

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

### ACTION

- On November 6, 2019, the U.S. Environmental Protection Agency (EPA) announced the proposed amendments to the 2003 Miscellaneous Organic Chemical Manufacturing National Emission Standards for Hazardous Air Pollutants (NESHAP), known as MON.
- The proposed amendments will provide clarifications, corrections, and improved compliance and will reduce emissions of hazardous air pollutants (HAP) from the source category by 116 tons per year, which includes reductions in ethylene oxide emissions of approximately 10 tons per year. The proposed amendments will also reduce excess emissions of HAP from flares by approximately another 260 tons per year.
- Following a residual risk and technology review conducted under the Clean Air Act (CAA), EPA is proposing to:
  - Correct and clarify regulatory provisions related to emissions during periods of startup, shutdown and malfunction (SSM), including proposing to eliminate exemptions during periods of SSM and proposing alternative work practice standards for certain SSM events including releases from pressure relief devices;
  - Add requirements for ethylene oxide emissions from storage tanks, process vents and equipment leaks under the risk review;
  - Strengthen heat exchange system and equipment leak control requirements under the technology review;
  - Add 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 allow facilities to opt into these flare requirements in lieu of complying with the current flare standards; and
  - Require facilities to submit electronic copies of notification of compliance status reports and submit electronic copies of performance test results and reports.
- 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.
- EPA will accept comment on the proposed amendments for 45 days after publication in the *Federal Register*.

### ETHYLENE OXIDE RISK

- To further explain the uncertainties in the estimated cancer risks from ethylene oxide, EPA is also posting the *Memorandum: Sensitivity of ethylene oxide risk estimates to dose-response model selection*, which explores the range of models used in the ethylene oxide carcinogenicity assessment.
- This information provides important context for interpreting the risk results from the Residual Risk Assessment developed in support of this rule.

## **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.
- The maximum individual cancer risk for inhalation is estimated to be 2,000-in-1 million for the miscellaneous organic chemical manufacturing source category driven by ethylene oxide emissions from storage tanks, process vents, and equipment leaks.
- The agency is proposing to revise requirements for storage tanks, process vents and equipment leaks with emissions of ethylene oxide and propose that these controls will reduce cancer risks to an acceptable level that also achieves an ample margin of safety to public health and the environment.

## **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 proposing amendments under the technology review to control these emission sources further.

## **ADDITIONAL ACTIONS**

- This is the first regulatory action that EPA is taking to address ethylene oxide emissions under our two-pronged approach to reduce ethylene oxide emissions. In August 2018, EPA announced the two-pronged approach following the release of the National Air Toxics Assessment (NATA) which includes:
  - reviewing Clean Air Act regulations for facilities that emit ethylene oxide; and
  - getting additional information on ethylene oxide emissions.

## **BACKGROUND**

- The CAA requires EPA to regulate toxic air pollutants, 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 eight years of setting MACT standards, the CAA directs the 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 eight 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.

## HOW TO COMMENT

- EPA will accept comment on the proposal for 45 days after publication in the *Federal Register*. Comments, identified by Docket ID No. EPA-HQ-OAR-2018-0746, may be submitted by one of the following methods:
  - Go to <https://www.regulations.gov/> and follow the online instructions for submitting comments.
  - Send comments by email to: a-and-r-Docket@epa.gov, Attention Docket ID No. EPA-HQ-OAR-2018-0746.
  - Fax your comments to: (202) 566-9744, Attention Docket ID No. EPA-HQ-OAR-2018-0746.
  - Mail your comments to: EPA Docket Center, Environmental Protection Agency, Mail Code: 28221T, 1200 Pennsylvania Ave., NW, Washington, DC 20460, Attention Docket ID No. EPA-HQ-OAR-2018-0746.
  - Deliver comments in person to: EPA Docket Center, 1301 Constitution Ave., NW, Room 3334, Washington, DC. Note: In-person deliveries (including courier deliveries) are only accepted during the Docket's normal hours of operation. Special arrangements should be made for deliveries of boxed information.

## FOR MORE INFORMATION

- To download a copy of the proposed rule and the fact sheet, go to <https://www.epa.gov/stationary-sources-air-pollution/miscellaneous-organic-chemical-manufacturing-national-emission>.
- The action notice and other background information are also available either electronically at <https://www.regulations.gov/>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
  - The Public Reading Room is located at the EPA Headquarters library, room number 3334 in the EPA WJC West Building, 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m., eastern standard time, Monday through Friday, excluding federal holidays.
  - Visitors are required to show photographic identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
  - Materials for this proposed action can be accessed using Docket ID No. EPA-HQ-OAR-2018-0746.
- For further technical information about the rule, contact Tegan Lavoie at the EPA's Office of Air Quality Planning and Standards, at (919) 541-5110 or at [lavoie.tegan@epa.gov](mailto:lavoie.tegan@epa.gov).