DENKA FACILITY IN LOUISIANA
(CHLOROPRENE EMISSIONS FROM NEOPRENE MFG.)

ISSUE SUMMARY:

EPA's National Air Toxics Assessment (NATA) published in December 2015 identified exposure to chloroprene emissions as posing an increased lifetime cancer risk to people. In March 2016, EPA and the Louisiana Department of Environmental Quality found elevated concentrations of chloroprene in ambient air in the neighborhoods surrounding the Denka Performance Elastomer LLC (Denka) facility in LaPlace, Louisiana.

Chloroprene is one of the 187 pollutants that Congress classified as "hazardous air pollutants," also called air toxics. The Clean Air Act instructs EPA to regulate air toxics by setting standards for listed source categories, rather than by setting ambient standards. Therefore, there is no federal ambient air quality standard for chloroprene in the air. The Integrated Risk Information System human inhalation unit risk estimate, which is not based on an evaluation of current, real world exposures, is not an air quality standard and it is not used directly for regulatory purposes.

In 2018, Denka filed a Request for Reconsideration under the Information Quality Guidelines on the 2010 IRIS Toxicological Review of Chloroprene. Denka developed a new physiologically-based pharmacokinetic (PBPK) model for potential use in improving estimates of how chloroprene is absorbed, distributed, metabolized and excreted by the human body. The model is undergoing peer review and the public meeting occurred on October 5-6, 2020.

UPCOMING MILESTONES:

October 2020 - Final peer review comments are due on October 26. EPA receives final peer review report.

Ex. 5 DP / Ex. 7(A)

BACKGROUND:

The facility was built in 1964 by the Dupont Company and was purchased by Denka from DuPont in November 2015. This facility is the only place in the U.S. currently manufacturing neoprene. EPA became aware of the potential risk associated with the facility's emissions of chloroprene, a primary chemical used in the manufacture of neoprene, in December 2015 as a result of National Air Toxics Assessment.

In March 2016, EPA and Louisiana Department of Environmental Quality confirmed that the emissions from the facility were in the ambient air and a need for additional monitoring.

In May 2016, EPA began a long-term community ambient air monitoring program. Data from air monitors is posted publicly. EPA also inspected the facility. Louisiana Department of Environmental Quality initiated discussions with Denka to reduce emissions of chloroprene. At the State's direction, Denka provided a monitoring plan to assess the ambient air quality impact of emissions from the facility, installed fence-line monitors around the facility, and assessed potential control technologies. In July 2016, EPA, LDEQ, and Denka met with local and regional citizens to inform them about potential health risks of chloroprene and actions the facility was evaluating to control emissions.

In January 2017, Louisiana Department of Environmental Quality and Denka signed a formal Administrative Order on Consent to reduce emissions through installation of a thermal oxidizer and other measures by the end of December 2017. This Order outlines the company's voluntary commitment to reduce emissions and report on progress.

In June 2017, Denka requested correction of the EPA's determination that chloroprene is a likely human carcinogen (the IRIS assessment) and replacement with consideration of new science. Following EPA's January 2018 denial of the RFC, Denka submitted a Request for Reconsideration (RFR) in July 2018. The basis for the RFR is the development of a physiologically-based pharmacokinetic (PBPK) model that was not previously able to be considered in the IRIS assessment for chloroprene.

Since March 2018, following the implementation of emission controls being installed by DPE, chloroprene emissions have been reduced by 85% and EPA air monitoring data have shown corresponding significant reductions of chloroprene concentrations in the community. On September 25, 2020, EPA issued a summary report for the community air monitoring project and discontinued the community air monitoring program. Denka voluntarily agreed to continue operating fence-line monitors through 2021.

EPA's chloroprene data indicated that annual averages in the community would be lower except for occasional elevated measurements, or "spikes," that contribute to the averages. In March 2020, EPA began continuous air monitoring program in order to understand the magnitude and frequency of occasional, but recurring, elevated chloroprene measurements or "spikes." The continuous air monitoring program is scheduled to continue operation until December 31, 2020.

KEY EXTERNAL STAKEHOLDERS:

☐ Congress ☒ Industry ☒States ☐ Tribes ☒ Media ☒ Other Federal Agency ASTDR
☒ NGO Louisiana Environmental Action Network (LEAN) ☒ Local Governments
☒ Other (name of stakeholder) Concerned Citizens of LaPlace citizens, St. John the Baptist Parish officials

Louisiana Department of Environmental Quality has maintained communication with the Parish President and Council members. In turn, the Parish elected officials are communicating with the citizens in LaPlace. This avenue has provided timely updates and information. There has been a high level of media interest in this site. Local environmental stakeholders have held meetings and posted information on their individual websites. EPA has also met with local environmental stakeholders and the community.

MOVING FORWARD:

Ex. 5 DP / Ex. 7(A)

Ex. 5 DP / Ex. 7(A) EPA and LDEQ will continue to work with Denka to develop specific actions for controlling and reducing chloroprene emissions from their operations.

LEAD OFFICE: REGION 6 OTHER KEY OFFICES: OAR/OECA /ORD