

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NESHAP SOURCE

PERMITTEE

Medline Industries, Inc. - Northpoint Services Division  
Attn: Demetri Katsulis  
1160 South Northpoint Boulevard  
Waukegan, Illinois 60085

Application No.: 04120009

I.D. No.: 097190AFG

Applicant's Designation:

Date Received: December 24, 2009

Subject: Ethylene Oxide Sterilization

Date Issued: December 31, 2013

Expiration Date: December 31, 2023

Location: 1160 South Northpoint Boulevard, Waukegan, Lake County

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of:

10 Ethylene Oxide Sterilizers Controlled by a Wet Scrubber and 2 Aeration Rooms Controlled by an Oxidizer or 2 Packed Tower Scrubbers

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
    - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Material (VOM) and 10 tons/year for any single Hazardous Air Pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
    - ii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
  - b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
  - c. This permit supersedes all operating permits issued for this location.
- 2a. The ethylene oxide sterilizers and aeration rooms are subject to the NESHAP for Ethylene Oxide Emissions Standards for Sterilization Facilities, 40 CFR 63 Subparts A and O because the source uses 907 Kg (1 ton) or more of ethylene oxide within any consecutive 12-month period. Pursuant to 40 CFR 63.362, the owner or operator shall comply with the following:

- i. The emission limitations of 40 CFR 63.362(c) and (d) apply during sterilization operation. The emission limitations do not apply during periods of malfunction [40 CFR 63.362(b)];
  - ii. Pursuant to 40 CFR 63.362c, each owner or operator of a sterilization source using 1 ton or more of ethylene oxide shall reduce ethylene oxide emissions to the atmosphere by at least 99 percent from each sterilization chamber vent; and
  - iii. Pursuant to 40 CFR 63.362(d), Each owner or operator of a sterilization source using 10 tons or more of ethylene oxide shall reduce ethylene oxide emissions to the atmosphere from each aeration room vent to a maximum concentration of 1 ppmv or by at least 99 percent, whichever is less stringent, from each aeration room vent.
- b. At all times, the Permittee shall also, to the extent practicable, maintain and operate the affected emission units, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
  - b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meters (1000 feet) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
  - c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
  - d. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).

- 4a Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
  - b. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.
  - c. In the event that the operation of this emission unit results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- 5a. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
  - b. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
  - c. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
    - i. The name and address of the source;
    - ii. The name and address of the owner or operator responsible for the execution of the operating program;
    - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
    - iv. Location of unloading and transporting operations with pollution control equipment;

- v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
  - vi. Estimated frequency of application of dust suppressants by location of materials; and
  - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- d. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code 212 Subpart K and shall be submitted to the Illinois EPA for its review.
- 6a. Total combined operations and emissions from the 10 ethylene oxide sterilizers and the aeration rooms shall not exceed the following limits:

<u>Control Efficiency</u>	<u>Ethylene Oxide/VOM Usage (Tons/Month)</u>	<u>(Tons/Year)</u>	<u>Controlled VOM Emissions (Tons/Month)</u>	<u>(Tons/Year)</u>
99%	54	539	0.54	5.39

These limits are being applied to define the potential emissions of the unit. These limits are based on maximum operation. Compliance with the annual limits shall be determined from a running total of 12 months of data.

- b. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.7 tons/month and 7.0 tons/year of any single HAP and 1.6 tons/month and 16.0 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirements to obtain a CAAPP Permit from the Illinois EPA.
  - c. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 7a. Pursuant to 40 CFR 63.363(a), upon a written notification by the Illinois EPA, the owner or operator of a source subject to emission standards in Section 63.362 shall conduct an initial performance test using the procedures listed in Section 63.7 according to the applicability in Table 1 of Section 63.36, the procedures listed in this section, and the test methods listed in Section 63.365.

- b. Pursuant to 40 CFR 63.365, upon written notification by the Illinois EPA, the owner or operator of a source subject to the emission standards in Section 63.362 shall comply with the performance testing requirements in Section 63.7 of Subpart A according to the applicability in Table 1 of Section 63.360.
- 8a. Pursuant to 40 CFR 63.364 the owner or operator of a source subject to the emissions standards in section 63.362 shall comply with the monitoring requirements in section 63.8 A according to the applicability in Table 1 of section 63.360.
- b. For sterilization facilities complying with 40 CFR 63.363 through the use of catalytic oxidation or thermal oxidation, the owner or operator shall either comply with 40 CFR.364(e) or continuously monitor and record the oxidation temperature at the outlet to the catalyst bed or at the exhaust point from the thermal combustion chamber using the temperature monitor described in paragraph c(4).

Monitoring is required only when the oxidation unit is operated. From 15-minute or shorter period temperature values, a data acquisition system for the temperature monitor shall compute and record a daily average oxidation temperature. Strip chart data shall be converted to record a daily average oxidation temperature each day any instantaneous temperature recording falls below the minimum temperature.
- c. For sterilization facilities complying with section 63.363(b) or (d) through the use of an acid-water scrubber, the owner or operator shall either:
  - i. Sample the scrubber liquor and analyze and record once per week the ethylene glycol concentration of the scrubber liquor using the test methods and procedures in section 63.365(e)(1). Monitoring is required during a week only if the scrubber unit has been operated; or
  - ii. Measure and record once per week the level of the scrubber liquor in the recirculation tank. The owner or operator shall install, maintain, and use a liquid level indicator to measure the scrubber liquor tank level (i.e., a marker on the tank wall, a dipstick, a magnetic indicator, etc.). Monitoring is required during a week only if the scrubber unit has been operated.
- 9. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5

years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 10a. The Permittee shall keep the records required by 40 CFR 63.367 for each affected emission unit and associated control equipment, as required by 40 CFR 63, Subpart O, including the following:
- i. Inspection records for the control device and monitoring equipment, to document that the inspection and maintenance required by the applicable compliance and performance provisions and monitoring requirements have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, and a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.
  - ii. Records of all maintenance performed on each affected emission unit, as related to emissions, the associated control system, and monitoring equipment.
  - iii. Records of the occurrence, duration, and cause (if known) of each malfunction of each affected emission unit, associated control system, and monitoring equipment.
  - iv. Copies of test reports documenting results of all performance tests and all measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the compliance procedures of 40 CFR 63.363.
  - v. Records of monitoring data required by 40 CFR 63.364 and Condition 1.1.8 that are used to demonstrate compliance with the standard including the date and time the data are collected.

- vi. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data. Records of excess emissions that occurs during malfunction of each affected emission unit, associated control equipment or monitoring equipment.
  - vii. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data. Records of excess emissions that occur during periods other than malfunction of each affected emission unit and associated control device or monitoring equipment.
  - viii. Records for the specification for the catalytic oxidizer including recommended minimum oxidation temperature.
  - ix. Copies of the notifications and reports required by 40 CFR Parts 63.9, 63.10, and 63.366 as described in Condition 1.1.10, with supporting documentation.
  - x. All records shall be retained for a period of five years, pursuant to 40 CFR 63.10(b)(1).
- 11a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions of this permit:
- i. VOM and HAPs usage (tons/month and tons/year).
  - iii. Monthly and annual emissions of CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, VOM, each individual HAP and total HAPs from the source, with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 12a. Pursuant to 40 CFR 63.366(a) the owner or operator of a source subject to the emission standards in 40 CFR 63.362 shall fulfill all reporting requirements in 40 CFR 63.10(a),(d),(e) and (f) of Subpart A according to the applicability in Table 1 of 40 CFR 63.360. These reports will be made to the Administrator at the appropriate address identified in 40 CFR 63.13 of Subpart A.
- b. Content and submittal dates for deviations and monitoring system performance reports. All deviations and monitoring system performance reports and all summary reports, if required per 40 CFR 63.10(e)(3)(vii) and (viii), shall be delivered or postmarked within 30

days following the end of each calendar half or quarter as appropriate (see 40 CFR 63.10(e)(3)(i) through (iv) for applicability). Written reports of deviations from an operating limit shall include all information required in 40 CFR 63.10c5 through (13), as applicable in Table 1 of 40 CFR 63.360, and information from any calibration tests in which the monitoring equipment is not in compliance with PS 9 or the method used for temperature calibration. The written report shall also include the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no deviations have occurred or monitoring equipment has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

- c. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or deviation and efforts to reduce emissions and future occurrences.
- d. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance and Enforcement Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this permit, please contact David Hulskotter at 217/785-1705.

Raymond E. Pilapil  
Acting Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

REP:DWH:psj

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from the source operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for any combination of such HAPs) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)					Single	Total
	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>VOM</u>	<u>HAP</u>	<u>HAPs</u>
Ethylene Oxide Sterilization Process					5.39		
Totals	--	--	--	--	5.39	7.0	16.0

DWH:psj