



Fact Sheet Medline Industries Application for Construction Permit May 2019

Source:

Medline Industries, Inc.
1160 South Northpoint Boulevard
Waukegan, Illinois

Nature of existing Source:

Medline operates a commercial sterilization facility. It uses ethylene oxide to sterilize medical devices and surgical equipment (MD&SE). Its sterilization process includes ten sterilization chambers where the MD&SE are sterilized and two aeration rooms where the MD&SE aerate after sterilization. Currently, emissions from evacuation of sterilization chambers are controlled by two sets of scrubbers in series. The aeration rooms are controlled by two packed-tower scrubbers and a catalytic oxidizer, all in parallel.

Proposed improvements to operations addressed by this permit application:

Medline has submitted an application for air pollution control construction permit for improvements to the emission control measures at the facility (Application No. 19020013). The improvements include an upgrade to permanent total enclosure, installation of additional emission control devices, elimination of existing stacks, and construction of a new common stack, as further described below. The permitted emissions of the facility would be significantly reduced with these improvements.

- Changes to building airflows and internal features such that all emissions of ethylene oxide occur within a permanent total enclosure. This will entail installation of additional emission control devices, as identified below, to handle the additional air flow with permanent total enclosure.
- Control of emissions from the ethylene oxide storage area sweep, sterilized product storage area sweep, Glygen™ room sweep, sterilizer chamber room hood and sterilizer chamber room floor sweeps with a new packed bed scrubber.
- Control of emissions from the back vents of the sterilization chambers with two new dry bed absorption (DBA) devices, in series.
- Improved control of emissions from the aeration rooms by ducting the exhaust from the existing control system (two packed-tower scrubbers and a catalytic oxidizer) to the new DBA devices.
- Improved control of emission from the evacuation of the sterilization chambers by ducting the exhaust from the existing controls (two sets of scrubbers) through the enhanced control system for the aeration rooms.
- Construction of a new common stack that would handle all emissions, improving dispersion of emissions.
- Limitations on total ethylene oxide emissions - 150 pounds per year.
- Installation of a continuous emissions monitor system for ethylene oxide, in the new common stack, which will be designed to measure concentrations as low as ten parts per billion.

Contact for more information

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