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August 11, 2008

NESHAP for Mercury Emissions from Mercury Cell Chlor-Alkali Plants Docket
U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC), Air and Radiation Docket
Mail Code 2822T
1200 Pennsylvania Ave, NW
Washington, D.C. 20460-0001

Re: Docket No. EPA-HQ-OAR-2002-0017
Comments by The Chlorine Institute – National Emission Standards for Hazardous
Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants

Dear Madam/Sir:

The Chlorine Institute, Inc. ("CI" or "Institute") submits the following comments on the U.S. Environmental Protection Agency's ("EPA's" or "the Agency's") Proposed Amendments to National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants. *See* 73 Fed. Reg. 33,258 (June 11, 2008).

The Chlorine Institute, Inc., founded in 1924, is a 220-member, not-for-profit trade association of chlor-alkali producers, packagers, distributors, users, and suppliers worldwide. The Institute's mission is to promote safety and the protection of human health and the environment in the manufacture, distribution, and use of chlorine, sodium hydroxide, potassium hydroxide, sodium hypochlorite, plus the distribution and use of hydrogen chloride. The Institute's producer members account for approximately 98 percent of the total chlorine production capacity in the United States and 100 percent of the mercury cell chlor-alkali facilities operating in the United States.

The Chlorine Institute has worked cooperatively over the past several years with EPA regarding both the original 2003 Mercury Cell MACT as well as these proposed changes. This cooperation has included intensive fugitive emissions monitoring and validation of continuous emission monitoring equipment (as documented in the *Federal Register* notice). Our members are also committed to continuous improvement in plant operations. We have demonstrated that commitment by making significant reductions in mercury usage by voluntary participation in EPA's Great Lakes Binational Toxics Strategy. Since 1996, we have achieved a documented 95 percent mercury use reduction, far exceeding our reduction commitment of 50 percent, and we are dedicated to continuing these reductions wherever feasible. While the Chlorine Institute is generally supportive of the proposed changes to the 2003 Mercury Cell MACT, we do have some concerns relating to certain sections of the proposed regulation. Specific comments about portions of the proposed rule are presented in the following text.

I. Requiring Facilities to Certify the Work Practice Standards and Also Implement the Cell Room Monitoring Program is Overly Burdensome and Unnecessary

A. Continuous Emissions Monitoring Technology is Much Improved

In its October 2, 2002 comments on the original 2003 Mercury MACT, the Chlorine Institute and its members stated their opposition to the requirement for continuous emissions monitoring (“CEM”) for mercury in the cell room. As explained in those comments (found in the docket), the chlor-alkali industry believed that the work practice standards were enough to minimize emissions. More importantly, the industry believed that the state of the continuous emissions monitoring technology was inadequate and therefore the CEM requirement was unachievable.

Since CI’s 2002 comments the industry has voluntarily worked with the Agency and supported the development of improved methods to monitor and manage cell room fugitive emissions. The EPA’s validation studies and the industry’s experience with CEM for this application, showing that new monitoring devices have greater effectiveness and operational reliability, support EPA’s logic to require the units as a best practice. The chlor-alkali industry’s position on continuous cell room monitoring has changed for this reason and we support the use of CEMs.

The original 2003 Mercury MACT approach of requiring either work practices or cell room CEM provided the flexibility needed for mercury cell facilities to achieve compliance with work practices in the face of unproven CEM technology. Testing performed by EPA at mercury cell facilities and industry experience since then have demonstrated that CEM offers an enhanced routine monitoring of cell room conditions as well as improved ability to identify and address variable emissions on a timely basis.

B. Certification of Work Practices Standards are Unnecessary and Overly Burdensome

In light of the improvement in CEM technology it seems illogical to require certification of work practices already in place. A CEM program has proven to be more effective than work practices alone by directing attention to specific operational locations requiring attention.

The proposal (See 73 *Fed. Reg.* 33,276) notes that chlor-alkali facilities already perform both work practices and cell room monitoring; therefore there should be no additional impact or burden on facilities. This assumption is flawed. Generally, it is true that chlor-alkali facilities currently monitor work practices in addition to the performance of cell room monitoring. But the proposed changes will require facilities to perform “weekly checklists certifying that the work practices are being performed.” Certification requires a high standard of recordkeeping that will force facilities to establish additional administrative systems for no other reason than to document and keep records. This additional burden will provide no actual improvement in performance.

The Chlorine Institute recommends that EPA consider a CEM program adequate to drive conscientious monitoring and continuous improvement without adding the redundant and unnecessary administrative burden of “certified” work practices.

II. Requiring Recalculation of Cell Room Monitoring Action Levels Every Six Months Imposes Additional Recordkeeping and Reporting Requirements that Are Unwarranted and Unnecessary

EPA states in the preamble to the proposed rule, as justification for this proposed change, that they "...realize that ambient conditions (temperature, humidity, etc.), and the seasonal reconfiguration of the cell rooms can have a significant impact on the cell room concentration" (See 73 *Fed. Reg.* 33,272). The Chlorine Institute disagrees with this EPA statement. In fact, industry's experience with continuous cell room monitoring has shown that there is no significant seasonal variation in mercury concentration readings from a cell room. It is to be noted that the chlor-alkali industry originally expected seasonal variation in the mercury cell room emissions but this has not proven to be the case.

Also, the findings of EPA's own study, summarized in the report entitled "Summary of 2005 Cell Room Mercury Emissions Data for Occidental Chemical Company Mercury Cell Chlor-Alkali Plants: Delaware City, Delaware and Muscle Shoals, Alabama", dated March 2008, indicate that, if there is a correlation, it is a weak one, at best. The report (at page 7) contains the following statement in Section 3.0, Preliminary Findings:

The preliminary findings of the analyses of mercury emissions and other plant information for the OxyChem Delaware City and Muscle Shoals plants are: (1) mercury emissions from the cell room are consistently lower than the historical assumption of 1,300 grams per day, (2) *there appears to be a weak correlation ($r^2=0.224$ and 0.389 for Delaware and Muscle Shoals, respectively) between higher ambient temperature and mercury emissions from cell rooms*, and (3) *there is no obvious correlation between fugitive mercury emissions from the cell room and production, humidity, or any plant activities thought to impact emissions (e.g., maintenance activities)*. [Emphasis added.]

EPA's own findings do not substantiate the statement made in the preamble that "...ambient conditions (temperature, humidity, etc.)... can have a *significant* impact on the cell room concentration". [Emphasis added.]

Therefore, it is the Chlorine Institute's position that requiring facilities to reestablish their continuous monitoring action levels every six months is an unnecessary burden that results in no additional reduction in emissions. If the EPA believes it is necessary to establish a periodic schedule for facilities' to re-evaluate their action levels, then the re-evaluation should be no more frequent than a facility's Title V permit renewal, similar to the schedule for other air emission compliance tests.

III. The Proposed Methodology for Recalculation of the Action Level Will Put Facilities in Jeopardy of “Non-Compliance”

It may be the Agency’s intention to create an action level recalculation algorithm that pushes each individual facility to a place at which its cell room fugitive emissions are as low as technically feasible. The Chlorine Institute does not disagree with any reasonable efforts to minimize mercury emissions, what CI does take issue with is a system which requires a facility to develop an action level that it will ultimately be able to meet only 90 percent of the time. Under the currently proposed action level methodology, when a facility’s emissions hit bottom the action level is statistically set so that a facility will violate its action level at least ten percent of the time. It is the goal of the chlor-alkali industry to be within compliance 100 percent of the time. Even though this action level is not a permit limit, exceeding an action level is not considered a favorable occurrence by any regulated entity. In addition, oversight by most third-parties would misinterpret such exceedances thus creating unfavorable and unnecessary public relations. With that in mind, the Institute asks the Agency to develop an action level setting algorithm that is not designed to eventually put a facility in jeopardy of “non-compliance.”

IV. The Chlorine Institute Strongly Supports EPA’s Proposed Change to Set the Cell Room Monitoring Action Level at the 90th Percentile of the Data Set

As the EPA has described in the preamble (*See* 73 Fed. Reg. 33,272), with an action level set at the 75th percentile of the data set, plant resources are frequently expended investigating and documenting action level exceedences that ultimately are determined to be caused by normal process variations. Changing the set point for the action level to a 90th percentile of the data set will help eliminate alarms caused by normal variation in cell room concentration levels. Industry can then better assure that their resources are available and will quickly respond to alarms caused by real issues.

V. Current State of Continuous Emissions Monitoring Equipment Does Not Possess the Capability to Accurately and Reliably Monitor Mercury Recovery Units

Unlike the cell room CEM experience, the application of this technology for mercury recovery unit (“MRU”) operations has not been proven across multiple installations with independent test verification; therefore, the Chlorine Institute believes it is premature to establish a regulatory condition requiring the use of CEM systems for MRUs. MRUs operate with more traditional stacks that easily facilitate the use of previously established emissions monitoring methods (where cell room ventilation system designs rarely have one emissions point). Facility operators should be allowed the flexibility to use other approved EPA methods to demonstrate compliance (e.g. EPA Method 101).

One mercury cell facility’s experience with a CEM installed on an MRU has shown that this technology is not yet fully developed for this application. The mix of batch feed to a continuous MRU operation causes variable emission concentrations from the unit while operating within the

August 11, 2008

Page 5

compliance standard proposed. Current CEM technology requires a shift from one calibration curve to a second at the mid range of operational experience with the one installed unit. Diligent work with the equipment supplier has yet to establish the desired reliability at this transition point to justify the mandate for use of CEM in this application. For this reason it would seem prudent to allow use of other EPA approved methods to demonstrate compliance to the MRU emissions standard.

Thank you for the opportunity to submit these comments. If you have questions or comments, please do not hesitate to contact us. I can be reached at the address on the letterhead, by email ddunlap@CL2.com or phone at 703-741-5765.

Sincerely,

A handwritten signature in black ink, appearing to read "David D. Dunlap". The signature is fluid and cursive, with the first name "David" being the most prominent part.

David D. Dunlap
Vice President
Health, Environment, Safety & Security