

**Ethylene Oxide: Technical Reviews and Outreach to Potentially Affected Communities  
Status Report for Shell Technology Center – Houston, TX  
First Quarter 2021 Update**

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 technical analyses conducted for Shell Technology Center in Houston, TX, as part of the follow-up work conducted since NATA was issued in August 2018. It also summarizes outreach to nearby communities about the NATA results. 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.

**Technical reviews conducted**

In October 2020, EPA Region 6 requested assistance from the State of Texas in gathering the most current information on the specific ethylene oxide emitting facilities, including the Shell Technology Center, and to assist with the development of technical assessments. Our request outlined our proposed technical approach/steps to complete these assessments, including the information needed from our state regulatory partners.

- EPA is communicating with the State of Texas to obtain updated and accurate facility emissions and control data on EtO.
- The EPA NATA estimate was based on annual routine emissions data from 2014. From 2014 to 2019, annual routine EtO emissions at the Shell Technology Center have been consistently less than 0.5 tons per year.

**Outreach conducted**

EPA Region 6 is currently focused on developing additional, more refined assessments. EPA Region 6 will then discuss with the State of Texas how to share information with nearby communities. Additional information on the Shell Technology Center will be provided on this website in future updates.