

Ethylene oxide: Technical Reviews and Outreach to Potentially Affected Communities

Status Report – BCP Ingredients in Verona, Missouri

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 BCP Ingredients 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.

Background

- **BCP Ingredients** – Located in Lawrence County, MO. BCP is a subsidiary of Balchem Corporation. BCP manufactures and markets choline chloride which uses ethylene oxide and repackages ethylene oxide for other users. BCP is located on a Superfund National Priority List (NPL) site.

Technical reviews conducted

- **Conducted site visits** – EPA Region 7 staff visited the site on November 15, 2018 and May 2, 2019. Activities associated with the visit included review of plant operations, emissions control equipment, verification of stack parameters and locations.
- **Updated dispersion and risk modeling** – EPA Region 7 revised dispersion and risk model to reflect updated and verified modeling parameters (i.e., location of emission points and stack parameters). Modeling was used as a screening tool to understand impact of facility emissions on risk for community surrounding the facility (November 2018 - December 2019).

- **Implementation of leak detection program and installation of wastewater controls –** BCP voluntarily implemented a leak detection and repair (LDAR) program (2019-ongoing) and conducts quarterly measurement activities. The facility conducted testing of process wastewater, which led to voluntary installation of a wastewater batch control system during May-July 2020. The facility also evaluated the acid scrubber in August 2020 and EPA continues to work with the facility to encourage additional voluntary scrubber emissions testing.

Outreach conducted:

- Region 7 developed a communication strategy for the Verona, Missouri area. The strategy focused on sharing information with the community in a thoughtful and meaningful manner by engaging community leaders and elected officials to understand the work Region 7 has done with BCP. After technical information was shared with public officials, Region 7 engaged community residents and shared educational information on Ethylene Oxide and actions taken by the facility.
- Outreach and engagement were led by EPA Region 7 and took place with the facility, elected officials, state regulators (Missouri DNR and Missouri Department of Health and Senior Services), community leaders and the public.

Details for outreach activities are included below:

- **Facility**

- EPA Region 7 visited the BCP facility to examine facility operations, verify emissions, physical parameters and location of emission points. In addition, representatives from BCP visited Region 7 headquarters office to brief EPA’s regional administrator on characterization (i.e., LDAR) and testing progress (i.e., wastewater testing) at the site.
- **Venue** In-person site visits, meetings and teleconferences.
- **Event Dates:**

Year	Date
2018	11/15
2019	5/2, 7/10

- **Elected officials, community leaders and state regulators –**

- EPA Region 7 met with public elected officials (PO – Mayor, City Council), congressional representatives (CR), community leaders (CL) and state regulators (SR) to share information about the 2014 National Air Toxics Assessment (NATA – published on 2018) and discuss impact of BCP on risk values published by the NATA for Lawrence County. In addition, Region 7

briefed stakeholders on plans for community outreach, communication and engagement.

- **Venue:** In-person meetings, site visit, teleconferences.

- **Event Dates:**

Year	Date
2019	2/21 (CR), 2/28 (CR), 3/12 (CR), 3/13 (CR), 10/8 (CR)

- **Public (Verona Community) –**

- EPA Region 7 met with the community on two separate occasions; 1) information session with mayor and city council, and 2) open house to share information about the 2014 National Air Toxics Assessment (NATA – published on 2018), educational information about ethylene oxide and to discuss details related to the BCP facility ethylene oxide emissions.

- **Venue:** In-person public meetings and availability sessions.

- **Event Dates:**

Year	Date
2019	10/11, 11/18