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

October 29, 2024

PERMIT TO INSTALL
120-24

ISSUED TO
Neogen Corporation

LOCATED AT
720 East Shiawassee Street
Lansing, Michigan 48912

IN THE COUNTY OF
Ingham

STATE REGISTRATION NUMBER
P1446

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: **July 11, 2024**	
DATE PERMIT TO INSTALL APPROVED: **October 29, 2024**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

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_2S	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
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_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 conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

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

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

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

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of 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
EUMIXING&CLEAN	A mixing and cleaning area located near the coating lines. Solvent-based adhesives are mixed with additional solvent and/or non-emissive additives prior to application at the coating line. Material application equipment or other parts of the coating/conversion lines will be cleaned as required. The mixing and cleaning area is controlled with an RTO.	FGCOATING
EUBROTHMAKING	The broth (i.e., water-based media) is mixed in a designated area where a mixture of microbial growth media, gum powder, and water is mixed in one of three mixing systems (kettles and impellers). Once mixed, the broth is transferred to steel drum(s) to be coated as water-based media onto the paper or plastic web substrates as part of the plate construction. The broth making includes a duct collection system, controlled with a HEPA filter.	FGCONVERSION
EUCOATING1	One dual-purpose coating line capable of applying either solvent-based adhesives or water-based media to paper or plastic using a slot-fed knife die. The coating line will be followed by a series of steam-heated ovens used to dry adhesives or to dry materials. The coating line is controlled with an RTO during application of solvent-based adhesives. Equipment on the coating lines may be cleaned in-place via manual rag wipe down.	FGCOATING
EUCOATING2	One dual-purpose coating line capable of applying either solvent-based adhesives or water-based media to paper or plastic using a slot-fed knife die. The coating line will be followed by a series of steam-heated ovens used to cure adhesives or to dry materials. The coating line is controlled with an RTO during application of solvent-based adhesives. Equipment on the coating lines may be cleaned in-place via manual rag wipe down.	FGCOATING
EUCONVERSION1	In the enclosed system, the coated paper or plastic passes through fluidized beds of powder. The conversion line is controlled with a HEPA filter.	FGCONVERSION
EUCONVERSION2	In the enclosed system, the coated paper or plastic passes through fluidized beds of powder. The conversion line is controlled with a HEPA filter.	FGCONVERSION

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUDECONTAM1	One ethylene oxide (EtO) decontamination unit used for fumigation and aeration (both processes occur in the same chamber) with associated pre- and post-aeration emissions. The decontamination unit and associated pre- and post-aeration emissions are controlled with a catalytic oxidizer.	FGDECONTAM, FGNESHAPO
EUDECONTAM2	One EtO decontamination unit used for fumigation and aeration (both processes occur in the same chamber) with associated pre- and post-aeration emissions. The decontamination unit and associated pre- and post-aeration emissions are controlled with a catalytic oxidizer.	FGDECONTAM, FGNESHAPO
EUEMENGNE	A 2,069 HP (1,543 kW) diesel-fired emergency engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder.	NA
EUBOILER1	A 4 MMBtu/hr natural gas-fired hot water boiler.	FGNATURALGAS
EUBOILER2	A 4 MMBtu/hr natural gas-fired hot water boiler.	FGNATURALGAS
EUBOILER3	A 13 MMBtu/hr natural gas-fired boiler.	FGBOILERS
EUBOILER4	A 13 MMBtu/hr natural gas-fired boiler.	FGBOILERS
EUWATERHEATER1	A 3 MMBtu/hr natural gas-fired water boiler.	FGNATURALGAS
EUWATERHEATER2	A 3 MMBtu/hr natural gas-fired water boiler.	FGNATURALGAS
EUDEHUMIDIFERS	Seven (7) dehumidifiers with natural gas-burners that have a combined capacity of 5.5 MMBtu/hr.	FGNATURALGAS
EUSPACEHEAT	Multiple natural gas-fired space heaters with a combined capacity of 19 MMBtu/hr.	FGNATURALGAS
EULAB	Bench-scale laboratories containing activities done by people with handheld/bench equipment.	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.

EUEMENGNE
EMISSION UNIT CONDITIONS

DESCRIPTION

Compression ignition (CI) internal combustion engine (ICE) for emergency purposes with a maximum engine power less than or equal to 1,543 kilowatt (kW) (2,069 horsepower (HP)) manufactured after April 1, 2006, subject to 40 CFR Part 60 Subpart IIII-Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The engine generator is used to provide backup power during emergencies and will be operated for routine maintenance checks and readiness testing.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC+NOx	6.4 g/kW-hr	Hourly[A]	EUEMENGNE	SC V.1, SC VI.2, SC VI.3	40 CFR 60.4205(b) and Table 2 to Appendix I of Part 1039, 40 CFR 60.4211
2. CO	3.5 g/kW-hr	Hourly[A]	EUEMENGNE	SC V.1, SC VI.2, SC VI.3	40 CFR 60.4205(b) and Table 2 to Appendix I of Part 1039, 40 CFR 60.4211
3. PM	0.2 g/kW-hr	Hourly[A]	EUEMENGNE	SC V.1, SC VI.2, SC VI.3	40 CFR 60.4205(b) and Table 2 to Appendix I of Part 1039, 40 CFR 60.4211

[A]These emission limits are for certified engines; if testing becomes required to demonstrate compliance, then the tested values must be compared to the Not to Exceed (NTE) requirements determined through 40 CFR 60.4212(c).

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in EUEMENGNE with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 60.4207, 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUEMENGNE for more than 500 hours per year based on a 12-month rolling time period as determined at the end of each calendar month. The 500 hours includes the hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

2. The permittee may operate EUEMENGNE for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent

balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**

3. The permittee may operate EUEMENGNE up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted as part of the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f)(3))**

4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for EUEMENGNE.

   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
   b) Change only those emission-related settings that are permitted by the manufacturer, and
   c) Meet the requirements as specified in 40 CFR 1068, as they apply to the engine.

   If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine. **(40 CFR 60.4211(a) & (c))**

5. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for EUEMENGNE and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUEMENGNE with a non-resettable hours meter to track the operating hours. **(R 336.1225, 40 CFR 60.4209)**

2. The maximum rated power output of EUEMENGNE shall not exceed 1,543 kW (2,069 HP) as certified by the equipment manufacturer. **(R 336.1225, R 336.1702(a), 40 CFR 60.4202, 40 CFR 60.4205, 40 CFR 1039, 40 CFR 1042)**

V. TESTING/SAMPLING

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

1. If EUEMENGNE is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

   a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
   b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212.
   c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years thereafter, whichever comes first, to demonstrate compliance with the applicable emission standards.
   d)

   No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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 60.4211(g)(3), 40 CFR 60.4212)**

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, 40 CFR 52.21 (c) & (d), 40 CFR Part 60, Subpart IIII)**

2. The permittee shall keep, in a satisfactory manner, the following records for EUEMENGNE:

   a) For a certified engine: The permittee shall keep records of the manufacturer certification documentation.
   b) For an uncertified engine: The permittee shall keep records of testing required in SC V.1.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for EUEMENGNE:

   a) For a certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.4.
   b) For an uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.5, and maintenance activities.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

4. The permittee shall monitor and record, the total hours of operation for EUEMENGNE on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for EUEMENGNE, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of EUEMENGNE, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(40 CFR 60.4211, 40 CFR 60.4214)**

5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EUEMENGNE, demonstrating that the fuel meets the requirement of 40 CFR 1090.305. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. **(40 CFR 60.4207(b), 40 CFR 1090.305)**

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 EUEMENGNE. **(R 336.1201(7)(a))**

2. The permittee shall submit a notification specifying whether EUEMENGNE will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR Part 60, Subpart IIII)**

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. SVEMENGNE1	10	15	40 CFR 52.21 (c) & (d) R 336.1225
2. SVEMENGNE2	10	15	40 CFR 52.21 (c) & (d) R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to EUEMENGNE. **(40 CFR Part 60, Subparts A & IIII, 40 CFR 63.6590(c))**

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

EULAB
EMISSION UNIT CONDITIONS

DESCRIPTION

Bench-scale laboratories containing activities done by people with handheld/bench equipment.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	2 tpy	12-month rolling time period as determined at the end of each calendar month	EULAB	SC VI.2	R 336.1205(3), R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

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 the following information on a calendar month basis for EULAB:
   a) Gallons or pounds of each VOC-containing material used.
   b) Where applicable, gallons or pounds of each VOC-containing material reclaimed.
   c) The VOC content, in pounds per gallon or percent by weight, of each material used.
   d) VOC emission calculations determining the monthly emission rate in tons per calendar month.
   e) VOC emission calculations determining the cumulative emission rate during the first 12-months and the annual emission rate thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month.

   (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).

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
FGCOATING	A mixing and cleaning area located near the coating lines and two (2) Petrifilm™ production coating lines, capable of applying either solvent-based adhesives or water-based media to substrate using a slot-fed knife die. The coating lines will be followed by a series of steam-heated ovens used to dry adhesives or to dry materials. The coating lines (when using solvent based adhesives) and mixing area will be controlled with a shared Regenerative Thermal Oxidizer. Equipment on the coating lines may be cleaned in-place via manual rag wipe-down.	EUMIXING&CLEAN, EUCOATING1, EUCOATING2
FGCONVERSION	Three (3) particulate handling emission units each equipped with a HEPA filter particulate control. Two (2) enclosed conversion system, where the coated substrate/plates pass through fluidized beds of powder. One (1) broth mixing area where a mixture of microbial growth media, gum powder, and water is mixed in one of three mixing systems (kettles and impellers).	EUCONVERSION1, EUCONVERSION2, EUBROTHMAKING
FGBOILERS	Two (2) 13 MMBtu/hr natural gas-fired boilers.	EUBOILER3, EUBOILER4
FGNATURALGAS	Collection of natural gas-fired hot water boilers, water heaters, space heaters and dehumidifiers with a combined heat input capacity of 32 MMBtu/hr.	EUBOILER1, EUBOILER2, EUWATERHEATER1, EUWATERHEATER2, EUDEHUMIDIFERS, EUSPACEHEAT
FGDECONTAM	Two EtO decontamination units used for fumigation and aeration (both processes occur in the same chamber) with associated pre- and post-aeration emissions. The decontamination units and associated pre- and post-aeration emissions are controlled with a shared catalytic oxidizer.	EUDECONTAM1, EUDECONTAM2

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGNESHAPO	New Sterilization Chamber Vent (SCV), Group 1 Room Air Emissions and Group 2 Room Air Emissions with an initial startup after April 5, 2024, and facility EtO use is less than 10 tpy and is required to monitor EtO emissions using EtO CEMS. The facility decontamination systems are considered combination sterilization units where the fumigation with EtO and aeration occur within the same chamber (therefore, there is no Chamber Exhaust Vent (CEV) or Aeration room vent (ARV)). The requirements within this flexible group are for a specified EtO usage at least 1 tpy but less than 10 tpy. Group 1 room air emissions mean emissions from indoor EtO storage, EtO dispensing, vacuum pump operations, and pre-aeration handling of sterilized material. Group 2 room air emissions mean emissions from post-aeration handling of sterilized material.	EUDECONTAM1 EUDECONTAM2

FGCOATING
EMISSION UNIT CONDITIONS

DESCRIPTION

A mixing and cleaning area located near the coating lines and two (2) Petrifilm™ production coating lines, capable of applying either solvent-based adhesives or water-based media to substrate using a slot-fed knife die. The coating lines will be followed by a series of steam-heated ovens used to dry adhesives or to dry materials. The coating lines (when using solvent based adhesives) and mixing area will be controlled with a shared Regenerative Thermal Oxidizer. Equipment on the coating lines may be cleaned in-place via manual rag wipe-down.

Emission Unit: EUMIXING&CLEAN, EUCOATING1, EUCOATING2

POLLUTION CONTROL EQUIPMENT

Regenerative Thermal Oxidizer

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	60 tpy	12-month rolling time period as determined at the end of each calendar month	FGCOATING	SC V.1, SC IV.1, SC IV.2, SC IV.3, SC IV.4, SC VI.4	R 336.1205(3), R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGCOATING unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days after the completion of installation of the equipment, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

2. The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1225, R 336.1702(a))**

3. The permittee shall handle all VOC and/or HAP containing materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a))**

4. The permittee shall either maintain a minimum of 0.007 inches of water pressure differential across the enclosure on a 3-hour block average basis or maintain a facial velocity of at least 200 feet per minute through each natural draft opening of the PTE for EUCOATING1, EUCOATING2, and EUMIX&CLEAN on a 3-hour block average basis. **(R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUCOATING1 unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner except while applying and steam heating non-VOC water-based media. Satisfactory operation of the regenerative thermal oxidizer includes a minimum PTE capture efficiency of 100% and a minimum VOC destruction efficiency of 95 percent (by weight), a minimum retention time of 0.5 seconds and maintaining a minimum temperature of 1400 °F until an acceptable performance test has been performed; after which the RTO combustion chamber temperature shall be maintained at or above the temperature established during the most recent control device performance test which demonstrated compliance. **(R 336.1205(3), R 336.1225, R 336.1702, R 336.1910)**

2. The permittee shall not operate EUCOATING2 unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner except while applying and steam heating non-VOC water-based media. Satisfactory operation of the regenerative thermal oxidizer includes a minimum PTE capture efficiency of 100% and a minimum VOC destruction efficiency of 95 percent (by weight), a minimum retention time of 0.5 seconds and maintaining a minimum temperature of 1400 °F until an acceptable performance test has been performed; after which the RTO combustion chamber temperature shall be maintained at or above the temperature established during the most recent control device performance test which demonstrated compliance. **(R 336.1205(3), R 336.1225, R 336.1702, R 336.1910)**

3. The permittee shall not operate EUMIX&CLEAN unless the regenerative thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the regenerative thermal oxidizer includes a minimum PTE capture efficiency of 100% and a minimum VOC destruction efficiency of 95 percent (by weight), a minimum retention time of 0.5 seconds and maintaining a minimum temperature of 1400 °F until an acceptable performance test has been performed; after which the RTO combustion chamber temperature shall be maintained at or above the temperature established during the most recent control device performance test which demonstrated compliance. **(R 336.1225, R 336.1702, R 336.1910)**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the regenerative thermal oxidizer to monitor and record the temperature, on a continuous basis, during operation of the RTO. **(R 336.1225, R 336.1702)**

5. The permittee shall not operate EUMIX&CLEAN unless the PTE is installed, maintained and operated in a satisfactory manner as specified in SC III.4. Satisfactory operation requires the following:
   a) The direction of the air flow at all times must be into the enclosure; and either
   b) A device to measure the facial velocity air through all natural draft openings in the enclosure. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
   c) A device to measure the pressure drop across the enclosure. The pressure drop across the enclosure must be at least 0.007 inch H_2O.

   (R 336.1702(a), R 336.1910)

6. The permittee shall not operate EUCOATING1 except while applying and steam heating non-VOC water-based media unless the PTE is installed, maintained and operated in a satisfactory manner as specified in SC III.4. Satisfactory operation requires the following:
   a) The direction of the air flow at all times must be into the enclosure; and either
   b) A device to measure the facial velocity air through all natural draft openings in the enclosure. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
   c) A device to measure the pressure drop across the enclosure. The pressure drop across the enclosure must be at least 0.007 inch H_2O.

   (R 336.1702(a), R 336.1910)

7. The permittee shall not operate EUCOATING2 except while applying and steam heating non-VOC water-based media unless the PTE is installed, maintained and operated in a satisfactory manner as specified in SC III.4. Satisfactory operation requires the following:
   a) The direction of the air flow at all times must be into the enclosure; and either
   b) A device to measure the facial velocity air through all natural draft openings in the enclosure. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or
   c) A device to measure the pressure drop across the enclosure. The pressure drop across the enclosure must be at least 0.007 inch H_2O.

   (R 336.1702(a), R 336.1910)

8. The heat input capacity of the RTO natural gas-fired burner in FGCOATING shall not exceed 11 MMBTU per hour. **(R 336.1702(a), 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

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

1. The permittee shall determine the VOC content, water content, and density of any material as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

2. Within 180 days after commencement of trial operation of whichever comes first EUCOATING1 or EUCOATING2 using solvent based adhesive, and at least once every 5 years thereafter, the permittee shall verify the destruction efficiency of the regenerative thermal oxidizer 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 60 Appendix A for destruction efficiency. 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(a), 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 continuously monitor and record the temperature in the combustion chamber of the regenerative thermal oxidizer during operation of the RTO. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall

keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of 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 and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**

4. The permittee shall keep the following information on a calendar month basis for FGCOATING:
   a) Gallons or pounds of each VOC-containing material used.
   b) Where applicable, gallons or pounds of each VOC-containing material reclaimed.
   c) The VOC content, in pounds per gallon or percent by weight, of each material used.
   d) VOC emission calculations determining the monthly emission rate in tons per calendar month.
   e) VOC emission calculations determining the cumulative emission rate during the first 12-months and the annual emission rate thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month.

   (R 336.1225, R 336.1702(a))

5. The permittee shall keep the following information on a daily basis for each EUCOATING1 and EUCOATING2:
   a) The date, start and end times of when the coating line is set up to coat solvent-based adhesives or non-VOC water based media.
   b) The date, start and end times when the RTO is operating.

   (R 336.1225, R 336.1702(a))

6. The permittee shall keep, in a satisfactory manner, a log of all RTO maintenance and repair activities, according to the MAP, SC III.1. 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), R 336.1910, R 336.1911)**

7. The permittee shall conduct bypass monitoring for each bypass line such that the valve or closure method cannot be operated without creating a timestamped record for when the coating lines are set up to coat solvent-based adhesives and the bypass valve is open and closed. The permittee shall be kept all records on file at the facility and make them available to the Department upon request. **(R 336.1702, R 336.1910)**

8. The permittee shall keep records of maintenance inspections which include the dates, results of the inspections and the dates and reasons for repairs if made. The following items shall be inspected for the RTO control device used to demonstrate compliance with the applicable VOC emission limits:
   a) Validation of thermocouple accuracy or recalibration of each temperature thermocouple a minimum of once every 12 months. The thermocouple can be replaced in lieu of validation.
   b) Perform a heat exchange/heat transfer media inspection a minimum of once every 18 months.
   c) Perform an inspection of the valve seals condition and verify valve timing/synchronization a minimum of once every 18 months.

   The requirement to address these items is also satisfied if a destruction efficiency test has been performed on the control device within the prior 18-month period. All records shall be kept on file and made available to the Department upon request. **(R 336.1910, R 336.1911)**

9. The permittee shall monitor and record, in a satisfactory manner, the following for each PTE:
   a) The direction of air flow into the PTE at all times; and either
   b) The facial velocity of air flow through all natural draft openings at or above the facial velocity limit; or
   c) The pressure drop at or above the pressure drop limit.

   Data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep records of the 3-hour block average of the facial velocity or pressure drop. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702)**

10. The permittee shall keep manufacturer documentation showing the maximum heat input for the RTO unit in FGCOATING. **(R 336.1702(a), 40 CFR 52.21(c) and (d))**

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 EUCOATING1 and EUCOATING2. **(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. SVRTO	80	80	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).

FGCONVERSION
EMISSION UNIT CONDITIONS

DESCRIPTION

Three (3) particulate handling emission units each equipped with a HEPA filter particulate control. Two (2) enclosed conversion system, where the coated substrate/plates pass through fluidized beds of powder. One (1) broth mixing area where a mixture of microbial growth media, gum powder, and water is mixed in one of three mixing systems (kettles and impellers).

Emission Unit: EUCONVERSION1, EUCONVERSION2, EUBROTHMAKING

POLLUTION CONTROL EQUIPMENT

HEPA Filter 1 controls EUBROTHMAKING.
HEPA Filter 2 controls EUCONVERSION1.
HEPA Filter 3 controls EUCONVERSION2.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGCONVERSION unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days after the completion of installation of the equipment, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUBROTHMAKING unless the respective HEPA filter is installed, maintained, and operated in a satisfactory manner. Satisfactory operation and maintenance include following the procedures outlined in the MAP. **(R 336.1205, R 336.1910, 40 CFR 52.21(c) and (d))**

2. The permittee shall not operate EUCONVERSION1 unless the respective HEPA filter is installed, maintained, and operated in a satisfactory manner. Satisfactory operation and maintenance include following the procedures outlined in the MAP. **(R 336.1205, R 336.1910, 40 CFR 52.21(c) and (d))**

3. The permittee shall not operate EUCONVERSION2 unless the respective HEPA filter is installed, maintained, and operated in a satisfactory manner. Satisfactory operation and maintenance include following the procedures outlined in the MAP. **(R 336.1205, R 336.1910, 40 CFR 52.21(c) and (d))**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the pressure drop from HEPA Filter 1, HEPA Filter 2, and HEPA Filter 3 on a continuous basis. **(R 336.1205, R 336.1910, 40 CFR 52.21)**

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 monitor and record, in a satisfactory manner, the pressure drop from HEPA Filter 1, HEPA Filter 2, and HEPA Filter 3 on a continuous basis. **(R 336.1205, R 336.1331(c), R 336.1910, 40 CFR 52.21(c) & (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBROTHMAKING *	14	6	40 CFR 52.21(c) & (d)
2. SVCONVERSION1 *	14	6	40 CFR 52.21(c) & (d)
3. SVCONVERSION2 *	14	6	40 CFR 52.21(c) & (d)

*Each collector is equipped with a rain cap

IX. OTHER REQUIREMENT(S)

NA

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

FGBOILERS
EMISSION UNIT CONDITIONS

DESCRIPTION

Two (2) 13 MMBtu/hr natural gas-fired boilers.

Emission Unit: EUBOILER3, EUBOILER4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMITS

1. The permittee shall burn only natural gas in FGBOILERS. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 63.11195(e))**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The combined maximum design heat input capacity for FGBOILERS shall not exceed 26 MMBtu per hour on a fuel heat input basis. **(R 336.1205)**

2. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor and record the fuel usage rate for FGBOILERS.. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.48c(g))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep monthly natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas used, in cubic feet, on a calendar month basis, and a 12-month rolling time period basis for each boiler. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, 40 CFR 52.21(c) & (d)), 40 CFR 60.48c(g))**

3. The permittee shall maintain records of information necessary for all required notifications and reports for each boiler within FGBOILERS, including the following:
   a) Monitoring data;
   b) Verification of heat input capacity required to show compliance with SC IV.1;

c) Identification, type and the amounts of fuel combusted in each boiler within FGBOILERS on a calendar month basis;
d) All records required by 40 CFR 60.7, 60.48c

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a),40 CFR 60.7(f))**

VII. REPORTING

1. The permittee shall provide written notification of the date construction commences and actual startup of each boiler within FGBOILERS, in accordance with 40 CFR 60.7 and 60.48c. The notification shall include the design heat input, an identification of the fuels to be combusted and the annual capacity factor for each boiler within FGBOILERS. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7, 40 CFR 60.48c)**

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

VIII. STACK/VENT RESTRICTIONS

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

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER3	22	59	40 CFR 52.21(c) & (d)
2. SVBOILER4	22	59	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

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

FGNATURALGAS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Collection of natural gas-fired hot water boilers, water heaters, space heaters and dehumidifiers with a combined heat input capacity of 32 MMBtu/hr.

Emission Units: EUBOILER1, EUBOILER2, EUWATERHEATER1, EUWATERHEATER2, EUDEHIMIDIFIERS, EUSPACEHEAT

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in FGNATURALGAS. **(R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The combined heat input capacity of FGNATURALGAS shall not exceed 32 MMBTU per hour. **(R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d))**

2. The heat input capacity of any individual natural gas-fired boiler within FGNATURALGAS shall not exceed 10 MMBTU per hour. **(R 336.1205)**

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 manufacturer documentation showing the maximum heat input for each emission unit in FGNATURALGAS. **(R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVWHF1 (EUWATERHEATER1)	10	59	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVWHF2 (EUWATERHEATER2)	10	59	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVWHW1 (EUBOILER1)	12	59	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVHWH2 (EUBOILER2)	12	59	R 336.1225, 40 CFR 52.21(c) & (d)
5. SVDHU1 (DEHUMIDIFER 1)	27[a]	64	R 336.1225, 40 CFR 52.21(c) & (d)
6. SVDHU2 (DEHUMIDIFER 2)	27[a]	64	R 336.1225, 40 CFR 52.21(c) & (d)
7. SVDHU3 (DEHUMIDIFER 3)	23[a]	64	R 336.1225, 40 CFR 52.21(c) & (d)
8. SVDHU4 (DEHUMIDIFER 4)	23[a]	60	R 336.1225, 40 CFR 52.21(c) & (d)
9. SVDHU6 (DEHUMIDIFER 6)	23[a]	61	R 336.1225, 40 CFR 52.21(c) & (d)
10. SVDHU7 (DEHUMIDIFER 7)	14[a]	59	R 336.1225, 40 CFR 52.21(c) & (d)
11. SVDHU8 (DEHUMIDIFER 8)	14[a]	27	R 336.1225, 40 CFR 52.21(c) & (d)

[a] The diameter is the equivalent diameter

IX. OTHER REQUIREMENT(S)

NA

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

FGDECONTAM
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two EtO decontamination units used for fumigation with associated pre- and post-aeration emissions. The decontamination units and associated pre- and post-aeration emissions are controlled with a shared catalytic oxidizer.

Emission Unit: EUDECONTAM1, EUDECONTAM2

POLLUTION CONTROL EQUIPMENT

Catalytic Oxidizer

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	3E-3 pph	Rolling 30-operating day average	FGDECONTAM	SC IV.1, SC VI.3	R 336.1702(a)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGDECONTAM unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days after the completion of installation of the equipment, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGDECONTAM unless the catalytic oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control

device in accordance with an approved MAP for FGDECONTAM as required in SC III.1. **(R 336.1205, R 336.1702, R 336.1910)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner to the AQD District Supervisor, a device to monitor and record the EtO emissions from FGDECONTAM, on a continuous basis. **(R 336.1205, R 336.1702)**

3. The heat input capacity of the catalytic oxidizer natural gas-fired burner in FGDECONTAM shall not exceed 0.5 MMBTU per hour. **(R 336.1702(a), 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1702)**

2. The permittee shall keep, in a satisfactory manner, all records related to, or as required by the MAP. **(R 336.1205, R 336.1702, R 336.1910, R 336.1911)**

3. The permittee shall continuously monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the EtO emissions and flow from FGDECONTAM. The permittee shall operate the Continuous Emission Rate Monitoring System (CEMS) / (CERMS) to meet the timelines, requirements and reporting detailed in Appendix A and shall use the CEMS / CERMS data for determining compliance with SC I.1. **(R 336.1205, R 336.1702)**

4. The permittee shall keep manufacturer documentation showing the maximum heat input for the catalytic oxidizer in FGDECONTAM. **(R 336.1702(a), 40 CFR 52.21(c) and (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCATOX	10	80	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and O. **(40 CFR Part 63, Subparts A and O)**

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

FGNESHAPO
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

New Sterilization Chamber Vent (SCV), Group 1 Room Air Emissions and Group 2 Room Air Emissions with an initial startup after April 5, 2024, and facility EtO use is less than 10 tpy and is required to monitor EtO emissions using EtO CEMS. The facility decontamination systems are considered combination sterilization units where the fumigation with EtO and aeration occur within the same chamber (therefore, there is no Chamber Exhaust Vent (CEV)). The requirements within this flexible group are for a specified EtO usage at least 1 tpy but less than 10 tpy.

Group 1 room air emissions mean emissions from indoor EtO storage, EtO dispensing, vacuum pump operations, and pre-aeration handling of sterilized material.
Group 2 room air emissions mean emissions from post-aeration handling of sterilized material.

Emission Unit: EUDECONTAM1, EUDECONTAM2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. EtO	Continuously reduce EtO emissions by 99.8 percent[A]	Previous 30 operating days of data	SCV	SC VI.3, SC VI.5	R 336.1940, 40 CFR 63.362(c), Table 1 of 40 CFR Part 63, Subpart O
2. EtO	Continuously reduce EtO emissions by 80 percent[B]	Rolling 30-operating day average	Group 1 Room Air Emissions	SC VI.3, SC VI.5, SC VI.7	R 336.1940, 40 CFR 63.362(f), 40 CFR 63.362(i)(2) Table 4 of 40 CFR Part 63, Subpart O
3. EtO	Continuously reduce EtO emissions by 80 percent[C]	Rolling 30-operating day average	Group 2 Room Air Emissions	SC VI.3, SC VI.5, SC VI.7	R 336.1940, 40 CFR 63.362(f), 40 CFR 63.362(i)(2) Table 5 of 40 CFR Part 63, Subpart O
4. EtO	Continuously reduce EtO emissions by 99.8 percent[B, D]	Rolling 30-operating day average	Group 1 Room Air Emissions	SC VI.3, SC VI.5, SC VI.7	R 336.1940, 40 CFR 63.362(f), 40 CFR 63.362(i)(1) Table 4 of 40 CFR Part 63, Subpart O
5. EtO	Continuously reduce EtO emissions by 99.8 percent[C, D]	Rolling 30-operating day average	Group 2 Room Air Emissions	SC VI.3, SC VI.5, SC VI.7	R 336.1940, 40 CFR 63.362(f), 40 CFR 63.362(i)(1) Table 5 of 40 CFR Part 63, Subpart O

[A] The standard applies if the facility is expected to meet or exceed specified EtO use within one year after startup. Afterwards, the standard applies if the facility has met or exceeded the specified EtO use within any consecutive 12-month period after startup.

[B] The standard applies if the facility is not expected to meet or exceed 40 tpy of EtO use within one year after startup. Afterwards, the standard applies if the facility has used less than 40 tpy of EtO within all consecutive 12-month periods after startup.
[C] The standard applies if the facility is not expected to meet or exceed 20 tpy of EtO use within one year after startup. Afterwards, the standard applies if the facility has used less than 20 tpy of EtO within all consecutive 12-month periods after startup.
[D] The standard applies to monitoring after emission streams are combined when the emission limitation is determined by applying the most stringent emission reduction standard to the 30-operating day rolling sum of the inlet mass.

II. MATERIAL LIMIT(S)

1. The facility EtO usage must be less than 10 tpy. **(R 336.1940, 40 CFR 63.362(c), Table 1 of 40 CFR Part 63, Subpart O)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must meet the standards in 40 CFR 63.362(c), (f), (g), and (h) at all times. **(R 336.1940, 40 CFR 63.362(b))**

2. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(R 336.1940, 40 CFR 63.362(k))**

3. The permittee must comply with 40 CFR 63.364(f), (g), and (i). **(R 336.1940, 40 CFR 63.364(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must operate all areas of the facility that contain Group 1 Room Air Emissions with a permanent total enclosure (PTE) with all exhaust gas streams being captured and routed to a control system. **(R 336.1940, 40 CFR Part 63, Subpart O, Table 4.4(d))**

2. The permittee must operate all areas of the facility that contain Group 2 Room Air Emissions with a PTE with all exhaust gas streams being captured and routed to a control system. **(R 336.1940, 40 CFR Part 63, Subpart O, Table 5.4(d))**

V. TESTING/SAMPLING

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

1. The permittee must demonstrate initial compliance with an emission standard using a CEMS that measures HAP concentrations directly (i.e., an EtO CEMS). The initial performance test must consist of the first 30 operating days after the certification of the CEMS according to Performance Standard 19 in Appendix B of 40 CFR Part 60. The permittee must follow the procedures in Appendix A of 40 CFR Part 63 Subpart O. **(R 336.1940, 40 CFR 63.363(b))**
   a) The CEMS performance test must demonstrate compliance with the applicable EtO Standards in Table 1 through 5 to 40 Part 63 Subpart O. Alternatively, the CEMS performance test may demonstrate compliance with 40 CFR 63.362(i) or (j).
      i) The permittee may time-share the CEMS among different measurement points provided that:
         1) The measurement points are approximately equidistant from the CEMS;
         2) The sample time at each measurement point is at least 3 times as long as the CEMS response time;

3) The CEMS completes at least one complete cycle of operation for each shared measurement point within a 15-minute period; and
4) The CEMS meets the other requirements of Performance Specification (PS) 19.

ii) The permittee must collect hourly data from auxiliary monitoring systems during the performance test period, to convert the pollutant concentrations to pounds per hour.

2. The permittee must follow the applicable procedures for initial compliance in 40 CFR 63.365(f)(1) through (3), as applicable, during the initial compliance demonstration or during the initial certification of the CEMS tests. **(R 336.1940, 40 CFR 63.365(f))**

3. The permittee must demonstrate initial procedures in 40 CFR 63.365(f) and continued compliance with the provisions in 40 CFR 63.364(g). The permittee must follow the requirements of either 40 CFR 63.364(g)(2) and (3) or 40 CFR 63.364(g)(4). **(R 336.1940, 40 CFR 63.364(g)(1))**

4. Room air emissions for which numerical limits are prescribed must be captured and routed under negative pressure to a control system. The permittee may assume the capture system efficiency is 100 percent if both conditions below are met: **(R 336.1940, 40 CFR 63.362(h))**
   a) The capture system meets the criteria in Method 204 of Appendix M to 40 CFR Part 51 for a PTE and directs all the exhaust gasses from the enclosure to an add-on control system.
   b) All sterilization operations creating exhaust gases for which the compliance demonstration is applicable are contained within the capture system.

VI. MONITORING/RECORDKEEPING

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

1. The permittee must comply with the monitoring requirements in 40 CFR 63.8, according to the applicability in Table 6 of 40 CFR Part 63 Subpart O. **(R 336.1940, 40 CFR 63.364(a)(1))**

2. The permittee must keep written procedures required by 40 CFR 63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the permittee must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2). **(R 336.1940, 40 CFR 63.364(a)(5))**

3. The permittee must demonstrate continuous compliance with the applicable emission standard(s) using an EtO CEMS, including a shared EtO CEMS, installed and operated in accordance with the requirements of Performance Specification 19 in Appendix B and Procedure 7 in Appendix F to 40 CFR Part 60. **(R 336.1940, 40 CFR 63.363(a))**

4. The permittee must install and operate an EtO CEMS on each outlet for the control system in accordance with the requirements of Appendix A to 40 Part 63 Subpart O. The permittee must also conduct monitoring for each inlet to the control system that is used to demonstrate compliance with the emission reduction standard in accordance with the requirements of Appendix A to 40 CFR Part 63 Subpart O, with the exception for SCV emission streams to the control system. **(R 336.1940, 40 CFR 63.364(f))**

5. The permittee must monitor and record on a daily basis the daily and 30-operating day EtO usage according to the following requirements:
   a) Monitor and record on a daily basis, the daily total mass of ethylene oxide, in pounds, used at the facility. The daily total mass must be determined using the methodology specified in 40 CFR 63.365(c)(1)(i) and (ii).
   b) Determine and record daily the 30-operating day rolling ethylene oxide usage rate using equation 6 to 40 CFR 63.364(i)(2).
   c) Determine and record the total mass of EtO used in each calendar month.

   The permittee must record EtO usage for each calendar month. **(R 336.1940, 40 CFR 63.364(i))**

6. If the emission streams does not consist only of an SCV(s), the following procedures shall be used to determine initial compliance with the emission limits under 40 CFR 63.362(d) through 40 CFR 63.362(g), as applicable: **(R 336.1940, 40 CFR 63.363(f))**
   a) If the permittee is required to operate any portion of the facility under PTE, the permittee must initially demonstrate that the PTE meets the requirements of Method 204 of 40 CFR part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control system or stack(s). The permittee must also meet the following (i) and either (ii) or (iii):
      i) Maintain direction of the airflow into the enclosure at all times,
      ii) Establish as an operating limit the minimum volumetric flow rate through the affected stack using the procedures described in 40 CFR 63.365(f)(3); or
      iii) Install, operate, calibrate, and maintain a continuous pressure differential monitoring system using the procedures described in 40 CFR 63.364(g)(4).

7. When streams from two or more emission sources are combined, the permittee must demonstrate compliance by either the approach specified in 40 CFR 63.362(i)(1) or the approach specified in 40 CFR 63.362(i)(2) in lieu of the applicable standards in 40 CFR 63.362(c) through (g) for the affected source. The combined emission stream limit is based on as 30-operating day rolling sum. In order to elect to comply with a combined emission streams limit, the permittee must use a CEMS on each exhaust stack at the facility to determine compliance. **(R 336.1940, 40 CFR 63.362(i))**

VII. REPORTING

1. The owner or operator of an affected source subject to the emissions standards in 40 CFR 63.362 must fulfill all reporting requirements in 40 CFR 63.10(a), (d), (e), and (f), according to the applicability in table 6 to 40 CFR Part 63 Subpart O. These reports will be made to the Administrator at the appropriate address identified in 40 CFR 63.13 or submitted electronically. **(R 336.1940, 40 CFR 63.366(a))**

2. The permittee must submit an initial compliance report that provides summary, monitoring system performance, and deviation information to the Administrator on April 5, 2027, or once the report template for 40 CFR Part 63 Subpart O has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website for one year, whichever date is later, to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice to the permittee. Do not use CEDRI to submit information the permittee claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed CBI. The permittee must use the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 40 CFR Part 63 Subpart O. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in 40 CFR Part 63 Subpart O, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if the permittee wish to assert a CBI claim, submit a complete report, including information claimed to be CBI, to the EPA. The CBI report must be generated using the appropriate form on the CEDRI website or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website. Submit the CBI file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Commercial Sterilization Facilities Sector Lead, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. Reports of deviations from an operating limit shall include all information required in 40 CFR 63.10(c)(5) through (13), as applicable in table 6 in 40 CFR Part 63 Subpart O, along with information from any calibration tests in which the monitoring equipment is not in compliance with Performance Specification 19 in appendix B and Procedure 7 in appendix F to 40 CFR Part 60 or the method used for parameter monitoring device calibration. Reports shall also include the name, title, and signature of the responsible official who is certifying the accuracy of the report. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement. When no deviations have occurred or monitoring equipment has not been inoperative, repaired, or adjusted, such information shall be stated in the report. In addition, the summary report shall include: **(R 336.1940, 40 CFR 63.366(b))**

a) The following information:
   i) Date that facility commenced construction or reconstruction;
   ii) Hours of commercial sterilization operation over the previous 12 months; and
   iii) Monthly EtO use, in tons, over the previous 36 months.
   iv) If the permittee is electing to determine the mass of EtO sent to the control device from the SCV(s) via the procedure in 40 CFR 63.364(f)(1)(i), the permittee must report the daily EtO use from each applicable chamber for the previous 7 months.
   v) An indication if the permittee is required to comply with one or more combined emission stream limitations. If so, indicate the affected sources that are included in each combined emission stream limitation.
   vi) An indication if the permittee is electing to comply with a site-wide emission limit. If the permittee is electing to comply with a site-wide emission limit, report the daily EtO use over the previous 7 months.

b) The permittee must report the following for each sterilization chamber at the facility:
   i) The sterilization chamber ID;
   ii) The ID of the control system that the SCV was routed to, if applicable;
   iii) The portion of SCV exhaust that was routed to the control system, if applicable;
   iv) The ID of the EtO CEMS that was used to monitor SCV emissions, if applicable;
   v) The portion of SCV exhaust that was monitored with the EtO CEMS, if applicable;
   vi) The ID of the control system that the CEV was routed to, if applicable;
   vii) The portion of CEV exhaust that was routed to the control system, if applicable;
   viii) The ID of the EtO CEMS that was used to monitor CEV emissions, if applicable;
   ix) The portion of CEV exhaust that was monitored with the EtO CEMS, if applicable;

c) If emissions from any room in the facility are subject to an emission standard, the permittee must report the following for each room where there is the potential for EtO emissions:
   i) Room ID;
   ii) Documentation of emissions occurring within the room, including aeration, EtO storage, EtO dispensing, pre-aeration handling of sterilized material, and post-aeration handling of sterilized material;
   iii) The ID of the control system that the room air was routed to, if applicable;
   iv) The portion of room air that was routed to the control system, if applicable;
   v) The ID of the EtO CEMS that was used to monitor room air emissions, if applicable;
   vi) The portion of room air that was monitored with the EtO CEMS, if applicable;

d) If an EtO CEMS was used to demonstrate continuous compliance with an emission standard for more than 30-operating days, the permittee must report the following:
   i) The information specified in section 11 of appendix A to 40 CFR Part 63 Subpart O.
   ii) The affected sources that are included in each inlet that is being monitored with EtO CEMS;
   iii) The IDs of each inlet(s) to and outlet(s) from each control system.
   iv) The daily sum of EtO for each inlet, along with 30-operating day rolling sums.
   v) The daily sum of EtO emissions from each outlet of the control system, along with 30-operating day rolling sums.
   vi) For each day, calculate and report the daily mass emission limit that the control system must achieve based on the previous 30 days of data. For control systems with multiple emission streams, and complying with a combined emission stream limitation in § 63.362(i) or a SWEL in § 63.362(j), report the daily 30-operating day mass emission limit as determined in accordance with CES in § 63.362(i)(1)(i) and (i)(2)(i) or with § 63.362(j)(1)(i) and (j)(2)(i), as applicable.
   vii) For each day, the mass of EtO emitted from the control system over the previous 30 operating days.

e) If any portion of the facility is required to be operated with PTE, the permittee must report the following:
   i) If the permittee is choosing to demonstrate continuous compliance through the use of volumetric flow rate monitoring, the permittee must report the 3-hr rolling average, rolled hourly volumetric flow from each outlet where air from the PTE is sent, in cubic feet per second.
   ii) If the permittee is choosing to demonstrate continuous compliance through use of differential pressure monitoring, the permittee must report the 3-hr rolling average, rolled hourly pressure differential reading, in inches water.

f) Report the number of deviations to meet an applicable standard. For each instance, report the date, time, the cause and duration of each deviation. For each deviation the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to determine the emissions.

3. The permittee must submit compliance reports that provide summary, monitoring system performance, and deviation information to the Administrator within 30 days following the end of each calendar quarter. Beginning on April 5, 2027, or once the report template for 40 CFR Part 63 Subpart O has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website for 1 year, whichever date is later, submit all subsequent reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice to the permittee. Do not use CEDRI to submit information the permittee claims as CBI. Anything submitted using CEDRI cannot later be claimed CBI. The permittee must use the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 40 CFR Part 63 Subpart O. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in 40 CFR Part 63 Subpart O, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if the permittee wishes to assert a CBI claim, submit a complete report, including information claimed to be CBI, to the EPA. The CBI report must be generated using the appropriate form on the CEDRI website or an alternate electronic file consistent with the XML schema listed on the CEDRI website. Submit the CBI file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Commercial Sterilization Facilities Sector Lead, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Reports of deviations from an operating limit shall include all information required in 40 CFR 63.10(c)(5) through (13), as applicable in table 6 to 40 CFR Part 63 Subpart O, and information from any calibration tests in which the monitoring equipment is not in compliance with Performance Specification 19 in appendix B and Procedure 7 in appendix F to 40 CFR part 60 or the method used for parameter monitoring device calibration. Reports shall also include the name, title, and signature of the responsible official who is certifying the accuracy of the report. If the report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement. When no deviations have occurred or monitoring equipment has not been inoperative, repaired, or adjusted, such information shall be stated in the report. In addition, the summary report shall include: **(R 336.1940, 40 CFR 63.366(c))**
   a) The information listed in 40 CFR 63.366(b)(1)(i) through (vi), with the exception that monthly EtO use, in tons, only needs reported for the previous 12 months;
   b) The permittee must report the ID for any sterilization chamber that has not operated since then end of the period covered by the previous compliance report. If a sterilization chamber has commenced operation since the end of the period covered by the previous compliance report, or if any of the information in 40 CFR 63.366(b)(3)(i) through (ix) has changed for a sterilization chamber that was included in the previous compliance report, the permittee must report the information in 40 CFR 63.366(b)(3)(i) through (ix) for those sterilization chambers;
   c) If emissions from any room in the facility are subject to an emission standard, the permittee must report the ID for any room where there has not been the potential for EtO emissions since the end of the period covered by the previous compliance report. If a room has had the potential for EtO emissions since the end of the period covered by the previous compliance report, or if any of the information in 40 CFR 63.366(b)(4)(i) through (vi) has changed for a room where there is the potential for EtO emissions that was included in the previous compliance report, the permittee must report the information in 40 CFR 63.366(b)(4)(i) through (vi) for those rooms;
   d) If an EtO CEMS was used to demonstrate continuous compliance, the permittee must report the information specified in 40 CFR 63.366(b)(5)(i) through (vi).
   e) If any portion of the facility is required to be operated with PTE, the permittee must report the information listed in 40 CFR 63.366(b)(6).
   f) Report the number of deviations to meet an applicable standard. For each instance, report the date, time, the cause, and duration of each deviation. For each deviation, the report must include a list of the affected sources or equipment, the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to determine the emissions.

4. The owner or operator of an affected source subject to an emission standard in 40 CFR 63.362 shall fulfill all notification requirements in 40 CFR 63.9, according to the applicability in Table 6 in 40 CFR Part 63 Subpart O and in 40 CFR 63.366(e). (**R 336.1940, 40 CFR 63.366(e))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and O. **(R 336.1940, 40 CFR Part 63, Subparts A and O)**

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

FGFACILITY CONDITIONS

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

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing/ Monitoring Method	Underlying Applicable Requirements
1. Individual HAP	Less than 8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)
2. Aggregate HAPs	Less than 22.4 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(3)

II. MATERIAL LIMIT(S)

NA

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))**

1. The permittee shall determine the HAP content of any material, as received and as applied, using manufacturer's formulation data. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**

2. The permittee shall keep the following information on a calendar month basis for FGFACILITY:
   a) Gallons or pounds of each HAP containing material used.
   b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
   c) HAP content, in pounds per gallon or percent by weight, of each HAP containing material used.
   d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
   e) Individual and aggregate HAP emission calculations determining the cumulative emission rate of each during the first 12-months and the annual emission rate of each thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(3))**

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).

APPENDIX A
Ethylene Oxide Monitoring
Continuous Emission Monitoring System (CEMS)

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 120 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 Performance Specification (PS) 19.

Pollutant	Applicable PS
CEMS	19

5. The span value shall be approximately 2 times the EtO concentration equivalent to the emission standard.
6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 19 of Appendix B to 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 limit 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 the FGDECONTAM 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.

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