FINAL AMENDMENTS TO THE AIR TOXICS STANDARDS FOR FLEXIBLE POLYURETHANE FOAM PRODUCTION FACT SHEET

ACTION

- On July 29, 2014, the Environmental Protection Agency (EPA) finalized amendments to the national emission standards for hazardous air pollutants (NESHAP) for flexible polyurethane foam production. Hazardous air pollutants, also known as air toxics, are known or suspected to cause cancer and other serious health and environmental effects.

- There are 12 flexible polyurethane foam production facilities covered by EPA's air toxic standards. These facilities produce polyurethane or rebond foam, which is used to make items such as seat cushions, tempurpedic pillows, and carpet backing. The three types of flexible polyurethane foam production covered by the standards include 1) slabstock, 2) rebond, and 3) molded.

- EPA originally issued regulations to control hazardous air pollutants from this source category in 1998. That rule set limits for auxiliary blowing agents (ABA) containing hazardous air pollutants and prohibited the use of HAP ABA in equipment cleaners and mold release agents. The 1998 rule reduced hazardous air pollutant emissions from these sources from 19,700 tons/year to 51 tons/year -- a 99% reduction.

- This review of the standards, known as risk and technology reviews, evaluated:
  - If better, new, improved or previously unidentified emission control approaches, practices or processes were available,
  - Whether additional emission reductions were warranted to protect health, and
  - If additional changes were needed to assure that the rule was accurate and legally defensible.

Residual Risk Assessment

- The Clean Air Act requires the EPA to assess the risk remaining after application of the final air toxic standards. This is known as a residual risk assessment.

- The residual risk assessment included the following analyses:
  - Estimates of individual source category risk.
  - Estimates of facility-wide risk.
  - Proximity analysis, which identified any overrepresentation of minority, low income or indigenous populations near facilities in the source category.
  - Risk estimates based on the actual emissions reported as emitted.
  - Risk estimates based on emissions allowed by the current air toxics standard.

- The results of EPA's risk assessment indicate that risks are acceptable for the source category with maximum risks less than 1-in-1 million for the source category based on actual emissions. Risks could be as high as 5-in-1 million based on the emissions allowed by the current standards for these sources.

- The results of EPA's facility-wide risk assessment indicate that risks are low, with maximum risks less than 20-in-1 million, and where the flexible polyurethane foam production source category is not a major contributor to facility-wide risks.

- No additional standards are necessary to provide an ample margin of safety to protect public health, and no revisions are needed based on the risk analysis.

- EPA's proximity analysis reveals that most demographic categories are below, or within 20 percent, of their corresponding national averages. The one exception is the African American population. The ratio of African Americans living within 3 miles of any source affected by this rule is 48 percent higher than the national average (19 percent versus 13 percent). EPA does not view this as a concern since risks from the source category are acceptable for all populations. Additionally, the proposed changes to the standard increase the level of environmental protection for all affected populations by ensuring no future emissions increases from the source category.

Technology Review

- The Clean Air Act requires the EPA to review and revise air toxics standards, as necessary, taking into account developments in practices, processes and control technologies since the EPA issued the standards.

- As part of the technology review, EPA found that slabstock foam facilities had discontinued use of HAP-based ABAs.

- The final rule codifies this industry practice and prohibits use of HAP-containing ABAs. The final rule reduces the allowable emissions of HAP from slabstock foam production facilities by 735 tons per year. Since all existing facility emissions are currently below allowable levels, EPA does not expect this amendment to achieve additional emissions reductions. It would, though, assure that emissions do not increase above this protective, lower limit.

Start-up, Shutdown, and Malfunction Provisions, Corrections and Clarifications

- The final rule amendments also:
  - eliminate the exemptions during periods of startup, shutdown, and malfunction to ensure the standards are consistent with the District of Columbia Circuit Court's vacatur of similar provisions in other rules, and remove affirmative defense provisions;
  - add requirements for reporting of performance testing through the EPA's Electronic Reporting Tool;
  - add a schedule for delay of leak repairs for valves and connectors;
  - revise compliance dates for applicable proposed actions; and
  - clarify the leak detection methods allowed for diisocyanate storage vessels at slabstock foam production facilities.

BACKGROUND

- The Clean Air Act requires the EPA to regulate toxic air pollutants, also known as air toxics, from large 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 MACT standards are based on emissions levels that are already being achieved by the controlled and low-emitting sources in an industry.

- Within 8 years of setting the MACT standards, the Clean Air Act 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 the MACT standards, the Clean Air Act requires that EPA review and revise the standards, if necessary, to account for improvements in air pollution controls and/or prevention.

- The previously-issued air toxic standards for these production processes are part of 96 air toxic standards (MACT) that require 174 industry sectors to eliminate 1.7 million tons of 187 toxic air pollutants. Congress listed these toxic air pollutants in the Clean Air Act.

FOR MORE INFORMATION

- To download a copy of the final rule, go to EPA's Worldwide Web site at: http://www.epa.gov/ttn/atw/foam/foampg.html.

- Today's action and other background information are also available either electronically at http://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 EPA Headquarters, room number 3334 in the EPA 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 final rule can be accessed using Docket ID No**.** EPA-HQ-OAR-2012-0510.

For further technical information about the rule contact Kaye Whitfield of EPA's Office of Air Quality Planning and Standards at (919) 541-2509 or whitfield.kaye@epa.gov.