

FINAL RULE TO REDUCE TOXIC AIR POLLUTANTS FROM MERCURY CELL CHLOR-ALKALI PLANTS

ACTION

- On August 25, 2003, the Environmental Protection Agency (EPA) issued a final rule to reduce emissions of mercury from mercury cell chlor-alkali plants. There are nine of these facilities located in eight states.
- Mercury cell chlor-alkali plants produce chlorine and caustic using mercury cells. Caustic is used to neutralize acidic compounds.
- The final rule will reduce mercury air emissions from existing emission points within mercury cell chlor-alkali plants by 1,500 pounds per year - a 74 percent reduction from current levels. The final rule also requires rigorous work practice standards such as periodically washing down work floors and covering waste containers. These requirements will reduce mercury emissions from so called “fugitive sources” throughout the plants. Although EPA is not able to accurately quantify the reductions associated with these work practice standards, these requirements will reduce mercury air emissions industrywide.
- Mercury is a pollutant of particular concern because it is highly toxic, persists in the environment and bioaccumulates. Human exposure to mercury occurs primarily through the food chain. Exposure can cause health problems in humans and animals including birth and developmental effects. Exposure is also associated with neurological effects such as tremors, nervousness, insomnia, neuromuscular changes and memory loss.
- EPA estimates the total annual costs for facilities to comply with the final rule will be \$2.2 million, including cost for new control devices, monitoring, recordkeeping and reporting. No facility or company is expected to close as a result of the final rule. The small scale of the impacts suggests that there will also be no significant impacts on markets for the products made using chlorine or caustic.
- Existing facilities must comply with the final rule within 3 years after its publication in the Federal Register.

BACKGROUND

- The final rule reduces mercury and other toxic air emissions from mercury cell chlor-alkali plants that are considered “major sources” of hazardous air pollutants as well as facilities considered to be “area sources.”
- Area sources are those sources that emit less than 10 tons annually of a single hazardous air

pollutant or less than 25 tons or more annually of a combination of hazardous air pollutants. Mercury cell chlor-alkali plants is one of the area source categories included for control in EPA's Urban Air Toxics Strategy.

- The Clean Air Act requires EPA to identify categories of facilities that emit seven specific air pollutants (including mercury). EPA is required to develop national standards that control air emissions from the categories of sources that together emit at least 90% of these 7 pollutants. Chlor-alkali plants are among the source categories listed to achieve the 90 percent goal for mercury.
- The Clean Air Act also requires EPA to identify categories of industry or "source categories" that emit one or more listed 188 hazardous air pollutants. EPA identified mercury cell chlor-alkali plants as a source category emitting one or more toxic air pollutants.
- For major sources within each source category, the law requires EPA to develop standards that restrict emissions to levels consistent with the lowest-emitting (also called best-performing) plants.
- Major sources are those that emit 10 tons a year or more of a single toxic air pollutant or 25 tons a year or more of a combination of air toxics. EPA estimates that about eight refractory products manufacturing facilities are major sources.

FOR MORE INFORMATION

- To download a copy of the final 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. Iliam D. Rosario of EPA's Office of Air Quality Planning and Standards at (919) 541-5308 or rosario.iliam@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 homepage address is: <http://www.epa.gov/oar/>.