

Ethylene Oxide: Technical Reviews and Outreach to Potentially Affected Communities
Final Report – November 2022
Sterigenics – Santa Teresa, New Mexico

As EPA pursues its mission to protect public health and the environment, addressing ethylene oxide (EtO) remains a major priority for the Agency. EPA's National Air Toxics Assessment (NATA), released in August 2018, identified a number of areas (census tracts) with potentially elevated risk from continuous exposure, over 70 years, to EtO in the outdoor air. NATA estimated these risks based on EtO emissions from 2014, which were the most recently available at the time.

NATA is a screening-level analysis that is intended to identify pollutants or areas for closer examination. Because of this, additional work is needed to better understand emissions in areas that NATA identified as potentially having elevated risk. EPA has been supporting its state air agency partners as they conduct that work and identify opportunities for reducing EtO emissions from individual facilities, while the Agency reviews its national regulations for industrial facilities that emit EtO. Actual risks today may be higher or lower than NATA estimated due to several factors, including updated or more refined facility emissions information, or recent facility changes such as the installation of pollution controls.

The information below describes the status of EPA's work on the Sterigenics commercial sterilization facility in Santa Teresa, New Mexico. EPA is providing this information, in part, in response to the EPA Office of Inspector General's March 31, 2020, Management Alert which called on EPA to provide information to the 25 communities that NATA identified as potentially having the highest risk from EtO emissions.

Note: For commercial sterilizers, including Sterigenics, EPA is compiling more current and complete emissions data to generate new risk estimates for ethylene oxide sterilizers across the country as part of its work to develop a proposed revision for the National Emissions Standards for Hazardous Air Pollutants for EtO sterilization facilities. EPA will share this information, which will include refined risk estimates at the census block level, with the public as part of its upcoming proposed rule.

Technical information

In its response to the OIG's report, EPA noted that it believes the OIG erroneously included the Sterigenics Santa Teresa Facility in its list of facilities for follow-up. NATA-estimated risks for the census tract near the Sterigenics facility were 200 in 1 million based on 2014 emissions data. Prior to releasing NATA, EPA learned that the facility had installed a control device that reduced ethylene oxide emissions by 83 percent between 2014 and 2016, which would be expected to reduce risk. EPA included this information on the NATA products when the assessment was released in August 2018 and documented the emissions reduction in the emissions update file, available at https://www.epa.gov/sites/production/files/2018-08/documents/2014_nata_updates_to_emissions.pdf

State Lawsuit

The New Mexico Attorney General has filed a lawsuit against Sterigenics, alleging that the company emitted ethylene oxide "in excess of permissible limits" at the Santa Teresa facility and seeking changes to its sterilization process, along with damages and penalties. The lawsuit was filed December 22, 2020, in the Third Judicial District Court in Las Cruces, NM.

Outreach conducted:

EPA conducted an EtO pre-regulatory rulemaking community outreach meeting in Santa Teresa, NM on November 1, 2022. The meeting was an “open house” style event where attendees from the community could ask EPA representatives questions about their concerns in an informal one-on-one conversation. Representatives from the New Mexico Environment Department Air Quality Bureau and the New Mexico Department of Health were also in attendance and responded to citizen questions. EPA and the State of New Mexico representatives responded to questions and concerns during the meeting.