

FACT SHEET

Proposed Amendments to Air Toxics Standard: Mercury Emissions from Mercury Cell Chlor-Alkali Plants

ACTION

- On May 30, 2008 the Environmental Protection Agency (EPA) proposed amendments to the Agency's 2003 air toxics standard for mercury emissions from chlorine producers using mercury cell technology. The proposed amendments respond to a petition for reconsideration.
- EPA estimates that mercury emissions have been reduced by approximately 88 percent from the pre-2003 levels, including reductions from plant closures.
- The proposed rule describes a study EPA conducted as part of the reconsideration. The purpose of the study was to better characterize fugitive mercury emissions from the cell room. The findings include the following:
 - Daily cell room mercury emissions range from approximately 20 g/day to 1,300 g/day, with an average of less than 500 g/day per facility (or around 0.2 tons per year).
 - The 2006 industry estimate of "unaccounted for" mercury was less than 3 tons, as opposed to 65 tons reported for 2000.
 - A forced conversion to non-mercury technology is not economically reasonable for this industry. The average capital cost of conversion is approximately \$68 million per plant (\$340 million nationwide).
 - Not all facilities can measure air flow due to cell room roof vent configurations including highly variable flow rates and patterns. Setting an enforceable emissions limit is not technically feasible due to current building configurations.
- In addition to describing the study, the proposed amendments would establish the requirement that all facilities implement both a cell room monitoring program and work practices. Work practices would include activities such as implementing an inspection program for equipment problems; leaking equipment; liquid mercury accumulations and spill; and cracks in floors and pillars and beams.
- For the work practices the proposed amendments would:
 - Eliminate the recordkeeping requirements associated with the routine inspections and other work practice activities.
 - Require a weekly certification that work practices were followed.
- For the cell room monitoring program, the original Maximum Available Control Technology (MACT) required that the cell room "action level" be set at the 75th percentile of monitoring data collected for the first 30 days after the compliance date. The proposed amendments would raise this level to the 90th percentile in order to reduce time spent on "chasing" alarms and allow more time for maintenance activities to avoid ever reaching this action level.

- Also for the cell room monitoring program, the proposal would:
 - Require that a new action level be established semi-annually to account for seasonal differences in ambient conditions and cell room ventilation configurations.
 - Require that the action levels be based on 14 to 30 days of data. During the 14- to 30-day period when setting the cell room action level, detailed records of the work practices performed are required.
- The proposed amendments would require thermal recovery units to continue to comply with the controls and monitoring requirements in the rule after mercury cells are shut down or converted.
- EPA will accept public comments for 60 days following publication of the proposed rule in the Federal Register.

BENEFITS AND COSTS

- EPA estimates that only one facility will incur costs as a result of these proposed amendments. The estimated capital cost is about \$120,000, and estimated total annual cost is slightly more than \$25,000 per year.
- EPA believes that as these plants continue to increase their knowledge of the causes of fugitive mercury emissions in the cell room through operation of the cell room monitoring program, mercury emissions will continue to steadily decrease.

BACKGROUND

- When EPA issued the 2003 MACT, the industry consisted of 12 mercury cell facilities. Currently, there are only 5 facilities in operation (Augusta, Georgia; Charleston, Tennessee; New Martinsville, West Virginia; Ashtabula, Ohio; and Port Edwards, Wisconsin). These mercury cell facilities produce less than 5% of chlorine produced in the United States, which is made by mostly non-mercury methods.
- The original MACT standards established a cell room monitoring program to address mercury emissions as an alternative to the work practice program.
- In February 2004, Natural Resources Defense Council (NRDC) and other interested parties filed reconsideration petitions of the MACT, specifically relating to uncertainty in fugitive mercury air emissions.
- EPA responded to the reconsideration petition in 2006 by performing a test study to measure fugitive mercury air emissions. In 2007, EPA agreed to publish a proposed reconsideration response in May 2008 and a final response in May 2009.

FOR MORE INFORMATION

- Interested parties can download the proposal from EPA's web site on the Internet under "recent actions" at the following address: <http://www.epa.gov/ttn/oarpg>
- Today's proposed amendments and other background information are also available either electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
 - The Public Reading Room is located in the EPA Headquarters, Room Number 3334 in the EPA West Building, located at 1301 Constitution Ave., NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding Federal holidays.
 - Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
 - Materials for this action can be accessed using Docket ID EPA-HQ-OAR-2002-0017.
- Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2002-0017, by one of the following methods:
 - <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
 - E-mail: a-and-r-docket@epa.gov.
 - Fax: 202-566-9744,
 - Mail: Environmental Protection Agency, EPA Docket Center (EPA/DC), Air and Radiation Docket and Information Center, Mail Code: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460. Please include two copies.
 - Hand Delivery: U. S. Environmental Protection Agency, EPA West (Air Docket), 1301 Constitution Avenue, Northwest, Room 3334, Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.
- For further information about the proposed amendments regarding Mercury Cell Chlor-Alkali Plants, contact Dr. Donna Lee Jones of EPA's Office of Air Quality Planning and Standards (OAQPS) at (919) 541-5251 or Jones.Donnalee@epa.gov.