

February 28, 2003

## FACT SHEET

### FINAL RULE TO REDUCE TOXIC AIR EMISSIONS FROM COKE OVENS

#### TODAY'S ACTION

- ! The Environmental Protection Agency (EPA) is issuing a final rule to reduce emissions of toxic air pollutants from coke oven batteries. Toxic air pollutants, or air toxics, are known or suspected to cause cancer and other health problems.
  
- ! Coke is used in blast furnaces in the conversion of iron ore to iron, which can be further refined to produce steel. Coke plants produce coke from coal, using coke oven batteries. A battery consists of a group of ovens connected by common walls.
  
- ! The requirements of this rule are based on the equipment and procedures in place at well-controlled coke oven batteries. The rule allows facility owners and operators flexibility to comply with its requirements by using a combination of techniques including pollution prevention, work practices and control devices.
  
- ! Today's final rule focuses on reducing air toxics from coke oven processes known as pushing, quenching, and from battery stacks.
  - < **Pushing.** Pushing is the process of removing the coke from the oven after the coal has been coked. The rule places ovens with emissions exceeding an opacity trigger under scrutiny until they are repaired or taken out of service. The degree that light can pass through a stream of air emissions, or opacity, can be used as a measurement of pollutant content. Darker emissions suggest higher pollutant concentrations. For facilities that use control devices, EPA also is establishing emission limits for particulate matter as a measure of the device's level of performance.
  
  - < **Quenching.** During quenching, the coke is cooled by deluging it with water. To reduce toxic air emissions from this process, sources are required to use water meeting certain criteria for quenching, meet a limit for total dissolved solids in the quench water, equip quench towers with control devices known as baffles, and inspect and repair baffles on an ongoing basis.
  
  - < **Battery stacks.** The rule establishes opacity limits and requires the installation and operation of continuous opacity monitors for battery stacks. In addition, all batteries are required to operate at all times according to an operation and maintenance plan to ensure good operation and maintenance of batteries and control equipment.

- ! Today's rule includes a number of monitoring requirements to ensure that air toxic emissions are reduced. Performance tests are also required at least twice during each 5-year permit term for a control device applied to pushing emissions.
- ! Existing facilities must comply with this rule within 3 years after its publication in the *Federal Register*.

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

- ! This rule will reduce toxic air emissions from pushing, quenching, and battery stacks by about 290 tons per year - a 43 percent reduction from current (i.e., 2002) levels.
- ! The air toxics reduced by this rule include polycyclic organic matter, polynuclear aromatic hydrocarbons, benzene, toluene and xylene. The health effects associated with exposure to these air toxics can include cancer, leukemia, central nervous system effects, and acute health disorders such as respiratory and skin irritation.
- ! EPA estimates the total annualized costs for plant owners and operators to comply with the rule to be \$20 million, including costs for rebuilding ovens, monitoring, recordkeeping and reporting. The Agency anticipates that the rule will increase the price of furnace coke by almost 3 percent and decrease U.S. production by 4 percent. Two batteries producing furnace coke may close as a result of the rule.

## **BACKGROUND**

- ! The Clean Air Act requires EPA to identify categories of industrial sources that emit one or more listed 188 toxic air pollutants.
- ! This rule applies to each new or existing coke oven battery at any coke plant that is considered a major source of toxic air emissions. Major sources are those that emit 10 tons per year or more of a single toxic air pollutant, or 25 tons or more of a combination of toxic air pollutants.

## **FOR MORE INFORMATION**

- ! To download a copy of the rule, go to EPA's World Wide Web site at <http://www.epa.gov/ttn/oarpg/> under newly proposed or issued rules.
- ! For further information about the final rule, contact Ms. Lula Melton of EPA's Office of Air Quality Planning and Standards at (919) 541-2910 or [melton.lula@epa.gov](mailto:melton.lula@epa.gov).

! EPA's Office of Air and Radiation's homepage on the Internet contains a wide range of information on the air toxics program, as well as many other air pollution programs and issues. The Office of Air and Radiation's home page address is: <http://www.epa.gov/oar/>.