

## FACT SHEET

### EPA'S Proposal to Reduce Toxic Air Pollution from the Synthetic Organic Chemical Manufacturing Industry and the Polymers and Resins Industry: Overview

#### Summary

- On April 6, 2023, the U.S. Environmental Protection Agency (EPA) issued a proposal that would provide critical health protections to hundreds of thousands of people living near chemical plants. It would do this by reducing emissions of hazardous air pollutants (also called “air toxics”) including the highly toxic chemicals ethylene oxide (EtO) and chloroprene. Many air toxics, also called hazardous air pollutants, are known or suspected to cause cancer in humans and can have serious health effects even in small quantities.
- It would also reduce harmful pollutants that contribute to smog.
- EPA’s proposal would significantly strengthen and update several Clean Air Act regulations. The regulations apply to a variety of equipment and processes used to make synthetic organic chemicals and a variety of processes used in polymers and resins production, including neoprene production.
- The proposal would dramatically reduce air toxics-related cancer risks for people who live near approximately 200 plants across the country that make synthetic organic chemicals. Most of the facilities covered by the proposal are owned by large conglomerates.
- The biggest risk reductions from chemical plants would come from cutting EtO emissions from eight plants that currently pose the highest risk to surrounding communities in Texas and Louisiana. EPA’s proposal would reduce 58 tons a year of EtO – a 63 percent reduction compared to total nationwide estimated emissions in 2020 from all sources. The proposal would cut chloroprene emissions by 74 percent reduction nationwide, compared to estimated emissions for 2020.
- When fully implemented, EPA’s proposal would reduce 6,053 tons of air toxics emissions a year from the plants in Texas and Louisiana, along with plants in other parts of the country, including the Ohio River Valley. The proposed rule would also reduce 23,500 tons of smog-forming volatile organic compounds a year.
- As EPA takes comment on and finalizes this rule, the Agency will continue to take short-term action where needed to address imminent and substantial endangerments in communities. EPA is committed to using all of its tools to reduce risk to historically underserved and overburdened communities.
- As an added measure of protection for people who live near the facilities the proposal covers, EPA’s proposed rules would require plants to conduct fence-line monitoring if they use, produce, store, or emit any of six key air toxics. Those air toxics include EtO, chloroprene, benzene, 1,3-butadiene, ethylene dichloride and vinyl chloride. Fence-line monitoring is monitoring around the perimeter of a facility.

- If annual average air concentrations of the chemicals are higher than an “action level” at the fenceline, owners and operators would have to find the source and make repairs. Fenceline monitoring provides facilities with flexibility to determine what measures should be taken to remain below the action level, while ensuring that facilities are effectively controlling hazardous air pollution.
- The proposed action levels vary depending on the chemical. For EtO, EPA is proposing an action level of 0.2 micrograms per cubic meter of air. For chloroprene, the proposed action level is 0.3 micrograms per cubic meter of air.
- EPA modeled the proposed fenceline monitoring requirements after its fenceline monitoring requirements for petroleum refineries, which have successfully identified sources of high benzene emissions at those facilities and prompted corrective actions to reduce these emissions.
- The proposed fenceline monitoring requirements would also provide transparency for nearby communities about what is coming out of the plants. Starting one year after monitoring begins, facilities would be required to submit quarterly data to EPA, which would be due within 45 days of the end of each quarter. EPA would make the monitoring data available to the public through its [WebFIRE database](#).
- EPA expects the proposal to reduce disproportionate harm to several groups of people who are often overburdened by pollution. The Agency analyzed the makeup of communities near the plants covered by the proposals. It found that those communities have a higher-than-average percentage of residents who are African American, low income and/or Hispanic or Latino.
- The proposal also would benefit children by reducing 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.
- EPA will hold a webinar on the proposal for communities and tribes April 13, 2023, to provide information about the proposed rules and answer questions. [Register to attend the webinar](#).
- The Agency will take written comments for 60 days after the proposal is published in the Federal Register. EPA will hold a virtual public hearing 21 days after publication.
- EPA has a consent decree deadline to issue a final rule by March 29, 2024.

#### The proposal would update several rules

- This proposal strengthens and updates several regulations that apply to chemical plants, and two regulations that apply to polymers and resins manufacturers.
- The Clean Air Act requires EPA to review these emission standards at least once every eight years to ensure they are keeping pace with advances in pollution control technologies and techniques.
- In addition, for processes and equipment that emit chloroprene and EtO, this proposal includes an updated health risk assessment that accounts for the latest science on these two pollutants. Based on this risk review, EPA has also proposed more protective standards

to eliminate additional elevated cancer risk to nearby communities resulting from the emission sources covered by this rule.

- This proposal revises the following Clean Air Act emission standards:
  - Six air toxics rules, also known as National Emissions Standards for Hazardous Air Pollutants, or “NESHAP:”
    - “The HON.” HON stands for Hazardous Organic NESHAP. It is made up of four rules that apply to specific equipment and processes at chemical manufacturing plants that make hundreds of bulk synthetic organic chemicals. The plants sell the chemicals or use them to make other chemicals.
    - Two air toxics rules that apply to specific equipment and processes at plants that make a variety of polymers and resins, including neoprene. These rules are known as the Group I Polymers and Resins rule, and the Group II Polymers and Resins rule. Many of the facilities covered by these rules are located on the same site as chemical plants.
  - Four New Source Performance Standards (NSPS) for VOCs. These rules apply to various pieces of equipment at chemical plants that make synthetic organic chemicals.
    - One of the NSPS that EPA reviewed applies to equipment leaks. The proposal also addresses issues raised in an administrative petition regarding the prior equipment leaks NSPS.

#### [The proposed changes to the HON would dramatically reduce risk community wide](#)

- To provide the public with the best-possible information about how the proposal affects cancer risk from air toxics exposure, EPA conducted a first-of-its kind community risk assessment. This 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. That includes risks from facilities that would not be covered by the rule. That assessment showed that, if finalized, the proposal could reduce the number of people who have elevated air toxics-related cancer risk by 96 percent in those communities.
- The community risk assessment also looked at risks that would remain after the proposal is fully implemented. It showed that the remaining risks would be driven by EtO emissions from sources not covered by the HON proposal. EPA intends to propose a rule soon to reduce emissions of EtO from commercial sterilization facilities. In addition, the Agency is working to develop proposed rules for other industries that emit EtO, including polyether polyols production, hospital sterilizers, and chemical manufacturing area sources.
- [Learn more about the risk and demographic assessments EPA conducted for the proposal.](#)

#### [Proposed emissions reduction requirements include improvements to flares](#)

- Chemical manufacturers use flares, sometimes called flare stacks, to burn off gases. Some flares are used to destroy air toxics. About 80 percent of the proposed air toxics and VOC

reductions would come from new requirements to improve the efficiency of flares that are used to control pollution.

- EPA is also proposing more protective standards for other equipment and processes that emit air toxics, including EtO and chloroprene. These include strengthened and updated standards for process vents, heat exchange systems, equipment leaks, and storage tanks.
- In addition, the Agency is proposing new emissions limits for dioxins and furans in all of the air toxics rules covered by the proposal. The rules currently do not regulate emissions of those pollutants.
- The proposal would remove 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 proposal would add work practice standards for periods of startup, shutdown and malfunction where appropriate.

### Costs and Benefits

- EPA's Regulatory Impact Analysis (RIA) for the proposal estimated the costs of implementing the proposed rules at approximately \$501 million in total capital costs and approximately \$190 million a year in total annualized costs. The annual costs include the value of product recovery. The bulk of the estimated costs would come from complying with the HON.
- The vast majority of the facilities covered by the proposal are owned by large corporations. The cost of implementing today's proposal would be less than 1 percent of their annual national sales.
- The RIA also estimated the value of the health benefits of reducing ozone as result of reducing VOC emissions. EPA estimates that the value of those benefits would be \$6.3 million in 2024 and could be as much as \$62 million (2021 dollars, 3 percent discount rate).
- The proposed rule would significantly reduce emissions of hazardous air pollutants. However, EPA is not able to estimate the monetary value of reducing air toxics emissions, including EtO and chloroprene. This means that the Agency cannot estimate the full dollar value of the benefits the proposal would yield, including the benefits of reducing the risk of cancer from exposure to those chemicals.

### Where to find more information

- Read the proposal, Regulatory Impact Analysis, and related information on EPA's [website for this action](#).