State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL
LAKE COUNTY
Application No: 02-16894

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
40 CFR, Part 63, Subpart O	**MACT**
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 4/15/2003

STERIS Corporation
Doug Freund
5960 Heisley Rd
Mentor, OH 44060

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: **USEPA** **NEDO**
Lake County GHD

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 4/15/2003**
Terms and Conditions	**Effective Date: 4/15/2003**

FINAL PERMIT TO INSTALL 02-16894

Application Number:	02-16894
APS Premise Number:	0243081344
Permit Fee:	**$600**
Name of Facility:	STERIS Corporation
Person to Contact:	Doug Freund
Address:	5960 Heisley Rd Mentor, OH 44060

Location of proposed air contaminant source(s) [emissions unit(s)]:
5914 Heisley Rd
Mentor, **Ohio**

Description of proposed emissions unit(s):
6 sterilization units.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may

be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and

conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
OC	0.13

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001 (Eagle 3017 Units 1 and 2) - Sterilization process using two sterilizers and one aerator. Organic compound (OC) emissions shall be controlled by an Ethylene oxide disposer (catalytic oxidizer).	OAC rule 3745-31-05(A)(3)	Emissions of OC as ethylene oxide shall not exceed 0.01 lb/hour and 0.044 ton/year.
	OAC rule 3745-21-07(G)(2)	None. See A.2.a below.
	40 CFR, Part 63, Subpart O	None. See A.2.b below.

2. Additional Terms and Conditions

2.a This emissions unit employs OC (ethylene oxide) in a gaseous state and, therefore, is not subject to the requirements of OAC rule 3745-21-07(G)(2).

2.b Sterilization sources using less than 1 ton of ethylene oxide within all consecutive 12-month periods after December 6, 1996, are not subject to the emissions standards in Section 63.362 of 40 CFR, Part 63, Subpart O.

B. Operational Restrictions

1. The maximum annual ethylene oxide usage for emissions units P001, P002 and P003, combined, shall be less than 1 ton, based upon a rolling, 12-month summation of ethylene oxide usage figures.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the ethylene oxide usage levels specified in the following table for P001, P002 and P003, combined:

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Month(s)	Maximum Allowable Cumulative Ethylene Oxide Usage
1	167 pounds
1-2	333 pounds
1-3	500 pounds
1-4	667 pounds
1-5	833 pounds
1-6	1000 pounds
1-7	1167 pounds
1-8	1333 pounds
1-9	1500 pounds
1-10	1667 pounds
1-11	1833 pounds
1-12	1999 pounds

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual ethylene oxide usage limitation for P001, P002 and P003, combined, shall be based upon a rolling, 12-month summation of the ethylene oxide usage figures.

2. The average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber, for any 3-hour block of time when the ethylene oxide disposer is processing ethylene oxide, shall not be less than 365 degrees Fahrenheit.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain daily records of the following information:

a. The ethylene oxide usage, in pounds;

b. The total number of hours the emissions unit was in operation;

c. The uncontrolled, average hourly OC emission rate, in pounds per hour, using the following equation:

E (Uncontrolled) = (ethylene oxide usage, in lbs) / (total number of hours of operation); and

d. The controlled, average hourly OC emission rate, in pounds per hour, using the following equation:

E (Controlled) = (uncontrolled OC emission rate, in lbs/hr) x (1 - (CE/100))

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Where: CE = control efficiency of the ethylene oxide disposer.

2. The permittee shall maintain monthly records of the following information:

a. The ethylene oxide usage for each month, in pounds;

b. During the first 12-calender months of operation following the issuance of this permit, the permittee shall keep a record of the cumulative ethylene oxide usage in this emissions unit; and

c. Beginning after the first 12-calender months of operation following the issuance of this permit, the rolling, 12-month summation of the ethylene oxide usage figures, in pounds.

3. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter to within 10 degrees Fahrenheit. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

a. All 3-hour blocks of time (when the ethylene oxide disposer is processing ethylene oxide) during which the average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber was less than 365 degrees Fahrenheit; and

b. A log of the downtime for the ethylene oxide disposer system, control device, and monitoring equipment, when ethylene oxide was exhausted from the sterilizers and/or aerator.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the pound per hour OC (ethylene oxide) emission limitation.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative ethylene oxide usage levels.

3. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average oxidation temperature at the outlet to the catalyst bed or at the exhaust

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point from the thermal combustion chamber does not comply with the temperature limitation specified above.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation: 0.01 pound OC (ethylene oxide) per hour

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping requirements as specified in term C.2.

b. Emission Limitation: 0.044 ton OC (ethylene oxide) per year

Applicable Compliance Method: Compliance shall be based on the record keeping requirements as specified in term C.2 and shall be the sum of the 365 daily emission rate for the calendar year.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P002 (Eagle 3017 Units 3 and 4) - Sterilization process using two sterilizers and one aerator. Organic compound (OC) emissions shall be controlled by an Ethylene oxide disposer (catalytic oxidizer).	OAC rule 3745-31-05(A)(3)	Emissions of OC as ethylene oxide shall not exceed 0.01 lb/hour and 0.044 ton/year.
	OAC rule 3745-21-07(G)(2)	None. See A.2.a below.
	40 CFR, Part 63, Subpart O	None. See A.2.b below.

2. Additional Terms and Conditions

2.a This emissions unit employs OC (ethylene oxide) in a gaseous state and, therefore, is not subject to the requirements of OAC rule 3745-21-07(G)(2).

2.b Sterilization sources using less than 1 ton of ethylene oxide within all consecutive 12-month periods after December 6, 1996, are not subject to the emissions standards in Section 63.362 of 40 CFR, Part 63, Subpart O.

B. Operational Restrictions

1. The maximum annual ethylene oxide usage for emissions units P001, P002 and P003, combined, shall be less than 1 ton, based upon a rolling, 12-month summation of ethylene oxide usage figures.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the ethylene oxide usage levels specified in the following table for P001, P002 and P003, combined:

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Month(s)	Maximum Allowable Cumulative Ethylene Oxide Usage
1	167 pounds
1-2	333 pounds
1-3	500 pounds
1-4	667 pounds
1-5	833 pounds
1-6	1000 pounds
1-7	1167 pounds
1-8	1333 pounds
1-9	1500 pounds
1-10	1667 pounds
1-11	1833 pounds
1-12	1999 pounds

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual ethylene oxide usage limitation for P001, P002 and P003, combined, shall be based upon a rolling, 12-month summation of the ethylene oxide usage figures.

2. The average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber, for any 3-hour block of time when the ethylene oxide disposer is processing ethylene oxide, shall not be less than 365 degrees Fahrenheit.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain daily records of the following information:

a. The ethylene oxide usage, in pounds;

b. The total number of hours the emissions unit was in operation;

c. The uncontrolled, average hourly OC emission rate, in pounds per hour, using the following equation:

E (Uncontrolled) = (ethylene oxide usage, in lbs) / (total number of hours of operation); and

d. The controlled, average hourly OC emission rate, in pounds per hour, using the following equation:

E (Controlled) = (uncontrolled OC emission rate, in lbs/hr) x (1 - (CE/100))

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Where: CE = control efficiency of the ethylene oxide disposer.

2. The permittee shall maintain monthly records of the following information:

a. The ethylene oxide usage for each month, in pounds;

b. During the first 12-calender months of operation following the issuance of this permit, the permittee shall keep a record of the cumulative ethylene oxide usage in this emissions unit; and

c. Beginning after the first 12-calender months of operation following the issuance of this permit, the rolling, 12-month summation of the ethylene oxide usage figures, in pounds.

3. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter to within 10 degrees Fahrenheit. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

a. All 3-hour blocks of time (when the ethylene oxide disposer is processing ethylene oxide) during which the average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber was less than 365 degrees Fahrenheit; and

b. A log of the downtime for the ethylene oxide disposer system, control device, and monitoring equipment, when ethylene oxide was exhausted from the sterilizers and/or aerator.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the pound per hour OC (ethylene oxide) emission limitation.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative ethylene oxide usage levels.

3. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average oxidation temperature at the outlet to the catalyst bed or at the exhaust

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point from the thermal combustion chamber does not comply with the temperature limitation specified above.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation: 0.01 pound OC (ethylene oxide) per hour

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping requirements as specified in term C.2.

b. Emission Limitation: 0.044 ton OC (ethylene oxide) per year

Applicable Compliance Method: Compliance shall be based on the record keeping requirements as specified in term C.2 and shall be the sum of the 365 daily emission rate for the calendar year.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P003 (Eagle 3017 Units 5 and 6) - Sterilization process using two sterilizers. Organic compound (OC) emissions shall be controlled by an Ethylene oxide disposer (catalytic oxidizer).	OAC rule 3745-31-05(A)(3)	Emissions of OC as ethylene oxide shall not exceed 0.01 lb/hour and 0.044 ton/year.
	OAC rule 3745-21-07(G)(2)	None. See A.2.a below.
	40 CFR, Part 63, Subpart O	None. See A.2.b below.

2. Additional Terms and Conditions

2.a This emissions unit employs OC (ethylene oxide) in a gaseous state and, therefore, is not subject to the requirements of OAC rule 3745-21-07(G)(2).

2.b Sterilization sources using less than 1 ton of ethylene oxide within all consecutive 12-month periods after December 6, 1996, are not subject to the emissions standards in Section 63.362 of 40 CFR, Part 63, Subpart O.

B. Operational Restrictions

1. The maximum annual ethylene oxide usage for emissions units P001, P002 and P003, combined, shall be less than 1 ton, based upon a rolling, 12-month summation of ethylene oxide usage figures.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the ethylene oxide usage levels specified in the following table for P001, P002 and P003, combined:

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Month(s)	Maximum Allowable Cumulative Ethylene Oxide Usage
1	167 pounds
1-2	333 pounds
1-3	500 pounds
1-4	667 pounds
1-5	833 pounds
1-6	1000 pounds
1-7	1167 pounds
1-8	1333 pounds
1-9	1500 pounds
1-10	1667 pounds
1-11	1833 pounds
1-12	1999 pounds

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual ethylene oxide usage limitation for P001, P002 and P003, combined, shall be based upon a rolling, 12-month summation of the ethylene oxide usage figures.

2. The average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber, for any 3-hour block of time when the ethylene oxide disposer is processing ethylene oxide, shall not be less than 365 degrees Fahrenheit.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain daily records of the following information:

a. The ethylene oxide usage, in pounds;

b. The total number of hours the emissions unit was in operation;

c. The uncontrolled, average hourly OC emission rate, in pounds per hour, using the following equation:

E (Uncontrolled) = (ethylene oxide usage, in lbs) / (total number of hours of operation); and

d. The controlled, average hourly OC emission rate, in pounds per hour, using the following equation:

E (Controlled) = (uncontrolled OC emission rate, in lbs/hr) x (1 - (CE/100))

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Where: CE = control efficiency of the ethylene oxide disposer.

2. The permittee shall maintain monthly records of the following information:

a. The ethylene oxide usage for each month, in pounds;

b. During the first 12-calender months of operation following the issuance of this permit, the permittee shall keep a record of the cumulative ethylene oxide usage in this emissions unit; and

c. Beginning after the first 12-calender months of operation following the issuance of this permit, the rolling, 12-month summation of the ethylene oxide usage figures, in pounds.

3. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter to within 10 degrees Fahrenheit. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

a. All 3-hour blocks of time (when the ethylene oxide disposer is processing ethylene oxide) during which the average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber was less than 365 degrees Fahrenheit; and

b. A log of the downtime for the ethylene oxide disposer system, control device, and monitoring equipment, when ethylene oxide was exhausted from the sterilizers.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the pound per hour OC (ethylene oxide) emission limitation.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative ethylene oxide usage levels.

3. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber does not comply with the temperature limitation specified above.

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E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation: 0.01 pound OC (ethylene oxide) per hour

Applicable Compliance Method: Compliance shall be demonstrated by the record keeping requirements as specified in term C.2.

b. Emission Limitation: 0.044 ton OC (ethylene oxide) per year

Applicable Compliance Method: Compliance shall be based on the record keeping requirements as specified in term C.2 and shall be the sum of the 365 daily emission rate for the calendar year.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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