

## FACT SHEET

### FINAL RULE TO REDUCE AIR TOXICS EMISSIONS FROM AREA SOURCE IRON AND STEEL FOUNDRIES

#### ACTION

- On December 14, 2007, the Environmental Protection Agency (EPA) issued air toxics standards for area sources in the iron foundries and steel foundries industries. Iron foundry area sources include smaller-emitting facilities that produce final shape castings from various grades of iron. Steel foundry area sources include smaller-emitting facilities that produce final shape steel castings by the melting, alloying, and molding of raw iron and steel scrap.
- Area sources are those that do not emit or have the potential to emit more than 10 tons per year (tpy) of a single toxic air pollutant or more than 25 tpy of any combination of air toxics, also called toxic air pollutants.
- The final rule reflects EPA's decision to minimize the impact on small entities by subcategorizing foundries based on production capacities.
  - EPA subcategorized existing foundries based on 20,000 tpy of metal melting capacity. Existing facilities with greater than 20,000 tpy capacity must comply with emissions limits and apply pollution prevention management practices. Facilities with less than 20,000 tpy capacity are required to apply the pollution prevention management practices only.
  - For new affected sources, EPA subcategorized foundries based on 10,000 tpy of annual metal melt capacity. A new affected source that has an annual metal melt capacity greater than 10,000 tpy must comply with emissions limits and apply pollution prevention management practices. New facilities with less than 10,000 tpy capacity are required to apply the pollution prevention management practices only.
- The emission limits are 0.8 pounds of particulate matter per ton of metal melted for a furnace at an existing source, or 0.1 pounds of particulate matter per ton of metal melted for a furnace at a new source. Uncontrolled furnaces in this subcategory may have to install add-on controls to meet this limit.
- Emissions limits in the final rule will reduce emissions of a number of air toxics such as lead, nickel, manganese, and chromium compounds, which are known or suspected to cause cancer, other serious health problems and environmental damage.
- Pollution prevention management practices will reduce emissions of other air toxics such

as volatile organic compounds and mercury, by preventing the use of certain materials as furnace charge and by removing mercury switches from automobile bodies. Management practices will eliminate the use of methanol as a component of binder formulations. Pollution prevention management practices apply to both existing and new sources.

- EPA estimates that 344 of the 427 foundries fall within the 20,000 tpy or less subcategory and 83 fall within the 20,000 tpy or greater subcategory.

## **HEALTH AND ENVIRONMENTAL BENEFITS AND COSTS**

- Existing area sources that will be affected by the rule are currently minimally controlled or uncontrolled.
- The final rule will provide important improvements in protecting human health and the environment by reducing emissions of toxic air pollutants. EPA estimates total annual air toxic reductions at 14 tpy, and total particulate matter emissions reductions at about 380 tpy.
- The total nationwide capital cost for this rule is about \$17 million with an annualized cost of \$4.8 million. EPA does not anticipate that this rule would impose a significant impact on a substantial number of small entities. No small facility is expected to incur an economic impact greater than 3 percent of its revenue.

## **BACKGROUND**

- The Clean Air Act requires EPA to identify categories of industrial sources that emit one or more of 187 listed toxic air pollutants. These industrial categories include both larger emitting (major) and smaller emitting (area) sources. Area sources in the iron and steel industry sectors are the subject of this final rule.
- The Clean Air Act directs EPA to limit emissions of air toxics from industrial and commercial facilities. This final rule responds to the following Clean Air Act requirements.
  - **The EPA must identify at least 30 toxic air pollutants that pose the greatest threat to public health in urban areas.** Air toxics are of special concern in urban areas because so many people live, work, and play near multiple pollution sources. The EPA identified 33 toxic air pollutants emitted by major, mobile and area sources in urban areas. Area sources emit significant amounts of 30 of these pollutants. (See <http://www.epa.gov/ttn/atw/urban/list33.html> for the full list.)
  - **The EPA must identify and list the industrial and commercial source categories that emit 90 percent of the air toxics in urban areas.** The EPA sets emissions standards for industrial categories, not individual pollutants. The EPA

listed 70 area source categories and developed the Integrated Urban Air Toxics Strategy to implement reductions. For more information, go to <http://www.epa.gov/ttn/atw/urban/urbanpg.html>.

- **For smaller emitting sources, the EPA can develop standards requiring the use of generally available control technologies (GACT) or management practices rather than the maximum achievable control technology (MACT) required for major sources.** The standard in the final rule to reduce other toxic metal compounds emitted by iron and steel area sources uses GACT.
- The EPA has already set standards for 28 area source categories and is under a series of court-ordered deadlines to set more.

#### **FOR MORE INFORMATION**

- To download a copy of the final rule, go to EPA's Worldwide Web site at: <http://www.epa.gov/ttn/oarpg/t3pfpr.html>.
- For further information about this rule, contact Mr. Conrad Chin of EPA's Office of Air Quality Planning and Standards at (919) 541-1512 or [chin.conrad@epa.gov](mailto:chin.conrad@epa.gov).