010	FGDRYERSLIQHAND
EUDDGSCOOLER	DDGS cooling cyclone (centrifugal mechanical separator)	2006	NA
EUETHTRUCKLOAD	Truck load spout (EtOH)	2006	FGETHLOAD
EUETHRAILLOAD	Rail load spout (EtOH)	2006	FGETHLOAD
EUMETHANATORFEED	Methanator feed tank	2006	FGMETHANATORS
EUMETHANATOR1	Methanator #1	2006	FGMETHANATORS
EUMETHANATOR2	Methanator #2	2006	FGMETHANATORS
EU190TANK	100,000-gallon 190 proof tank	2006	FGNSPSTANKS
EUNATGASTANK	100,000-gallon Denaturant tank	2006	FGNSPSTANKS
EUDENATTANK1	750,000-gallon Denatured ethanol storage tank	2006	FGNSPSTANKS
EUDENATTANK2	750,000-gallon Denatured ethanol storage tank	2006	FGNSPSTANKS
EUDENATTANK3	750,000-gallon Denatured ethanol storage tank	April 2012	FGNSPSTANKS
EU200TANK	100,000-gallon 200 proof ethanol storage tank	2006	FGNSPSTANKS
EUGASTANK	25,485-gallon gasoline storage tank	August 2016	FGNSPSTANKS, FGFACILITY
EUFIREPUMP	300 HP emergency back-up diesel engine	2006	NA
EUENAEXTRACTION	Extra Neutral Alcohol (ENA) Extraction Column	TBD	FGENA
EUENARECTIFIER	ENA Rectifier Column	TBD	FGENA
EUENAMETHANOL	ENA Methanol Column	TBD	FGENA
EUENAPURGERECOVERY	ENA Purge Recovery Column	TBD	FGENA
EUENAPRODUCTIONTANK1	100,000-gal Internal Floating Roof ENA Product Storage Tank	TBD	FGENASTORAGE, FGNSPSTANKS
EUENAPRODUCTIONTANK2	100,000-gal Internal Floating Roof ENA Product Storage Tank	TBD	FGENASTORAGE, FGNSPSTANKS
EUENADAYTANK1	50,000-gal Internal Floating Roof ENA Day Tank	TBD	FGENASTORAGE, FGNSPSTANKS

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUNADAYTANK2	50,000-gal Internal Floating Roof ENA Day Tank	TBD	FGENASTORAGE, FGNSPSTANKS
EUENAOFFSPECTANK	30,000-gal internal floating roof ENA Off Spec Tank	TBD	FGENASTORAGE
EUENAPACKBOILER	63 MMBTU/hr NG Process Steam Boiler	TBD	NA
EUENA190LOADOUT	ENA 190 Proof High Purity Ethanol Loadout	TBD	NA

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

<b>EUFIREPUMP EMISSION UNIT CONDITIONS</b>
--

**DESCRIPTION**

300 HP emergency firewater diesel pump.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUFIREPUMP for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1), 40 CFR 52.21(c) & (d))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the hours of operation for EUFIREPUMP, as required by SC III.1. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1), 40 CFR 52.21(c) and (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**EUDDGSCOOLER  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

DDGS cooling cyclone (centrifugal mechanical separator)

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

DDGS Cooler baghouse (C70)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.019 lb/1000 lbs of exhaust gas, on a dry basis	Test Protocol	EUDDGSCOOLER	GC 13	R 336.1205(1), R 336.1331
2. PM10	1.89 lbs/hr	Test Protocol	EUDDGSCOOLER	SC V.1	R 336.1205(1), 40 CFR 52.21 (c) and (d)

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUDDGSCOOLER centrifugal mechanical separator unless the DDGS Cooler baghouse (C70) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the DDGS Cooler baghouse (C70) includes maintaining it according to the malfunction abatement plan (MAP). **(R 336.1205(1), R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

1. Upon request of the AQD District Supervisor, verification of PM10 emission rates from EUDDGSCOOLER, 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 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))**

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVS70	36	135	40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**EUENAPACKBOILER  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

63 MMBTU/hr NG Process Steam Boiler

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Low NOx burner

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx	2.5 lb/hr	Hourly	EUENAPACKBOILER	SC V.1	R 336.1205(3) 40 CFR 52.21 (c) and (d)
2. CO	2.3 lb/hr	Hourly	EUENAPACKBOILER	SC V.1	R 336.1205(3)
3. PM	0.47 lb/hr	Hourly	EUENAPACKBOILER	SC V.1	R 336.1205(3)
4. PM10	0.25 lb/hr	Hourly	EUENAPACKBOILER	SC V.1	R 336.1205(3) 40 CFR 52.21 (c) and (d)
5. PM2.5	0.03 lb/hr	Hourly	EUENAPACKBOILER	SC V.1	R 336.1205(3) 40 CFR 52.21 (c) and (d)

**II. MATERIAL LIMIT(S)**

1. The permittee shall use only sweet natural gas as fuel in the EUENAPACKBOILER. **(R 336.1205(3), 40 CFR 52.21(c) and (d))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EUENAPACKBOILER unless the low NO<sub>x</sub> burner is installed and operating properly. **(R 336.1205(3), R 336.1910, 40 CFR 52.21(c) and (d))**
2. The maximum design heat input capacity for EUENAPACKBOILER shall not exceed a maximum of 63 MMBTU per hour on a fuel heat input basis. **(R 336.1205(3), 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. Upon request of the AQD District Supervisor, the permittee shall verify the NO<sub>x</sub>, CO, PM, PM10, and/or the PM2.5 emission rates from EUENAPACKBOILER by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10 / PM2.5	40 CFR Part 51, Appendix M
NO <sub>x</sub>	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(3), R 336.2001, R 336.2003, R 336.2004, 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 complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available 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(3), 40 CFR 52.21(c) and (d))**
2. The permittee shall maintain on file the natural gas fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the natural gas specifying the maximum total sulfur content. **(R 336.1205(3), 40 CFR 60, Subpart Dc)**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for EUENAPACKBOILER. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

**VII. REPORTING**

1. Within 15 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 startup of EUENAPACKBOILER. **(R 336.1201(7)(a))**

**VIII. STACK/VENT RESTRICTION(S)**

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER	30	50	40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

1. Permittee shall comply with applicable parts of 40 CFR, Part 60, Subpart Dc. **(40 CFR 60, Subpart Dc)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**EUENA190LOADOUT  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

ENA 190 Proof High Purity Ethanol Loadout

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall only load ENA through EUENA190LOADOUT. (R 336.1205(3), R 336.1225, R 336.1702))

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
2. ENA	10 million gallons per year	12-month rolling time period*	EUENA190LOADOUT	SC VI.2	R 336.1205(3), R 336.1225, R 336.1702(a)

\* 12-month rolling time period as determined at the end of each calendar month.

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall only load trucks that are dedicated to ENA transport or that do not contain any organic vapor in EUENA190LOADOUT. (R 336.1205(3), R 336.1225, R 336.1702)

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not load any trucks in EUENA190LOADOUT unless EUENA190LOADOUT is equipped with submerged fill piping. (R 336.1205(3), R 336.1225, R 336.1702)

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available 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(3), R 336.1225, R 336.1702)
2. The permittee shall keep, in a satisfactory manner, separate records of the monthly and 12-month rolling time period, as determined at the end of each calendar month, ENA throughput for EUENA190LOADOUT. The permittee shall keep these records on file and make them available to the Department upon request. (R 336.1205(3), R 336.1225, R 336.1702)

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## FLEXIBLE GROUP SPECIAL CONDITIONS

### 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
FGCORNHAND	Corn receiving, storage, and handling. Emissions are controlled by grain handling baghouse C20.	EUTRUCKPIT, EURAILPIT, EURECEIVINGCONV, EUCORNELEV1, EUCORNELEV2, EUCORNBIN1, EUCORNBIN2, EUCORNBIN3, EUCORNBIN4, EUSCALPINGBIN, EUSCALPER, EUSCALPER2, EUGRINDINGBIN
FGCORNMILL	Corn hammermilling and flour handling. Emissions are controlled by milling baghouse C30.	EUHAMMERMILL1, EUHAMMERMILL2, EUHAMMERMILL3, EUHAMMERMILL4, EUFLOURELEVATOR, EUFLOURCONVEYOR
FGFERMENTATION	Ethanol fermentation tanks and beer well. Emissions are controlled by vent gas water scrubber C40.	EUCO2DEGASTANK, EUFERMENTER1, EUFERMENTER2, EUFERMENTER3, EUFERMENTER4, EUBEERWELL
FGDRYERSLIQHAND	Ethanol distillation and purification, mash preparation, and centrifuges. Emissions are controlled by thermal oxidizer C10.	EUDDGSDRYER1, EUDDGSDRYER2, EUTO&HRB, EUBEERCOLUMN, EUSIDESTRIP, EURECTIFIER, EUMOLSIEVE1, EUMOLSIEVE2, EUMOLSIEVE3, EUCENTRIFUGE1, EUCENTRIFUGE2, EUCENTRIFUGE3, EUCENTRIFUGE5, EUCENTRIFUGE6, EUMASHPREP
FGDDGSHAND	DDGS storage, handling, and loadout. Emissions are controlled by DDGS handling baghouse C90.	EUDDGSSTGPILE, EUDDGSELEV, EUDDGSRAILCONVEY, EUDDGSLOADOUT, EUDDGSSTGCONVEY
FGNSPSTANKS	Storage tanks subject to NSPS Kb. Emissions are controlled by internal floating roofs.	EU190TANK, EUGASTANK, EUNATGASTANK, EUDENATTANK1, EUDENATTANK2, EUDENATTANK3, EU200TANK, EUENAPRODUCTIONTANK1, EUENAPRODUCTIONTANK2, EUENADAYTANK1, EUENADAYTANK2
FGETHLOAD	Truck and rail ethanol loadout. Emissions are controlled by ethanol loadout flare C50.	EUETHTRUCKLOAD, EUETHRAILLOAD
FGMETHANATORS	Biomethanators. Emissions are controlled by thermal oxidizer C10 or the methanator flare when the oxidizer is not operating.	EUMETHANATORFEED, EUMETHANATOR1, EUMETHANATOR2

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGNSPSVV	All pumps, valves, and pressure relief devices in light liquid and heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open-ended valve or line and all associated closed vent systems and control devices.	
FGENA	ENA Distillation Columns	EUENAEXTRACTION, EUENARECTIFIER, EUENAMETHANOL, EUENAPURGERECOVERY
FGENASTORAGE	ENA Storage Tanks. All tanks are equipped with internal floating roofs.	EUENAPRODUCTIONTANK1, EUENAPRODUCTIONTANK2, EUENADAYTANK1, EUENADAYTANK2, EUENAOFFSPECTANK
NSPSVva	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 for which construction, reconstruction, or modification commenced after November 7, 2006.	

**FGCORNHAND  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Corn receiving, storage, and handling

**Emission Unit:** EUTRUCKPIT, EURAILPIT, EURECEIVINGCONV, EUCORNELEV1, EUCORNELEV2, EUCORNBIN1, EUCORNBIN2, EUCORNBIN3, EUCORNBIN4, EUSCALPINGBIN, EUSCALPER, EUSCALPER2, EUGRINDINGBIN

**POLLUTION CONTROL EQUIPMENT**

Grain Handling Baghouse (C20)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.01 lb/1000 lbs of exhaust gas, on a dry basis	Hourly	FGCORNHAND	GC13	R 336.1205(1), R 336.1331
2. PM10	1.67 lbs/hr	Hourly	FGCORNHAND	SC V.1	R 336.1205(1) 40 CFR 52.21 (c) and (d)
3. PM2.5	1.67 lbs/hr	Hourly	FGCORNHAND	SC V.1	R 336.1205(1) 40 CFR 52.21 (c) and (d)

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

- The permittee shall not operate FGCORNHAND unless the grain handling baghouse (C20) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the grain handling baghouse (C20) includes maintaining it according to the malfunction abatement plant (MAP). **(R 336.1205(1), R 336.1331, R 336.1910, 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. Upon request of the AQD District Supervisor, the permittee shall verify PM10 and PM2.5 emission rates from FGCORNHAND by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M and/or 40 CFR Part 60 Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. The hourly emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1205(1), R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVS20	44	125	40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FGCORNMILL  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Corn hammermilling and flour handling

**Emission Unit:** EUHAMMERMILL1, EUHAMMERMILL2, EUHAMMERMILL3, EUHAMMERMILL4, EUFLOURELEVATOR, EUFLOURCONVEYOR

**POLLUTION CONTROL EQUIPMENT**

Milling Baghouse (C30)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.019 lb/1000 lbs of exhaust gas, on a dry basis	Hourly	FGCORNMILL	GC 13	R 336.1205(1), R 336.1331
2. PM10	1.5 lbs/hr	Hourly	FGCORNMILL	SC V.1	R 336.1205(1), 40 CFR 52.21 (c) and (d)
3. PM2.5	1.5 lbs/hr	Hourly	FGCORNMILL	SC V.1	R 336.1205(1), 40 CFR 52.21 (c) and (d)

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate any equipment in FGCORNMILL unless the milling baghouse (C30) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of milling baghouse (C30) includes maintaining them according to the MAP. **(R 336.1205(1), R 336.1331, R 336.1910, 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. Upon request of the AQD District Supervisor, the permittee shall verify PM10 and PM2.5 emission rates from FGCORNHAND by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 51, Appendix M and/or 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. The hourly emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1205(1), R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVS30	32	75	40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FGFERMENTATION  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Ethanol fermentation tanks and beer well

**Emission Unit:** EUACO2DEGASTANK, EUFERMENTER1, EUFERMENTER2, EUFERMENTER3, EUFERMENTER4, EUBEERWELL

**POLLUTION CONTROL EQUIPMENT**

Vent Gas Water Scrubber (C40)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC	10.1 lbs/hr	Hourly	FGFERMENTATION	SC V.1, VI.1	R 336.1205(1), R 336.1225, R 336.1702(a)
2. Acetaldehyde	1.9 lbs/hr	Hourly	FGFERMENTATION	SC V.1, VI.1	R 336.1205(1), R 336.1225

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate any equipment in FGFERMENTATION unless the vent gas scrubber (C40) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining the scrubber liquid flow rate at a minimum of 45 gallons per minute as determined on a daily basis, or the scrubber liquid flow rate at which compliance with the VOC emission limit was demonstrated during the most recent compliance test; maintaining the sodium bisulfite (38 – 40 percent by weight) addition rate at a minimum of 1.5 gallons per hour (or its equivalent) as determined on a daily basis, or the chemical and chemical feed rate at which compliance with the acetaldehyde emission limit was demonstrated during the most recent compliance test; and operating the scrubber in accordance with 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 vent gas scrubber (C40) with liquid flow rate and sodium bisulfite flow rate indicators capable of accurately indicating the flow rates over the entire range of flow rates that constitute satisfactory operation. **(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 of the vent gas scrubber (C40), and upon request of the AQD District Supervisor thereafter, the permittee shall verify VOC and acetaldehyde emission rates from FGFERMENTATION by testing at owner’s expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in Reference Test Method Table 1. The hourly emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements.

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1), R 336.1225, R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

**Reference Test Method Table 1**

Pollutant	Test Method Reference
VOCs	40 CFR Part 60, Appendix A
Acetaldehyde	40 CFR Part 63, Appendix A

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep production records on a monthly basis and other records, including the scrubber liquid flow rate and sodium bisulfite flow rate, necessary to demonstrate compliance with the VOC and acetaldehyde emission rate limits listed in SC I.1 and I.2. The VOC and acetaldehyde emission rates may be calculated based upon monthly records, prorated to an hourly 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**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVS40	28	72	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FGDRYERSLIQHAND  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Ethanol distillation and purification, mash preparation, and centrifuges

**Emission Unit:** EUDDGSDRYER1, EUDDGSDRYER2, EUTO&HRB, EUBEERCOLUMN, EUSIDESTRIP, EURECTIFIER, EUMOLSIEVE1, EUMOLSIEVE2, EUMOLSIEVE3, EUCENTRIFUGE1, EUCENTRIFUGE2, EUCENTRIFUGE3, EUCENTRIFUGE4, EUCENTRIFUGE5, EUMASHPREP

**POLLUTION CONTROL EQUIPMENT**

Thermal Oxidizer (C10)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.019 lb/1000 lbs of exhaust gas, on a dry basis, corrected to 50% excess air	Hourly	FGDRYERSLIQHAND	GC 13	R 336.1331
2. PM10	4.9 lb/hr	Hourly	FGDRYERSLIQHAND	SC V.1, VI.7	R 336.1205(1), 40 CFR 52.21 (c) and (d)
3. PM2.5	4.9 lb/hr	Hourly	FGDRYERSLIQHAND	SC V.1, VI.7	R 336.1205(1), 40 CFR 52.21 (c) and (d)
4. VOC	4.9 lb/hr	Hourly	FGDRYERSLIQHAND	SC V.1, VI.1, VI.5, VI.8	R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901
5. NOx	20.9 lb/hr	Hourly	FGDRYERSLIQHAND	SC V.1, VI.7	R 336.1205(1), 40 CFR 52.21 (c) and (d)
6. CO	20.4 lb/hr	Hourly	FGDRYERSLIQHAND	SC V.1, VI.9	R 336.1205(1), 40 CFR 52.21(d)
7. SO2	14.84 lb/hr	Hourly	FGDRYERSLIQHAND	SC V.1, VI.9	R 336.1205(3), 40 CFR 52.21(d)
8. NOx	0.1 lb/MMBTU	30-day rolling average	EUTO&HRB	40 CFR 60.46b(c), 60.48b(b)	R 336.1205(1), 40 CFR 60.44b (a)
9. NOx	83.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGDRYERSLIQHAND	SC VI.13	R 336.1205(1)

**II. MATERIAL LIMIT(S)**

1. The permittee shall use sweet natural gas and/or biomethanator off-gas as fuel in EUDDGSDRYER1 and EUDDGSDRYER2. **(R 336.1205(1), 40 CFR 52.21(c) and (d))**
2. The permittee shall use only sweet natural gas as supplemental fuel in the thermal oxidizer. **(R 336.1205(1), 40 CFR 52.21(c) and (d))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate FGDRYERSLIQHAND unless the thermal oxidizer (C10) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of thermal oxidizer (C10) includes maintaining it according to the MAP, attaining a minimum VOC destruction efficiency of 95.0 percent by weight, and maintaining the combustion chamber temperature at or above 90 percent of the average combustion chamber temperature for which a minimum 95.0 percent VOC destruction efficiency was achieved during the most recent compliance test demonstration. **(R 336.1205(1), R 336.1225, R 336.1331, R 336.1702(a), R 336.1901, R 336.1910, 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. Upon request of the AQD District Supervisor, the permittee shall verify PM10, PM2.5, VOC, NOx, CO, and SO<sub>2</sub> emission rates from FGDRYERSLIQHAND by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in Reference Test Method Table 2. The hourly emission rate during testing shall be determined by the average of the acceptable test runs performed in accordance with the method requirements.

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1), R 336.1225, R 336.1702, R 336.1901, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

**Reference Test Method Table 2**

Pollutant	Test Method Reference
PM10/PM2.5	40 CFR Part 51, Appendix M
NOx	40 CFR Part 60, Appendix A
SO <sub>2</sub>	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOCs	40 CFR Part 60, Appendix A

2. 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 NOx emission rates from EUTO&HRB, 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). Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60 Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test

results to the AQD Technical Programs Unit and District Office 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 install, calibrate, maintain, and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the thermal oxidizer (C10) to monitor and record the temperature on a continuous basis, during operation of EUTO&HRB. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**
2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the NOx emissions for EUTO&HRB on a continuous basis and according to the procedures outlined in Appendix A attached and 40 CFR Part 60.48b(b)(1), (c), (d), (e), (f). **(R 336.1205(1), 40 CFR 60.48b)**
3. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 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)**
4. The permittee shall keep, in a satisfactory manner, daily, monthly and 12-month rolling time period average fuel use records and the annual capacity factor for EUTO&HRB. 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(1), 40 CFR 60.49b(d))**
5. The permittee shall keep, in a satisfactory manner, continuous records of the monitored thermal oxidizer (C10) combustion chamber temperature. 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), R 336.1901, R 336.1910)**
6. The permittee shall keep, in a satisfactory manner the following records for EUTO&HRB for each calendar day pursuant to the requirements of 40 CFR 60.49b:
  - a) Calendar date that EUTO&HRB was in operation **(40 CFR 60.49b(g)(1))**
  - b) Average hourly NOx emission rate (in lb/MMBTU heat input) measured or predicted. **(40 CFR 60.49b(g)(2))**
  - 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. **(40 CFR 60.49b(g)(3))**
  - d) Excess emissions, reasons for excess emissions, and description for corrective actions taken. **(40 CFR 60.49b(g)(4))**
  - 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. **(40 CFR 60.49b(g)(5))**
  - 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. **(40 CFR 60.49b(g)(6))**
  - g) Identification of the "F" factor used for calculations, method of determining the "F" factor and type of fuel combusted. **(40 CFR 60.49b(g)(7))**
  - h) Identification of the times when the NOx concentration exceeds full span of the continuous emission monitoring system. **(40 CFR 60.49b(g)(8))**
  - 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. **(40 CFR 60.49b(g)(9))**
  - 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))**

7. The permittee shall keep, in a satisfactory manner, production records on a monthly basis and other records necessary to demonstrate compliance with the PM10 emission rate limit listed in SC I.2 and the NOx emission rate limit listed in SC I.4. The PM10 and NOx emission rates may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file and make them available to the Department upon request. **(R 336.1205(1), 40 CFR 52.21(c) and (d))**
8. The permittee shall keep, in a satisfactory manner, monthly production records and other records necessary to demonstrate compliance with the VOC emission rate limit listed in SC I.3. The VOC emission rate may be calculated based upon monthly records, prorated to an hourly rate. 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), R 336.1901)**
9. The permittee shall keep, in a satisfactory manner, production records on a monthly basis and other records necessary to demonstrate compliance with the CO emission rate limit listed in SC I.5. The CO emission rate may be calculated based upon monthly records, prorated to an hourly rate. The permittee shall keep these records on file and make them available to the Department upon request. **(R 336.1205(1), 40 CFR 52.21(d))**
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 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 EUTO&HRB as required by 40 CFR 60.7 and 40 CFR 60.49b(a). **(40 CFR 60.49b(a))**
12. The permittee shall keep records of fuel supplier certifications of the sulfur content of the fuels burned in FGDRYERSLIQHAND. 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))**
13. The permittee shall calculate and keep, in a manner satisfactory to the AQD District Supervisor, records of the monthly and 12-month rolling time period NOx emissions for FGDRYERSLIQHAND. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVS10	72	135	R 336.1225, R 336.1901, 40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

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

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FGDDGSHAND  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

DDGS storage, handling, and loadout

**Emission Unit:** EUDDGSSTGPILE, EUDDGSELEV, EUDDGSRAILCONVEY, EUDDGSLOADOUT, EUDDGSSTGCONVEY

**POLLUTION CONTROL EQUIPMENT**

DDGS Handling Baghouse (C90)

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.019 lb/1000 lbs of exhaust gas, on a dry basis	Test Protocol	FGDDGSHAND	GC 13	R 336.1205(1), R 336.1331
2. PM10	0.32 lbs/hr	Test Protocol	FGDDGSHAND	SC V.1	R 336.1205(1), 40 CFR 52.21 (c) & (d)

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate any equipment in FGDDGSHAND unless the DDGS handling baghouse (C90) is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the DDGS handling baghouse (C90) includes maintaining it according to the MAP. **(R 336.1205(1), R 336.1331, R 336.1910, 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. Upon request of the AQD District Supervisor, verification of PM10 emission rates from FGDDGSHAND, 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 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))**

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVS90	14	40	40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## FGNSPSTANKS FLEXIBLE GROUP CONDITIONS

### DESCRIPTION

Storage tanks subject to NSPS Kb

**Emission Unit:** EU190TANK, EUGASTANK, EUNATGASTANK, EUDENATTANK1, EUDENATTANK2, EUDENATTANK3, EU200TANK, EUENAPRODUCTIONTANK1, EUENAPRODUCTIONTANK2, EUENADAYTANK1, EUENADAYTANK2

### POLLUTION CONTROL EQUIPMENT

Internal Floating Roofs

#### I. EMISSION LIMIT(S)

NA

#### II. MATERIAL LIMIT(S)

NA

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

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

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each tank in FGNSPSTANKS 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 FGNSPSTANKS 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.

<b>Equipment</b>	<b>Deck Type</b>	<b>Primary Seal</b>	<b>Secondary Seal</b>	<b>Applicable Requirement</b>
EUGASTANK (25,485-gallon gasoline storage tank)	Welded	Mechanical Shoe	Rim-mounted	R 336.1205(1), R 336.1225, R 336.1702(a), R 336.1910
All other tanks	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))**

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 FGNSPSTANKS 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 ten percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than ten years in the case of vessels conducting the annual visual inspection as specified in 40 CFR 60.113b(a)(2) and 40 CFR 60.113b(a)(3)(ii) and at intervals no greater than five years in the case of vessels specified in 40 CFR 60.113b(a)(3)(i). **(40 CFR 60.113b(a)(4))**
- 2. The permittee shall keep records of inspections and operating information for FGNSPSTANKS as required by 40 CFR Part 60 Subparts A and Kb. The permittee shall keep all records on file 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 FGNSPSTANKS 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 FGNSPSTANKS as required by 40 CFR Part 60 Subparts A and Kb. These requirements include, but are not limited to, notifying the AQD in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(a)(1) and (a)(4) to afford the AQD the opportunity to have an observer present. If the inspection required by 40 CFR 60.113b(a)(4) is not planned and the permittee could not have known about the inspection 30 days in advance or refilling the tank, the permittee shall notify the AQD at least seven days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the AQD at least seven days prior to the refilling. **(40 CFR 60.113b(a)(5))**

## **VIII. STACK/VENT RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Kb, as they apply to each storage tank in FGNSPSTANKS. **(40 CFR Part 60 Subparts A and Kb)**

### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<b>FGETHLOAD FLEXIBLE GROUP CONDITIONS</b>
--

**DESCRIPTION**

Truck and rail ethanol loadout

**Emission Unit:** EUETHTRUCKLOAD, EUETHRAILLOAD

**POLLUTION CONTROL EQUIPMENT**

Ethanol Loadout Flare (C50)

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

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

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep, in a satisfactory manner, separate records of the monthly and 12-month rolling time period, as determined at the end of each calendar month, ethanol and denaturant throughput for FGETHLOAD. The permittee shall keep these records on file and make them available to the Department upon request. **(R 336.1205(3), R 336.1225, R 336.1702(a))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVS50 <sup>1</sup>	60	20	R 336.1225

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FGMETHANATORS  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Biomethanator system

**Emission Unit:** EUMETHANATORFEED, EUMETHANATOR1, EUMETHANATOR2

**POLLUTION CONTROL EQUIPMENT**

Thermal Oxidizer (C10), Methanator Flare

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. VOC from natural gas combustion in the flare	0.8 tpy	12-month rolling time period*	FGMETHANATORS	GC 13	R 336.1702(a)
2. NOx from natural gas combustion in the flare	1.0 tpy	12-month rolling time period*	FGMETHANATORS	GC 13	40 CFR 52.21 (c) and (d)
3. CO from natural gas combustion in the flare	5.2 tpy	12-month rolling time period*	FGMETHANATORS	GC 13	40 CFR 52.21(d)

\* 12-month rolling time period as determined at the end of each calendar month.

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the equipment in FGMETHANATORS unless the off-gases are routed through either the dryers or the methanator flare. The dryers or methanator flare, when off-gases from FGMETHANATORS are routed to either of them, shall be installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the dryers and methanator flare includes maintaining it according to the MAP. (R 336.1702, R 336.1910)

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVMETHFLARE	17	11	R 336.1225, R 336.1702, 40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<b>FGNSPSV FLEXIBLE GROUP CONDITIONS</b>
--

**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 Unit:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. 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))**
2. The permittee shall design and operate vapor recovery systems (for example, condensers and absorbers) used to comply with 40 CFR 60 subpart VV to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. **(40 CFR 60.482-10(b))**
3. The permittee shall design and operate enclosed combustion devices used to comply with 40 CFR 60 Subpart VV to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C (1,500 °F). **(40 CFR 60.482-10(c))**
4. 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)**
5. 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)**
6. 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 PARAMETER(S)**

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 60.486(b) and (c). **(40 CFR 60.486(b) & (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 60.482-10(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 40 CFR 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 RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

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

### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<b>FGENA FLEXIBLE GROUP CONDITIONS</b>
--

**DESCRIPTION**

ENA Distillation Columns

**Emission Unit:** EUENAEXTRACTION, EUENARECTIFIER, EUENAMETHANOL, EUENAPURGERECOVERY

**POLLUTION CONTROL EQUIPMENT**

Thermal Oxidizer (C10)

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the equipment in FGENA unless the FGENA vapor stream is routed through the thermal oxidizer (C10). The thermal oxidizer shall be installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining it according to the MAP. **(R 336.1205(3), R 336.1225, R 336.1702, R 336.1910)**

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<b>FGENASTORAGE FLEXIBLE GROUP CONDITIONS</b>
---

**DESCRIPTION**

ENA Storage Tanks. All tanks are equipped with internal floating roofs.

**Emission Unit:** EUENAPRODUCTIONTANK1, EUENAPRODUCTIONTANK2, EUENADAYTANK1, EUENADAYTANK2, EUENAOFFSPECTANK

**POLLUTION CONTROL EQUIPMENT**

Internal floating roofs

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall only store ethanol in FGENASTORAGE. (R 336.1205(3), R 336.1225, R 336.1702)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not store any material in any tank in FGENASTORAGE unless that tank's internal floating roof is installed, maintained, and operated in a satisfactory manner. (R 336.1205(3), R 336.1225, R 336.1702, R 335.1910)

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FGNSPSVVa**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

All pumps, valves, and pressure relief devices in light liquid and heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open-ended valve or line and all associated closed vent systems and control devices for which construction, reconstruction, or modification commenced after November 7, 2006.

**Emission Unit:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall operate each pressure relief device in gas/vapor service with no detectable emissions, as specified in 40 CFR 60.482-4a(a) and (b). **(40 CFR 60.482-4a(a) and (b))**
2. The permittee shall design and operate vapor recovery systems (for example, condensers and absorbers) used to comply with 40 CFR Part 60 Subpart VVa 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 60.482-10a(b))**
3. The permittee shall design and operate enclosed combustion devices used to comply with 40 CFR Part 60 Subpart VVa to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to three percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C. **(40 CFR 60.482-10a(c))**
4. The permittee shall comply with the standards for pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service in 40 CFR 60.482-8a. **(40 CFR 60.482-8a)**
5. The permittee may delay repair of equipment for which leaks have been detected as specified in 40 CFR 60.482-9a. **(40 CFR 60.482-9a)**
6. The permittee shall repair leaks of a closed vent system as specified in 40 CFR 60.482-10a(g). **(40 CFR 60.482-10a(g))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall equip each sampling connection system with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-5a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b). **(40 CFR 60.482-5a)**

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 60.482-6a, except as provided in 40 CFR 60.482-1a(c), 40 CFR 60.482-6a(d), or 40 CFR 60.482-6a(e). **(40 CFR 60.482-6a)**
3. The permittee shall operate closed vent systems and control devices used to comply with 40 CFR Part 60 subpart VVa at all times when emissions may be vented to them. **(40 CFR 60.482-10a(m))**
4. The permittee shall, when each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, take the actions specified in 40 CFR 60.486a(b) and (c). **(40 CFR 60.486a(b) & (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 VVa 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 60.482-1a through 40 CFR 60.482-11a 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 60.485a. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-11a if it is identified as required in 40 CFR 60.486a(e)(5). **(R 336.1225, R 336.1702(b), 40 CFR Part 60 Subparts A and VVa, 40 CFR 60.482-1a, 40 CFR 60.485a)**

#### **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 60.482-2a. **(40 CFR 60.482-2a)**
2. The permittee shall monitor each valve in gas/vapor service and in light liquid service as specified in 40 CFR 60.482-7a. **(40 CFR 60.482-7a)**
3. The permittee shall monitor control devices used to comply with 40 CFR 60 Subpart VVa to ensure that they are operated and maintained in conformance with their designs. **(40 CFR 60.482-10a(e))**
4. The permittee shall inspect each closed vent system according to the procedures and schedule specified in 40 CFR 60.482-10a(f), except as allowed by 40 CFR 60.482-10a(i) through (k). **(40 CFR 60.482-10a(f))**
5. The permittee shall record the information specified in 40 CFR 60.482-10a(l). **(40 CFR 60.482-10a(l))**
6. The permittee shall record the information specified in 40 CFR 60.486a(d) pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a. This information shall be kept in a readily accessible location. **(40 CFR 60.486a(d))**
7. The permittee shall record the information specified in 40 CFR 60.486a(e) pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a. This information shall be kept in a readily accessible location. **(40 CFR 40.486a(e))**
8. The permittee shall record the information specified in 40 CFR 60.486a(f) pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e). This information shall be kept in a readily accessible location. **(40 CFR 40.486a(f))**
9. The permittee shall record a schedule of monitoring and the percent of valves found leaking during each monitoring period for valves complying with Sec. 60.483-2a. **(40 CFR 40.486a(g))**

10. The permittee shall record the design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2), an explanation of the design criterion, any changes to this criterion, and the reasons for the changes. This information shall be kept in a readily accessible location. **(40 CFR 60.486a(h))**
11. The permittee shall record the information specified in 40 CFR 60.486a(i) for use in determining exemptions as provided in 40 CFR 60.480a(d). This information shall be kept in a readily accessible location. **(40 CFR 60.486a(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 60.486a(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 VVa. Information required to be submitted to the Administrator shall be submitted to the AQD District Supervisor in an acceptable format within 30 days following the end of the semiannual period in which the data were collected. Information required to be submitted includes semiannual reports, beginning six months after the initial startup date. The initial semiannual report shall include the information listed in 40 CFR 60.487a(b) and all semiannual reports shall include the information listed in 40 CFR 60.487a(c). The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.487a)**

## **VIII. STACK/VENT RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

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

### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## FGFACILITY CONDITIONS

### DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

### POLLUTION CONTROL EQUIPMENT

Baghouses, water scrubber, thermal oxidizer, flares, internal floating roofs

#### I. EMISSION LIMIT(S)

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx	95.0 tpy	12-month rolling time period*	FGFACILITY	SC VI.2	R 336.1205(1) 40 CFR 52.21(c) and (d)
2. VOC	98.0 tpy	12-month rolling time period*	FGFACILITY	SC VI.3	R 336.1205(1)
3. CO	98.0 tpy	12-month rolling time period*	FGFACILITY	SC VI.4	R 336.1205(1), 40 CFR 52.21(d)
4. PM10	60.0 tpy	12-month rolling time period*	FGFACILITY	SC VI.5	R 336.1205(3), 40 CFR 52.21(d)
5. PM2.5	60.0 tpy	12-month rolling time period*	FGFACILITY	SC VI.6	R 336.1205(3), 40 CFR 52.21(d)
6. SO2	65.0 tpy	12-month rolling time period*	FGFACILITY	SC VI.7	R 336.1205(3), 40 CFR 52.21(d)
7. Hazardous Air Pollutants (HAPs)	less than 10 tpy of any individual HAP	12-month rolling time period*	FGFACILITY	SC VI.8	R 336.1205(1)
8. HAPs	less than 25 tpy of aggregate of HAPs	12-month rolling time period*	FGFACILITY	SC VI.8	R 336.1205(1)

\* 12-month rolling time period as determined at the end of each calendar month

#### II. MATERIAL LIMIT(S)

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Total ethanol and denaturant	79.9 million gallons per year	12-month rolling time period*	FGFACILITY	SC VI.9	R 336.1205(3), R 336.1225, R 336.1702(a)
2. Denaturant	8.0 million gallons per year	12-month rolling time period*	FGFACILITY	SC VI.9	R 336.1205(3), R 336.1225

\* 12-month rolling time period as determined at the end of each calendar month.

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall submit a malfunction abatement plan (MAP) for the Carbon Green BioEnergy portion of FGFACILITY 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 FGFACILITY 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. 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, 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 the Carbon Green BioEnergy portion of FGFACILITY. **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**
  - b) No later than 270 days after commencing operation of any equipment in the Carbon Green BioEnergy portion of FGFACILITY, 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. **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))**
2. The permittee shall submit an odor management plan (OMP) for the Carbon Green BioEnergy portion of FGFACILITY 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 for such events. If the OMP fails to address or inadequately addresses an event that results in an odor release to the outside air at the time the plan is initially developed, the owner or operator shall revise the OMP within 45 days after such an event occurs. **(R 336.1901)**
  - a. The permittee shall submit an interim OMP to the AQD District Supervisor before beginning operation of any equipment in the Carbon Green BioEnergy portion of FGFACILITY. **(R 336.1901)**
  - b. No later than 270 days after commencing operation of any equipment in the Carbon Green BioEnergy portion of FGFACILITY, the permittee shall revise the OMP based on equipment operating history and submit the revised OMP to the AQD District Supervisor. **(R 336.1901)**
3. The permittee shall not operate the Carbon Green BioEnergy portion of FGFACILITY unless all plant roadways are paved, except for the construction phase and up to 180 days after completion of the construction phase. **(R 336.1205(1), R 336.1301, 40 CFR 52.21(c) and (d))**

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

### **V. TESTING/SAMPLING**

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

NA

### **VI. MONITORING/RECORDKEEPING**

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

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(1), 40 CFR 52.21(c) and (d))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx emission calculations to demonstrate compliance with the limit in SC I.1. The permittee shall keep all required records on file make them available to the Department upon request. **(R 336.1205(1), 40 CFR 52.21(c) and (d))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period VOC emission calculations to demonstrate compliance with the limit in SC I.2. The permittee shall keep all required records on file and make them available to the Department upon request. **(R 336.1205(1))**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO emission calculations to demonstrate compliance with the limit in SC I.3. The permittee shall keep all required records on file and make them available to the Department upon request. **(R 336.1205(1), 40 CFR 52.21(d))**
5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period PM10 emission calculations to demonstrate compliance with the limit in SC I.4. The permittee shall keep all required records on file and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21(d))**
6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period PM2.5 emission calculations to demonstrate compliance with the limit in SC I.5. The permittee shall keep all required records on file and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21(d))**
7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period SO2 emission calculations to demonstrate compliance with the limit in SC I.6. The permittee shall keep all required records on file and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21(d))**
8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period individual HAP and total HAP, including fugitive emissions, emission calculations to demonstrate compliance with the limits in SC I.4 and I.5. The permittee shall keep all required records on file and make them available to the Department upon request. **(R 336.1205(1))**
9. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of ethanol and denaturant shipped from the Carbon Green BioEnergy portion of FGFACILITY. 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))**
10. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the amount of ethanol produced at the Carbon Green BioEnergy portion of FGFACILITY. 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. The permittee shall provide written notification of construction and operation for the Carbon Green BioEnergy portion of FGFACILITY to comply with the federal NSPS, 40 CFR 60.7. This notification shall be submitted to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

## **VIII. STACK/VENT RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

NA

### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**APPENDIX A**  
**NO<sub>x</sub> and CO<sub>2</sub>/O<sub>2</sub> Monitoring**  
**Continuous Emission Monitoring System (CEMS) 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.
2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the CEMS 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.
4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
NO <sub>x</sub>	2
CO <sub>2</sub> /O <sub>2</sub>	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 and 3 of Appendix B, 40 CFR Part 60.
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. 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 downtime and corrective action.
  - c) A report of the total operating time of 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 downtime occurred during the reporting period, the permittee shall report that fact.

All monitoring data shall be kept on file for a period of at least five years and made available to the AQD upon request.