FACT SHEET

Proposed Amendments to Air Toxics Standards for Iron and Steel Foundries

ACTION

- On September 13, 2019, the U.S. Environmental Protection Agency (EPA) proposed to amend the National Emission Standards for Hazardous Air Pollutants (NESHAP) for major source Iron and Steel Foundries (promulgated in 2004 and amended in 2008) and the NESHAP for area source Iron and Steel Foundries (promulgated in 2008).
- Iron and steel foundries manufacture castings by melting metal in a furnace and then pouring the molten metal into a mold of a desired shape. Molded products are used in car engines, construction and machinery, among other uses.
- Together, the major source and the area source NESHAP were estimated to reduce air toxics emissions by more than 865 tons per year (tpy) (40 percent reduction) and other pollutants (*e.g.*, particulate matter and volatile organic compounds) by about 2,930 tpy.
- Following a major source residual risk and technology review (RTR) and area source technology review conducted under the Clean Air Act (CAA), EPA is proposing no changes to the existing standards. EPA is, however, proposing minor amendments to enhance the effectiveness of the standards by improving compliance and implementation. Specifically, EPA is proposing to:
    - Revise requirements for periods of startup, shutdown and malfunction (SSM) to be consistent with recent court decisions; and
    - Require electronic reporting of performance test results.
- EPA will accept comment on the proposed amendments for 45 days after publication in the *Federal Register*.

RESIDUAL RISK ASSESSMENT

- For major sources, the CAA requires EPA to assess the risk remaining after implementation of the final technology-based air toxics emissions standards. This is known as a residual risk assessment.
- From the Iron and Steel Foundries source category, the inhalation cancer maximum individual risk (MIR) based on estimated actual emissions is 50-in-1 million mainly due to naphthalene from mold- and core-making lines, and benzene, polycyclic aromatic hydrocarbons and napthalene from the pouring, cooling and shakeout processes.
- An MIR of 50-in-1 million implies that up to 50 people out of 1 million equally exposed people could contract cancer if exposed continuously (24 hours per day) to the specific concentration over 70 years (an assumed lifetime). This would be in addition to cancer cases that would normally occur in 1 million unexposed people.
- Chronic noncancer hazard indices are less than or equal to 1. A hazard index of 1 or lower means air toxics are unlikely to cause adverse noncancer health effects over a lifetime of exposure.

- EPA determined the remaining risk after application of the technology-based standards is acceptable, and the standards provide an ample margin of safety to protect public and environmental health.

TECHNOLOGY REVIEW

- For both major and area sources, the CAA requires EPA to assess, review and revise air toxics standards as necessary, considering developments in practices, processes and control technologies.
- The technology review of the major source and area source NESHAP for Iron and Steel Foundries facilities did not identify any developments that would further reduce air toxics emissions beyond the original NESHAP.

BACKGROUND

- The CAA requires EPA to regulate toxic air pollutants, also known as air toxics, from categories of industrial facilities in two phases. The steps in these phases are different depending if the facility is a major source (emits at least 10 tpy of any single air toxic or 25 tpy of any combination of air toxics) or an area source (any stationary source of air toxics that is not a major source).
- 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." For major sources, these standards reflect application of the maximum achievable control technology (MACT) and are based on emissions levels that are already being achieved by the best-controlled and lower-emitting sources in an industry. For area sources, the technology-based standards are typically less strict, and usually reflect application of generally available control technology (GACT). However, there are some area source categories (such as chromium electroplating) for which EPA has promulgated MACT standards.
- *Residual Risk Assessment.* Within 8 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.
- *Technology Review.* Every 8 years after setting MACT and GACT standards, the CAA requires EPA to review and revise the standards, if necessary, to account for improvements in air pollution controls and prevention practices and technologies.

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-2019-0373, 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-2019-0373.
- Fax your comments to: (202) 566-9744, Attention Docket ID. No. EPA-HQ-OAR-2019-0373.
- 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-2019-0373.
- 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

- Interested parties can download a copy of the proposed rule notice from EPA's website at the following address: https://www.epa.gov/stationary-sources-air-pollution/iron-and-steel-foundries-national-emissions-standards-hazardous-air.
- Today's action 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 WJC West Building, 1301 Constitution Ave., 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-2019-0373.
- For further technical information about the rule, contact Phil Mulrine, EPA's Office of Air Quality Planning and Standards, at (919) 541-5289 or mulrine.phil@epa.gov.