

# Final Amendments to Air Toxics Standards for Miscellaneous Organic Chemical Manufacturing: Fact Sheet

## ACTION

- On May 29, 2020, the U.S. Environmental Protection Agency (EPA) finalized amendments to the 2003 Miscellaneous Organic Chemical Manufacturing National Emission Standards for Hazardous Air Pollutants (NESHAP), known as MON.
- This action primarily applies to miscellaneous specialty chemical production and includes the following emission sources: process vents, storage tanks, equipment leaks, wastewater streams, transfer racks and heat exchange systems.
- Following a residual risk and technology review conducted under the Clean Air Act (CAA), EPA is finalizing:
  - correcting and clarifying regulatory provisions related to emissions during periods of startup, shutdown and malfunction (SSM), including eliminating exemptions during periods of SSM and finalizing alternative work practice standards for certain SSM events including for pressure relief device releases, visible emissions from flares operating above their smokeless capacity and storage vessel degassing operations;
  - adding requirements for ethylene oxide emissions from storage tanks, process vents and equipment leaks under the risk review given that residual risk was determined to be unacceptable;
  - strengthening requirements for heat exchange systems and equipment leaks under the technology review;
  - adding monitoring and operational requirements for flares that control ethylene oxide emissions and flares used to control emissions from processes that produce olefins and polyolefins, and also allowing facilities outside of this subset to opt into these flare requirements in lieu of complying with the current flare standards; and
  - requiring facilities to submit electronic copies of notification of compliance status reports and submit electronic copies of performance test results and reports.
- EPA estimates the finalized amendments will achieve hazardous air pollutant (HAP) emission reductions of 107 tons per year, which includes reductions in ethylene oxide emissions of approximately 0.76 tons per year.
- EPA also estimates that excess emissions of HAP from flares will be reduced by approximately another 260 tons per year.

## RESIDUAL RISK ASSESSMENT

- The CAA requires EPA to assess the risk remaining after application of the final air toxics standards. This is known as a residual risk assessment.
- Based on the completed risk assessment, available health information and associated uncertainties, EPA determined risks from the Miscellaneous Organic Chemical Manufacturing source category to be unacceptable.
  - At the current level of control required by the standard, the maximum individual cancer risk for inhalation is estimated to be 400-in-1 million (based on actual

emissions) and 800-in-1 million (based on allowable emissions) for the Miscellaneous Organic Chemical Manufacturing source category driven by ethylene oxide emissions from storage tanks, process vents and equipment leaks.

- The agency is finalizing requirements for storage tanks, process vents and equipment leaks with emissions of ethylene oxide and concludes that these controls will reduce cancer risks to an acceptable level that also achieves an ample margin of safety to protect public health.

## **TECHNOLOGY REVIEW**

- The CAA also requires EPA to assess, review and revise the air toxics standards as necessary, taking into account developments in practices, processes and control technologies since the standards were first issued.
- The technology assessment identified cost-effective developments in practices, processes and control technologies for heat exchange systems and equipment leaks and we are finalizing amendments under the technology review to control these emission sources further.

## **BACKGROUND**

- The CAA requires EPA to regulate HAP, also known as air toxics, from categories of industrial facilities in two phases.
- The first phase is “technology-based,” where EPA develops standards for controlling the emissions of air toxics from sources in an industry group (or “source category”). These maximum achievable control technology (MACT) standards are based on emissions levels that are already being achieved by the best-controlled and lower-emitting sources in an industry.
- Within 8 years of setting MACT standards, the CAA directs EPA to assess the remaining health risks from each source category to determine whether the MACT standards protect public health with an ample margin of safety and protect against adverse environmental effects. This second phase is a “risk-based” approach called residual risk. Here, EPA must determine whether more health-protective standards are necessary.
- Also, every 8 years after setting MACT standards, the CAA requires that EPA review and revise the standards, if necessary, to account for improvements in air pollution controls and/or prevention.

## **FOR MORE INFORMATION**

- To download a copy of the final rule notice, go to EPA’s website at the following address: <https://www.epa.gov/stationary-sources-air-pollution/miscellaneous-organic-chemical-manufacturing-national-emission>.