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FACT SHEET

PROPOSED AIR TOXICS RULE TO CONTROL EMISSIONS FROM SECONDARY ALUMINUM PRODUCTION PLANTS

TODAY'S ACTION...

- ◆ The Environmental Protection Agency (EPA) is proposing a rule to reduce hazardous air pollutants emitted from secondary aluminum production plants. Hazardous air pollutants, also known as air toxics, are those pollutants known or suspected to cause cancer or other serious health and environmental effects.
- ◆ Secondary aluminum plants recover aluminum from scrap such as beverage cans, foundry returns, and dross to make other aluminum products such as alloy ingots, billets, notched bars, shot, hot metals, and hardners. Air toxics are released from operations such as scrap shredding, chip drying, scrap drying/decoating/delacquering, furnace operations (i.e., melting, holding, refining, fluxing, or alloying), and cooling.
- ◆ EPA developed the proposed rule in partnership with industry representatives and associated groups including the Aluminum Association, State agencies, and STAPPA/ALAPCO (State and Territorial Air Pollution Program Administrators/ Association of Local Air Pollution Control Officials).

WHAT WOULD BE THE HEALTH AND ENVIRONMENTAL BENEFITS OF THIS RULE?

- ◆ Secondary aluminum plants emit a variety of toxic air pollutants. These air toxics vary by facility and process operations but may include up to eleven hazardous air pollutant metals, organics such as dioxin/furans, and acid gases such as hydrogen chloride and chlorine. The health effects associated with exposure to these air toxics can include cancer, respiratory irritation, and damage to the nervous system.
- ◆ The proposed rule would reduce nationwide emissions of air toxics by about 12,500 tons per year, a reduction of nearly seventy percent from current levels.
- ◆ Hydrogen chloride emissions would be reduced by about 12,460 tons per year, which represents a seventy-four percent reduction. Hazardous air pollutant metals would be reduced by about forty tons per year - a reduction of over sixty percent from current levels. Emissions of dioxin/furans would be reduced by about 1.5 pounds per year, which represents a reduction of more than eighty-five percent. Particular sites would achieve even greater reductions.
- ◆ Other benefits of this proposed rule would include a decrease in emissions of

non-hazardous air pollutants such as particulate matter. Emissions of particulate matter would be reduced by about 5,860 tons per year or by over sixty percent from existing levels. These reductions would result in lower occupational exposure levels for employees in this industry.

BACKGROUND

- ◆ Under the Clean Air Act Amendments of 1990, EPA is required to regulate sources of 188 listed toxic air pollutants. (Note that this list originally referenced 189 pollutants, but EPA has subsequently removed the chemical caprolactam from the list.) On July 16, 1992, EPA published a list of industrial source categories that emit one or more of these air toxics. For listed categories of "major" sources (those that emit ten tons/year or more of a listed pollutant or twenty-five tons/year or more of a combination of pollutants), the Clean Air Act requires EPA to develop standards that require the application of stringent air pollution reduction measures known as maximum achievable control technology.
- ◆ EPA's published list of industry groups (known as "source categories") to be regulated includes secondary aluminum production plants.
- ◆ The Clean Air Act also requires EPA to list and finalize standards for categories of sources emitting seven specific pollutants, including dioxin/furans. Secondary aluminum production plants were listed as sources of one or more of these pollutants.

WHO WOULD BE AFFECTED BY THIS PROPOSED RULE?

- ◆ The proposed standard would apply to each secondary aluminum production plant that is a major source of emissions of air toxics. In addition, each secondary aluminum production plant that is an area source would be subject to limitations on emissions of dioxin/furans.
- ◆ The proposed standard would not apply to facilities in SIC 336 (Nonferrous Foundries/Casting), such as manufacturers of aluminum die castings (SIC 3363) that use only clean aluminum and aluminum foundries (SIC 3365) that process only clean aluminum.
- ◆ Affected sources include each new and existing scrap shredder, chip dryer, scrap dryer/delacquering/decoating kiln, group 2 furnace, sweat furnace, dross-only furnace and rotary dross cooler. Other affected sources include each new group 1 furnace, new in-line fluxer and each secondary aluminum processing unit (comprising existing group 1 furnaces and existing in-line fluxers).
- ◆ The EPA has identified more than 400 secondary aluminum production facilities. Based on available information about secondary aluminum production plants, EPA estimates

that eighty-six facilities are major sources of emissions of air toxics.

WHAT WOULD THIS PROPOSED RULE REQUIRE?

- ◆ EPA's proposed rule would establish emission standards for particulate matter, hydrogen chloride, and total hydrocarbons for secondary aluminum plants that are major sources. The proposed rule uses particulate matter as a surrogate for metals, total hydrocarbons as a surrogate for organics, and hydrogen chloride as a surrogate for total emissions of hydrogen chloride and chlorine. Emission standards also are proposed for dioxin/furans for affected sources at secondary aluminum plants that are major or area sources.
- ◆ New and existing affected sources can achieve the emission reductions required by the proposed standard through the use of a fabric filter, a lime-injected fabric filter, or an afterburner, depending on the type of source. Pollution prevention/work practice standards and operating requirements also are included in the proposed rule.
- ◆ Plants would also have to comply with new monitoring, recordkeeping, and reporting requirements in the proposed rule.

HOW DOES THE PROPOSED RULE PROVIDE FLEXIBILITY TO INDUSTRY?

- ◆ EPA's rule provides flexibility to the industry by offering a choice of compliance and monitoring options. Surrogates (emissions that are more easily monitored and are associated with emissions of the targeted pollutant) are used to reduce the monitoring and emissions testing costs.
- ◆ Compliance options include emission limits or performance standards, alternative standards, and averaged emission limits for some affected sources.
- ◆ Alternative monitoring plans are available for some affected sources.

WHAT WOULD BE THE COST OF THIS PROPOSED ACTION?

- ◆ EPA expects the implementation of this regulation to result in \$148 million in capital costs with total annual costs of \$68 million. The monitoring, recordkeeping, and reporting costs are estimated at \$5.1 million per year.

FOR MORE INFORMATION...

- ◆ Interested parties can download the proposed rule from EPA's web site on the Internet under "recent actions" at: <http://www.epa.gov/ttn/oarpg>. For further information about the proposal, contact Mr. Juan Santiago of EPA's Office of Air Quality Planning and Standards at (919) 541-1084.

- ◆ The EPA's Office of Air and Radiation's (OAR's) home page on the Internet contains a wide range of information on the air toxics program and many other air pollution programs and issues. The OAR's home page address is: <http://www.epa.gov/oar>.