



EPA Issues Final Rule to Reduce Toxic Air Pollution from the Synthetic Organic Chemical Manufacturing Industry and the Polymers and Resins Industries

FACT SHEET

Overview

- On April 9, 2024, the U.S. Environmental Protection Agency (EPA) announced a final action that will provide critical health protections to hundreds of thousands of people living near chemical plants. The action, signed March 28, 2024, will reduce emissions of hazardous air pollutants, including the toxic chemicals chloroprene and ethylene oxide (EtO). It will also reduce harmful pollution that contributes to smog. The rule implements sections 111 and 112 of the Clean Air Act.
- The final action significantly strengthens several Clean Air Act regulations. These regulations apply to a variety of types of equipment and processes that chemical plants use to make synthetic organic chemicals and polymers and resins, including neoprene.
- Many hazardous air pollutants, also called “air toxics,” are known or suspected to cause cancer in humans and can have serious health effects even in small quantities. The final rule will dramatically reduce lifetime air toxics-related cancer risks for people living in communities near chemical plants that emit EtO and chloroprene, both of which are potent air toxics.
- When fully implemented, the final rule will reduce more than 6,200 tons a year of over 100 air toxics – including EtO and chloroprene – from covered equipment and processes at plants in Texas and Louisiana, along with plants in other parts of the country, including Delaware, New Jersey, and the Ohio River Valley.
- As part of the final rule, the Agency is also issuing new emissions limits for dioxins and furans. In addition, the rule will also reduce more than 23,000 tons of smog-forming volatile organic compounds (VOCs) each year.

The Final Rule Will Slash EtO and Chloroprene Emissions

- The biggest reductions in cancer risk will come from reducing emissions of EtO from synthetic organic chemical production and chloroprene from neoprene production. The final rule will cut nearly 54 tons of EtO emissions per year, and 14 tons of chloroprene per year – a nearly 80 percent reduction in emissions of each chemical each year compared to emissions from covered processes and equipment. before the rule. Facilities must meet risk-based requirements for reducing EtO within two years after the rule becomes effective and must meet risk-based standard for reducing chloroprene within 90 days after the effective date.
- The reductions in the rule result from a range of requirements, including requirements to improve the efficiency of flares that are used to control pollution from emissions sources. EPA

is also finalizing stronger standards for heat exchange systems, process vents, and storage vessels.

- The final rule also removes general exemptions from emissions control requirements during periods of startup, shutdown and malfunction, which the courts have held to be impermissible under the Clean Air Act. EPA's rule imposes emission standards that apply at all times.
- In addition, requirements to monitor emissions at facilities' fencelines for any of six key pollutants will help ensure facilities are effectively controlling air toxics emissions. At petroleum refineries, this type of monitoring has been highly successful at identifying sources of high benzene emissions and prompting corrective actions to reduce them.

Cutting EtO and Chloroprene Will Dramatically Reduce Cancer Risks in Nearby Communities

- The final rule will provide critical public health protections for communities near the plants covered by today's rule.
- When EPA proposed the rule, it conducted a first-of-its kind community risk assessment to provide the public with the best-possible information about how the proposal affects cancer risk from air toxics exposure. That assessment examined the impacts of the proposed requirements for synthetic organic chemical manufacturers on air toxics-related cancer risks from all large facilities in communities within about 6 miles of the plants – including facilities that would not be covered by the rule. The assessment showed that the rule would reduce the number of people who have elevated air toxics-related cancer risk by 96 percent in those communities – and the final rule delivers those reductions.
- EPA expects this risk reduction to reduce disproportionate harm to nearby communities who are often overburdened by pollution. The Agency analyzed the makeup of communities near the plants covered by the final rule. Those communities have a higher-than-average percentage of residents who are people of color and/or low socioeconomic status.
- Today's final rule also will benefit children by reducing their exposure to air toxics emissions. Because children's bodies are growing, some chemicals are more likely to harm them. Those chemicals include EtO and chloroprene, both of which damage DNA.
- To read the final rule visit [EPA's website](#). The final rule will take effect 60 days after it is published in the Federal Register.

The Final Rule Updates Proposed Fenceline Monitoring Requirements

- EPA's final rule requires plants to conduct fenceline monitoring if any of the equipment or processes covered by the rule use, produce, store, or emit EtO, chloroprene, benzene, 1,3-butadiene, ethylene dichloride or vinyl chloride. Fenceline monitoring is used to measure levels of pollution in the air around the perimeter of a facility.
- The fenceline monitoring provisions of the rule require owners and operators to ensure that levels of these six pollutants remain below a specified "action level." Fenceline monitoring

provides owners and operators the flexibility to determine what measures to take to remain below the action level, while ensuring that they are effectively controlling toxic air pollution.

- For each chemical, if the annual average concentration at the fenceline is higher than the “action level” for the chemical, owners and operators must determine the cause and make necessary repairs. The monitoring requirements include procedures that account for background levels of the six air toxics.
- The final action levels vary depending on the chemicals and type of source emitting them. For EtO, EPA is issuing an action level of 0.2 micrograms per cubic meter of air.
- For chloroprene monitoring, EPA is setting two fenceline monitoring “action levels”: 0.8 micrograms per cubic meter, based on compliance with the technology standards in the rule; and 0.3 micrograms per cubic meter at neoprene production facilities to further reduce elevated risks from a lifetime of being exposed to facility-wide chloroprene emissions.
- EPA also is requiring that fenceline monitoring for chloroprene at neoprene production facilities begin 90 days after the effective date of the rule. Monitoring equipment is already in place at the one facility affected by this requirement. However, the Clean Air Act allows the facility to submit a request for EPA’s consideration for an extension of the monitoring deadline of up to two years.
- For facilities other than neoprene production sources, EPA is finalizing a deadline of two years to begin fenceline monitoring for EtO, benzene, 1,3-butadiene, ethylene dichloride and vinyl chloride, rather than one year as proposed. The Agency is providing two years to allow commercial laboratories to expand capacity and prepare for analyzing the monitoring samples they will receive and to allow facilities to develop monitoring plans, identify appropriate monitoring location and make any necessary improvements at the fenceline to accommodate the monitors.
- The fenceline monitoring requirements will help communities learn more about what is coming out of the plants. Starting one year after monitoring begins, facilities must submit quarterly data to EPA. The data will be due within 45 days of the end of each quarter. EPA will make the monitoring data available to the public through its [WebFIRE database](#).

The Final Rule Includes Several Changes Since Proposal

- In addition to changes in the fenceline monitoring requirements, EPA is setting a shorter deadline for neoprene production sources to meet risk-based standards to reduce emissions of chloroprene.
- Owners and operators of existing sources producing neoprene must meet chloroprene requirements 90 days after the rule takes effect. Existing facilities subject to these

requirements are free to request an extension. New sources would have to meet the requirements by the rule's effective date, or upon startup, whichever is later.

- After considering public comments on the proposal, the Agency is making several other adjustments in the final rule. For example:
- EPA is not including an EtO flare load limit in the final rule. The Agency conducted additional modeling for flares used to control EtO emissions and determined that the flare load limit is not necessary when other requirements in the rule are implemented. This will allow plants to continue to use flares to destroy EtO from devices used to relieve excess pressure when necessary.
- The Agency also is not finalizing a facility-wide cap on chloroprene emissions of 3.8 tons per year in any consecutive 12-month period from all neoprene production sources. EPA believes that the fence-line monitoring requirements in the final rule will serve as a backstop for limiting emissions, including leaks (also called "fugitive emissions").
- In addition, the Agency revised the emissions control requirements for chloroprene from process vents and storage tanks to 98 percent, rather than 99.9 percent, as proposed.

Benefits and Costs

- The final rule will significantly reduce emissions of air toxics, including slashing emissions of EtO and chloroprene. These emission reductions will yield significant reductions in lifetime cancer risk attributable to these air pollutants, in addition to other health benefits. However, EPA is not able to estimate the full dollar value of these benefits.
- EPA's Regulatory Impact Analysis for the final rule does estimate the value of health benefits that will occur as a result of reducing ground-level ozone (smog) that forms from VOC emissions from chemical plants covered by the rule. EPA provides two estimates of the present value of those benefits for 2024-2038. One is \$77 million (2021\$, 3 percent discount rate), which reflects the benefits of reducing short-term ozone exposure. The other is \$690 million (2021\$, 3 percent discount rate) to reflect the benefits of reducing long-term ozone exposure. These estimates are the equivalent of \$6.5 million and \$58 million a year. In addition, the RIA estimated climate benefits and "disbenefits" that would result from a reduction in methane and additional emissions of carbon dioxide and nitrous oxide.
- The RIA for the final rule estimated the present value of costs of complying with the rule at \$1.8 billion (2021\$, 3 percent discount rate) from 2024-2038, the equivalent of \$150 million a year. The annual costs include the value of product recovery. The bulk of the estimated costs would come from complying with requirements for synthetic organic chemical manufacturing.
- Most of the facilities covered by the final rule are owned by large corporations. The cost of implementing the final rule is less than 1 percent of their annual national sales.

For More Information

- To read the final rule and additional information, [visit EPA's website](#).