

FACT SHEET

FINAL RULE TO REDUCE TOXIC AIR EMISSIONS FROM TACONITE IRON ORE PROCESSING FACILITIES

ACTION

- ! On August 25, 2003 the Environmental Protection Agency (EPA) issued a final rule to reduce emissions of toxic air pollutants from taconite iron ore processing facilities. Toxic air pollutants, or air toxics, are those pollutants known to cause cancer or other serious health effects.
- ! A taconite iron ore processing facility separates and concentrates iron ore from taconite, a low-grade iron ore, and produces taconite pellets, which are approximately 60 percent iron.
- ! At present, eight taconite iron ore processing facilities are operating in the United States, with six plants located in Minnesota, and two in Michigan. This rule will apply to each of these facilities.
- ! This final rule focuses on reducing air toxics from four sources at these facilities: ore crushing and handling, ore drying, pellet handling, and indurating furnaces - where the taconite pellets are hardened and oxidized. Emissions from the indurating furnaces account for over 90 percent of all toxic air pollutants emitted from a taconite iron ore processing facility.
- ! The requirements of the rule are based on the equipment and procedures in place at well-controlled taconite ore processing facilities. The rule allows facility owners and operators flexibility to comply with its requirements by using a combination of techniques including work practices, emission averaging and control devices.
- ! The final rule establishes particulate matter emission limits from process stacks for both existing and new taconite iron ore facilities. The particulate matter emission limits are a surrogate for the air toxic emissions targeted by this rule. Particle emissions are easily and accurately measured. In addition, the levels of particle emissions closely track the levels of air toxics emissions targeted for reduction by this rule.
- ! Air emissions that do not pass through a stack or vent are considered “fugitive”. The final standards for fugitive dust sources such as stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas and yard areas are in the form of work practice and operating standards.
- ! This 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 indurating furnaces.

- ! EPA developed this rule through participation with representatives from the affected industry and representatives of the states of Minnesota and Michigan
- ! Existing facilities must comply with the rule within 3 years after its publication in the *Federal Register*.

HEALTH AND ENVIRONMENTAL BENEFITS AND COSTS

- ! This rule will reduce emissions of air toxics, including compounds containing manganese, chromium, cobalt, arsenic, and lead.
- ! Chronic, or long term, exposure to high levels of manganese results primarily in central nervous system effects. Chronic breathing of arsenic compound is associated with lung cancer and irritation of the skin and mucus membranes. Chronic exposure to lead compounds can result in adverse effects on the blood, central nervous system, blood pressure, and kidneys. Children are particularly sensitive to lead exposure, resulting in reduced growth.
- ! This rule will reduce air toxic emissions by about 42 percent from existing levels.
- ! EPA estimates the capital cost of the final rule for all affected facilities will be about \$ 57 million (approximately \$ 7 million per facility). The estimated total annualized costs for all affected facilities will be about \$ 9 million (approximately \$ 1 million per facility). .

BACKGROUND

- ! The Clean Air Act requires EPA to regulate emissions of 188 listed toxic air pollutants. For major sources (those with the potential to emit 10 tons annually or more of a listed pollutant or 25 tons or more of a combination of pollutants), EPA is required to develop standards that require the application of stringent air pollution controls.
- ! EPA has identified the taconite iron ore processing source category as a major source of air toxics.

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 Mr. Conrad Chin of EPA's Office of Air Quality Planning and Standards at (919) 541-1512. or chin.conrad@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/>.