Message

From: Browning, Debora [browning.debora@epa.gov]
Sent: 8/11/2021 1:15:15 PM
To: Casso, Ruben [Casso.Ruben@epa.gov]
Subject: RE: EPA: Eastman Chemical reduced emissions of pollutant by 75% over 6 years, reduced public health risk

Thanks Ruben.

From: Casso, Ruben <Casso.Ruben@epa.gov>
Sent: Wednesday, August 11, 2021 7:17 AM
To: Browning, Debora <browning.debora@epa.gov>; Acevedo, Janie <Acevedo.Janie@epa.gov>
Subject: FW: EPA: Eastman Chemical reduced emissions of pollutant by 75% over 6 years, reduced public health risk

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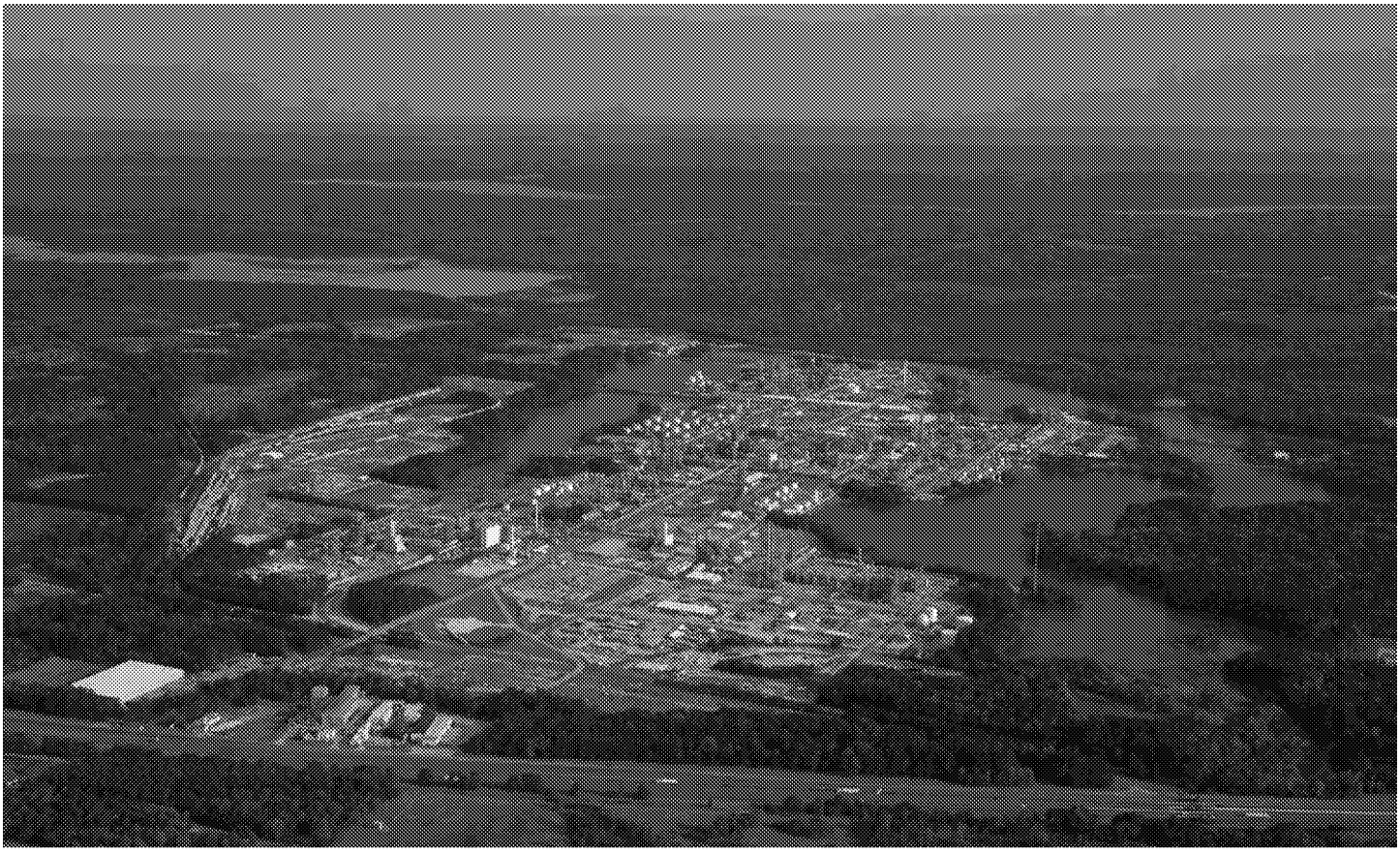
From: Casso, Ruben
Sent: Wednesday, August 11, 2021 7:15 AM
To: Robinson, Jeffrey <Robinson.Jeffrey@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Durant, Jennah <Durant.Jennah@epa.gov>
Cc: Hood, Brianna <Hood.Brianna@epa.gov>; Vasu, Amy <Vasu.Amy@epa.gov>; Bremer, Kristen <Bremer.Kristen@epa.gov>
Subject: EPA: Eastman Chemical reduced emissions of pollutant by 75% over 6 years, reduced public health risk

https://www.news-journal.com/news/local/epa-eastman-chemical-reduced-emissions-of-pollutant-by-75-over-6-years-reduced-public-health/article_73d5ea38-fa10-11eb-b587-cba724af589c.html

EPA: Eastman Chemical reduced emissions of pollutant by 75% over 6 years, reduced public health risk

- By Courtney Stern cstern@news-journal.com



Eastman Chemical Company is pictured on April 16, 2019. Local Eastman Chemical employees recently earned praise from company CEO Mark Costa for their work during February's winter storm.

Eastman Chemical Company on Tuesday April 16, 2019. (Michael Cavazos/News-Journal Photo)

Eastman Chemical Co.'s reduction of the emission of a harmful pollutant during the past six years has also led to decreased public health risk, according to the Environmental Protection Agency.

The EPA held a virtual community meeting Tuesday evening regarding Eastman Chemical's ethylene oxide (EtO) emissions and its health effects.

According to the CDC, ethylene oxide is a flammable gas that can be harmful to those exposed. Exposure to ethylene oxide may cause headache, nausea, vomiting, diarrhea, breathing difficulty, drowsiness, weakness, exhaustion, reproductive as well as eye and skin burns.

Supervisor for the EPA in the Dallas Texas area Fran Verhalen said ethylene oxide is a component of many household products

Ethylene oxide is used in clothing, detergent, personal protective equipment and more.

Many medical devices are sterilized using ethylene oxide.

Eastman both makes and uses ethylene oxide.

EPA's National Air Toxics Assessment (NATA) released in 2018, identified a number of areas across the nation with potentially elevated risk from continuous exposure to EtO in the outdoor air. Addressing EtO emissions remains a major priority for the EPA, according to the agency. In Oct. 2020, EPA Region 6 requested assistance from the State of Texas in gathering the most current information on ethylene oxide emitting facilities and assistance with technical assessments, including Eastman Chemical.

"From 2014-2020, through emission reductions and/or re-evaluation of actual emission levels, reported EtO annual emissions at the Eastman facility were reduced approximately 75 percent," the technical assessment report released in July said.

The reduction in emissions has resulted in a reduction of public health risk.

"Based on 2018 emission inventory data, EPA is updating the estimated inhalation public health risk from ethylene oxide in the community near Eastman," the report said. "The revised increased cancer risk number based on 2018 emission data is 300 in 1 million."

The model used to assess risk shows a geographic extent of about a 30 mile radius.

"The risk can be over that entire area but when we work through the model, we determine which census tracts will have the highest risk," Vehalen said. Areas closer to Eastman are most at risk, within a 1 to 1.5 mile radius.

"I use the term Potential cancer risk because each of us is unique in our reaction to cancer causing agents," Vehalen said.

This is a 78% decrease from the 2014 risk assessment of 1,355 in a million.

“Preliminary 2020 annual EtO emissions are about half of the 2018 EtO emissions assessed by EPA,” the report said.

EPA uses a general 100 in 1 million, more simply 1 in 10,000, increased risk of cancer as a guideline for further investigation.

“It assumes a continuous, 24 hours per day inhalation exposure to hazardous pollutants, including EtO, for a lifetime of 70 years,” the report said.

A risk of 100 in 1 million or more is what requires additional research and is not deemed acceptable by EPA. It is also measured as chronic or lifetime exposure.

“One time, short-term exposure to low amounts of ethylene oxide should not cause immediate harm to a person’s health,” Verhalen said.

Long term exposure to ethylene oxide increases the estimated risk of possibly developing certain cancers such as leukemia, lymphoma and breast cancer.

According to the technical assessment, the changes EtO emission estimates at Eastman are the result of refinements to the engineering estimates of the emissions and are not due to physical or operational changes at the facility.

“We are appreciative of your cooperation and activities to voluntarily reduce and/or more accurately report emissions of ethylene oxide from your facility,” EPA Acting Regional Administrator David W. Gray said in a July letter to Eastman regarding the release of the technical assessment. “We continue to encourage actions to further reduce and control emissions of ethylene oxide from your facility.”

Eastman Vice President of Texas Operations Andrew Coggins spoke during the presentation to give the background of the company and the safety compliance. Coggins is also a site leader in Longview.

“The Longview community is very important to us,” Coggins said. “We live and work here, we raise our kids here...we support the region where we live.”

Eastman has been located in Longview since 1952. Coggins said the company has a "very strong safety track record."

"Eastman is very proud to call Longview home," Coggins said. "We know the decisions we make not only impact our employees, those decisions have the potential to impact residents too."

He said the company will readily comply with EPA regulations. PhD Shari Beth Libicki with Ramboll Group was hired by Eastman to help with compliance as an expert.

"The EPA's predicted risk is highly conservative and does not reflect people's daily lives," Libicki said. The more conservative estimates from the EPA are supposed to be that way to protect public health, she said.

The facility manufactures EtO at two process lines and the refined EtO product is consumed in other process units on site to produce other chemicals.

In 2019, Eastman reviewed the operation of its EtO emissions sources, its emissions calculations and its emission inventory reports. The calculations were refined in several areas, including process vents, cooling towers, wastewater process drains and equipment leaks. Several areas lead to overestimated levels of EtO emissions.

There are future improvements planned for the plant to help further reduce EtO emissions.

Eastman plans to add a scrubber to a plant column vent, similar to one the facility has on another plant column vent.

According to testing at the plant noted in the assessment, the EtO removal efficiency of the new scrubber is expected to be 95%.

"This should further lower the facility's EtO emissions from 3,820 lbs to about 1,280 lbs, depending on production rates," the report said. "This projected future EtO annual emissions value is about one third of the 2018 value evaluated in the updated

2018 EPA risk assessment and over 91% lower than the 2014 EtO emissions evaluated in NATA."

"This effort over the past six years has resulted in a reduced estimated cancer risk," Verhalen said. However, Eastman's risk numbers are still above EPAs guideline based on the 2018 report.