

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

August 3, 2023

**PERMIT TO INSTALL
33-23A**

**ISSUED TO
Zoetis, LLC**

**LOCATED AT
2605 East Kilgore Road
Kalamazoo, Michigan 49001**

**IN THE COUNTY OF
Kalamazoo**

**STATE REGISTRATION NUMBER
B7149**

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: June 1, 2023	
DATE PERMIT TO INSTALL APPROVED: August 3, 2023	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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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 _{2e}	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 ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
PM _{2.5}	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 ₂	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))	Flexible Group ID
EUB812WeighA	Building 812 Oral Solid Dosage (OSD) weighing area A. Emissions are exhausted to dust collector DUST4400-2 with HEPA and also vented inside the building in downflow booth with HEPA control.	FGB812OSD
EUB812WeighB	Building 812 Oral Solid Dosage (OSD) weighing area B. Emissions are exhausted to dust collector DUST4400-3 with HEPA and also vented inside the building in downflow booth with HEPA control.	FGB812OSD
EUB812L1Blend	Building 812 OSD Line 1 blending, mechanical processing, and dispensing. Emissions are exhausted through local exhaust ventilation to dust collector DUST4400-2 followed by a HEPA filter.	FGB812OSD
EUB812L1HSG	Building 812 OSD Line 1 high sheer granulation. Emissions are exhausted to dust collector DUST4400-2 followed by a HEPA filter and B812L1HSGHEPA.	FGB812OSD
EUB812L1FBGDAq	Building 812 OSD Line 1 aqueous fluidized bed granulator dryer with associated dry conveyor system. Emissions are exhausted to HEPA air filter AHSP4470-01 and B812L1AQPCSHEPA. Local exhaust ventilation system to DUST4400-2 followed by HEPA.	FGB812OSD
EUB812L1FBGDSol	Building 812 OSD Line 1 solvent fluidized bed granulator dryer with associated dry conveyor system. Emissions are exhausted to HEPA filter AHSP4470-2 followed by the thermal oxidizer and B812L1SOLPCSHEPA. Local exhaust ventilation system to DUST4400-2 followed by HEPA.	FGB812OSD
EUB812TabA	Building 812 OSD tablet compression. Emissions are exhausted to dust collector DUST4400-1 followed by a HEPA filter.	FGB812OSD
EUB812TabB	Building 812 OSD tablet compression. Emissions are exhausted to dust collector DUST4400-1 followed by a HEPA filter.	FGB812OSD
EUB812TabC	Building 812 OSD tablet compression. Emissions are exhausted to dust collector DUST4400-1 followed by a HEPA filter.	FGB812OSD
EUB812L2Blend	Building 812 OSD Line 2 blending, mechanical processing, and dispensing. Emissions are exhausted to DUST4400-3 followed by a HEPA filter	FGB812OSD
EUB812L2HSG	Building 812 OSD Line 2 high sheer granulation. Emissions are exhausted to dust collector DUST4400-3 followed by a HEPA filter and B812L2HSGHEPA.	FGB812OSD
EUB812L2FBGDAq	Building 812 OSD Line 2 aqueous fluidized bed granulator dryer. Emissions are exhausted to HEPA air filter AHSP4473-01. Local exhaust ventilation system to DUST4400-3 followed by HEPA.	FGB812OSD
EUB812HVac	Building 812 house vacuum system. Emissions are exhausted to DUST 7421-1 followed by a HEPA filter.	FGB812OSD

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUB248Pkg18_20	Packaging line located in Building 248. Emissions are exhausted to dust collectors with HEPA venting indoors.	FGB812OSD
EUB248Pkg17	Packaging lines located in Building 248. Emissions are exhausted to HEPA filter venting indoors.	FGB812OSD
EUQAQC	Benchtop-scale QA/QC activities involving sample preparation, liquid chromatography, dissolution, and dissolution cleaning.	FGB812OSD
EUEVAP1	Rinse-water evaporator with capacity of 96 gal/hr controlled by mist eliminator.	FGEVAP
EUEVAP2	Rinse-water evaporator with capacity of 126 gal/hr controlled by mist eliminator.	FGEVAP
EUTANK306	5,000 gallon storage tank for ethanol.	FGETHTANKS
EUTANK307	6,000 gallon storage tank for ethanol.	FGETHTANKS

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.

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
FGB812OSD	The Line 1 and Line 2 OSD manufacturing equipment in Building 812 including the Line 1 and Line 2 fluidized bed granulator dryers.	EUB812WeighA, EUB812WeighB, EUB812L1Blend, EUB812L2Blend, EUB812L1HSG, EUB812L2HSG, EUB812L1FBGDAq, EUB812L1FBGDSol, EUB812L2FBGDAq, EUB812TabA, EUB812TabB, EUB812TabC, EUB248Pkg18_20, EUB248Pkg17, EUB812HVac, EUQAQC
FGEVAP	Two rinse-water evaporators with capacities of 96 and 126 gallons per hour.	EUEVAP1, EUEVAP2
FGETHTANKS	Two ethanol storage tanks.	EUTANK306, EUTANK307

**FGB812OSD
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Line 1 and Line 2 OSD manufacturing equipment in Building 812 including the Line 1 and Line 2 fluidized bed granulator dryers.

Emission Unit: EUB812WeighA, EUB812WeighB, EUB812L1Blend, EUB812L2Blend, EUB812L1HSG, EUB812L2HSG, EUB812L1FBGDAq, EUB812L1FBGDSol, EUB812L2FBGDAq, EUB812TabA, EUB812TabB, EUB812TabC, EUB248Pkg18_20, EUB248Pkg17, EUB812HVac, EUQAQC

POLLUTION CONTROL EQUIPMENT

PM control devices:

- DUST4400-1 (dust collector followed by HEPA filter)
- DUST4400-2 (dust collector followed by HEPA filter)
- DUST4400-3 (dust collector followed by HEPA filter)
- AHSP4470-1 (HEPA filter)
- AHSP4470-2 (HEPA filter)
- AHSP4473-01 (HEPA filter)
- DUST 7421-1
- DUST PACK18_20 (venting indoors)
- DUST PACK17 (venting indoors)
- B812L1AQPCSHEPA
- B812L1SOLPCSHEPA
- B812L1HSGHEPA
- B812L2HSGHEPA

Thermal oxidizer following HEPA on EUB812L1FBGDSol

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	7.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGB812OSD	SC VI.3	R 336.1702(a)
2. VOC	8.0 lb/hr	Hourly	EUB812L1FBGDSol	SC V.1	R 336.1702(a)
3. PM	0.08 lb/hr	Hourly	FGB812OSD	SC V.2	R 336.1225, R 336.1331
4. PM2.5	0.08 lb/hr	Hourly	FGB812OSD	SC V.2	R 336.1225, R 336.1331
5. PM10	0.08 lb/hr	Hourly	FGB812OSD	SC V.2	R 336.1225, R 336.1331

6. Visible emissions from FGB812OSD shall not exceed a six-minute average of zero percent opacity.
(R 336.1301, R 336.1331)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Total solid material processed	145,600 lbs per month ¹	Calendar month	FGB812OSD	SC VI.6	R 336.1225, R 336.1226(a)
2. Total API material processed*	24,400 lbs per month ¹	Calendar month	FGB812OSD	SC VI.6	R 336.1225, R 336.1226(a)
3. Total organic cleaning solvent used	5,600 lbs per year	12-month rolling time period as determined at the end of each calendar month	FGB812OSD	SC VI.2	R 336.1702(a)

* - "API material" refers to materials that are active pharmaceutical ingredients.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall maintain a minimum overall VOC control efficiency of 95 percent across the EUB812L1FBGDSol thermal oxidizer. **(R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall not install the EUB812L1FBGDSol thermal oxidizer until an approvable design analysis demonstrating the thermal oxidizer will attain at least 95 percent VOC control efficiency, with supporting final plans and specifications, has been submitted to the AQD District Supervisor. **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate process equipment in FGB812OSD unless the associated PM control device is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910)**
2. The permittee shall equip and maintain the EUB812L1FBGDSol thermal oxidizer with an instrument to indicate the combustion chamber temperature. **(R 336.1910)**
3. The permittee shall not operate EUB812L1FBGDSol unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum temperature of 1400 F in the combustion chamber, or an alternate temperature approved by the AQD District Supervisor. **(R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor, the permittee shall verify VOC emission rates from EUB812L1FBGDSol 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 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 30 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 336.1702, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

2. Upon request of the AQD District Supervisor, the permittee shall verify PM, PM10, and/or PM2.5 emission rates from EUB812OSD 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 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 30 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 336.1225, R 336.1331, R 336.1902, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a))**
2. The permittee shall keep a record of the amount, in pounds, of organic cleaning solvents used in FGB812OSD during each calendar month and during the 12-month rolling time period ending that month. The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1702(a))**
3. The permittee shall calculate the VOC emission rate from FGB812OSD monthly, for the calendar month and for the 12-month rolling time period ending that month, using emission factors and control efficiencies used in the review of PTI No. 33-23, or an alternate method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1702(a))**
4. The permittee shall continuously monitor, in a satisfactory manner, the combustion chamber temperature in the EUB812L1FBGDSol thermal oxidizer while EUB812L1FBGDSol is operating. Once each shift EUB812L1FBGDSol operates, the permittee shall record, in a satisfactory manner, the combustion chamber temperature while EUB812L1FBGDSol is operating. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702, R 336.1910)**
5. The permittee shall conduct a monthly visible emissions check of the emission control devices listed below during routine operating conditions. For this condition, such checks do not have to be in accordance with Method 9. If a check reveals any visible emissions, the permittee shall inspect the emission control device and perform any maintenance required to eliminate visible emissions. **(R 336.1301, R 336.1910)**
 - a) DUST4400-1
 - b) DUST4400-2
 - c) DUST4400-3
 - d) AHSP4470-1
 - e) AHSP4470-2
 - f) AHSP4473-01
 - g) DUST 7421-1
 - h) B812L1AQPCSHEPA
 - i) B812L1SOLPCSHEPA

- j) B812L1HSGHEPA
- k) B812L2HSGHEPA

6. The permittee shall keep, in a satisfactory manner, all monthly records listed below, as required by SC II.1 and II.2, on file at the facility and make them available to the Department upon request.¹ **(R 336.1225, R 336.1226(a))**
- a) Total material processed in FGB812OSD batches.
 - b) Each API material processed in FGB812OSD batches.
7. The permittee shall keep the design analysis and supporting final plans and specifications for the EUB812L1FBGDSol thermal oxidizer required by SC III.2 on file at the facility for the life of the thermal oxidizer and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUB812L1FBGDSol. **(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. SV-FANE4400-1	20	60	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-FANE4400-2	20	60	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-FANE4400-3	24	60	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-FANE4470-1	20	60	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-FANE4470-2	30 x 30 ^A	20	R 336.1225, 40 CFR 52.21(c) & (d)
6. SV-FAN4473-1	24	60	R 336.1225, 40 CFR 52.21(c) & (d)
7. SV-7421-1	20	60	R 336.1225, 40 CFR 52.21(c) & (d)
8. SV-B812L1HSG (gooseneck)	4	50	R 336.1225, 40 CFR 52.21(c) & (d)
9. SV-B812L2HSG (gooseneck)	4	50	R 336.1225, 40 CFR 52.21(c) & (d)
10. SV-HEPAB812L1QAPCS (gooseneck)	4	50	R 336.1225, 40 CFR 52.21(c) & (d)
11. SV-HEPAB812L1SOLPCS (gooseneck)	4	50	R 336.1225, 40 CFR 52.21(c) & (d)

^A – Or other dimensions with a maximum horizontal cross-section area of 900 square inches.

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGEVAP FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two rinse water evaporators.

Emission Unit: EUEVAP1, EUEVAP2

POLLUTION CONTROL EQUIPMENT

Each evaporator is equipped with a mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.25 lb/hr	Hourly	FGEVAP	SC IV.2	R 336.1331
2. PM2.5	0.26 lb/hr	Hourly	FGEVAP	SC IV.2	R 336.1331
3. PM10	0.26 lb/hr	Hourly	FGEVAP	SC IV.2	R 336.1331
4. VOC	0.65 lb/hr	Hourly	FGEVAP	GC 13	R 336.1702

II. MATERIAL LIMIT(S)

1. The permittee shall only process rinse-water from oral solid dosage equipment with associated defoamer and dilute acid/alkaline cleaners in FGEVAP. **(R 336.1224, R 1225, R 336.1910)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 30 days of permit approval, the permittee shall submit to the AQD District Supervisor, an approvable operation and maintenance plan for each evaporator and associated mist eliminator in FGEVAP. **(R 336.1224, R 1225, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGEVAP unless each evaporator's associated mist eliminator is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 1225, R 336.1331, R 336.1910)**
2. The permittee shall not operate FGEVAP unless a device, which measures the pressure drop across each evaporator's mist eliminator and alarms when the pressure drop falls outside of the range specified in the operation and maintenance plan, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1224, R 1225, 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 maintain a current listing from the manufacturer of the chemical composition of each material processed in FGEVAP, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ (R 336.1224, R 336.1225)

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-EVAP1	10	30	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-EVAP2	10	30	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGETHTANKS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two ethanol storage tanks.

Emission Unit: EUTANK306, EUTANK307

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall store only ethanol in FGETHTANKS.¹ **(R 336.1225)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, R 336.1702(a))**
2. The permittee shall keep records of the throughput of ethanol for each tank in FGETHTANKS for each calendar month and 12-month rolling time period, as determined at the end of each calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall calculate the VOC emission rate from FGETHTANKS monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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