FACT SHEET

Final Amendments to Air Toxics Standards for Flexible Polyurethane Foam Production and Fabrication

ACTION

- On October 29, 2021, the U.S. Environmental Protection Agency (EPA) finalized amendments to the 2003 National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Flexible Polyurethane Foam Fabrication Operations major source category and also to the 2007 NESHAP for the Flexible Polyurethane Foam Production and Flexible Polyurethane Foam Fabrication area source categories.
- The Flexible Polyurethane Foam Fabrication Operations major source category includes three facilities. Because of their potential to generate hazardous air pollutant (HAP) emissions, the processing units of interest at foam fabrication facilities are loop slitters and flame lamination units.
- The Flexible Polyurethane Foam Production and Operations area source categories together include approximately 32 facilities. EPA established one area source NESHAP that applies to the two area source categories because they are often collocated.
- Following a residual risk and technology review conducted under the Clean Air Act (CAA) for the major sources, EPA determined that risks from the source categories are acceptable and no new cost-effective controls are available.
- Following a technology review conducted under the CAA for both the major and area sources, EPA determined that there are no cost-effective developments that would further reduce air toxics.
- EPA is finalizing amendments to enhance the effectiveness of the standards by improving compliance and implementation. Specifically, EPA is:
    - Revising the definition of "HAP-based adhesive" so that major source new and existing loop slitters are prohibited from using adhesives containing one percent or more by weight of total HAP;
    - Requiring electronic reporting and more frequent performance testing;
    - Eliminating startup, shutdown and malfunction exemptions for existing sources of flame lamination.
- Also, EPA identified existing flame laminators as an unregulated emission source. Therefore, this action establishes a numeric limit of 1.45 lb/hr for hydrochloric acid (HCl) emissions and requires HCl emissions tests no less frequently than every five years.

RESIDUAL RISK ASSESSMENT

- The CAA requires EPA to assess the risk remaining after application of the final air toxics emissions standard. This is known as a residual risk assessment.
- Facilities in the Flexible Polyurethane Foam Fabrication Operations major source category emit hydrogen chloride, which is an acid gas and is the pollutant driving the risk assessment.

- No carcinogens are emitted by the Flexible Polyurethane Foam Fabrication Operations major source category. Therefore, the total estimated cancer incidence from all sources based on actual and allowable emission levels is zero excess cancer cases per year.
- The risk analysis shows that EPA did not identify a potential for adverse chronic noncancer health effects. In addition, the risk assessment indicates no significant potential for multipathway health effects.
- EPA determined that the remaining risk after application of the technology-based standards is acceptable and that the standards provide an ample margin of safety to protect public health and the environment.

TECHNOLOGY REVIEW

- The CAA requires EPA to assess, review and revise air toxics standards, as necessary, taking into account developments in practices, processes and control technologies.
- As a result of the technology review of the Flexible Polyurethane Foam Fabrication Operations major source standards and also of the Flexible Polyurethane Foam Production and Fabrication area source standards, EPA did not identify any cost-effective developments that would further reduce air toxics emissions beyond the original NESHAP.
- EPA identified one technology-related development that represents current industry practice, which is codified as a requirement in this action:
    - Total HAP content of adhesives currently used by new and existing loop slitters is below 1 percent by weight, rather than the 5 percent previously allowed in the major source rule.
    - This current industry practice will prevent backsliding but is not expected to yield any reductions in emissions.

BACKGROUND

- The CAA requires EPA to regulate hazardous 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 the 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 EPA to review and revise the standards, if necessary, to account for improvements in air pollution controls and prevention.

FOR MORE INFORMATION

- Interested parties can download a copy of the final rule notice from EPA's website at the following address: https://www.epa.gov/stationary-sources-air-pollution/flexible-polyurethane-foam-fabrication-operations-national-emission.
- Today's action and other background information are also available electronically at https://www.regulations.gov/, EPA's electronic public docket and comment system.
    - Materials for this final action can be accessed using Docket ID No. EPA-HQ-OAR-2020-0572.
- For further technical information about the rule, contact Ms. Lisa Sutton, EPA's Office of Air Quality Planning and Standards, at (919) 541-3450 or sutton.lisa@epa.gov .