

(Logo) The Chlorine Institute, Inc

October 15, 1999 *via overnight delivery*

Document Control Office (7407)
Office of Pollution Prevention and Toxics (OPPT)
U.S. Environmental Protection Agency Headquarters (5305W)
401 M Street, SW
Washington, DC 20460

Dear Sirs or Madams:

RE: Docket Control Number OPPTS-00276

The Chlorine Institute appreciates the opportunity to comment on the draft of the second phase of the North American Regional Action Plan (NARAP) for mercury (Action Plan) as discussed in the September 16, 1999 Federal Register and as made available by the Commission for Environmental Cooperation (CEC). The Chlorine Institute has been a participant on the CEC mercury activities since they began. The Institute applauds the public process through which the CEC has conducted its business and encourages that future work continue through this established, transparent process.

The Chlorine Institute, Inc. (hereafter "the Institute"), founded in 1924, is a 235-member, not-for-profit trade association of chlor-alkali producers worldwide, as well as packagers, distributors, users, and suppliers. The Institute's mission is the promotion of safety and the protection of human health and the environment in the manufacture, distribution and use of chlorine, sodium hydroxide, potassium hydroxide and sodium hypochlorite, plus the distribution and use of hydrogen chloride. The Institute's North American Producer members account for more than 98 percent of the total chlorine production capacity of the U.S., Canada, and Mexico. In the United States, approximately 12% of the chlorine is produced by the mercury cell process.

The Institute is in general support of the Phase II Action Plan draft dated August 17, 1999. The Institute supports Action item 2c specific to the mercury cell chlor-alkali sector. Enclosed are the second Annual Report submitted to EPA in May of this year and the first Annual Report submitted in May of 1998. In the future, the Institute will provide the CEC a copy of the Annual Report when it is submitted to EPA. The Institute would be glad to meet with CEC to discuss these or future reports as CEC desires.

The Institute is concerned about the inclusion of Appendix 1 in the Action Plan and believes this appendix should be removed from the final plan. In the definition section of the Action Plan, the appendices are stated to be not integral to the report. This appendix appears to be a collection of thoughts made by one or more individuals at one of the workshops held in 1998. When specific ideas or recommendations were made, there was no discussion on their appropriateness by fellow workshop participants. They were simply captured by the facilitators. While many of the ideas and recommendations may be appropriate ones for the CEC to pursue, others are not. If the CEC believes it is necessary to record all ideas and recommendations, they should be recorded in a separate document. Subsequently, these ideas and recommendations should be discussed with the interested parties, preferably at a workshop, to determine whether and how they should be pursued.

The Institute wishes to point out two recommendations specific to the chlor-alkali industry contained in Appendix 1 that are of concern.

- v Recommendation 16 proposes a time line, after 2005, that the industry should commit to for phasing out mercury cell technology. The Institute believes it is premature to put such a specific post 2005 action step on a plan being considered in 1999. Progress made in the pre-2005 period addressing mercury concerns by, not only the chlor-alkali industry, but also other groups should be assessed before determining such specific post-2005 recommendations.

- v Recommendation 38 suggests that only caustic soda made from the membrane process be used in municipal wastewater treatment plants. Such a recommendation should not be technology based. If such an issue needs to be addressed, it is more logical to establish a maximum level of mercury in the caustic soda. Currently membrane cell technology represents only about 15% of the caustic soda capacity in North America. More than 70% of the caustic soda is produced using diaphragm cell technology which uses no mercury in the production. There is no reason for the Action Plan to recommend any action that might preclude caustic soda users from using such a product from any chlor-alkali process.

The Institute recommends these two recommendations be removed from Appendix 1 or from the separate document that the Institute has suggested be used for capturing of recommendations appropriate for discussion by the CEC and the concerned publics.

If you have any questions concerning these comments, please contact Arthur E. Dungan, Vice President - Safety, Health, and Environment at the address on the letterhead. His direct line is 202-872-4730. His e-mail address is <adungan@CL2.com>.

Sincerely yours,

(signature)
Robert G. Smerko

cc: Mr. Jorge Ocana
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encs.

REPORT TO EPA

May 14, 1999

This is the second annual report by the Chlorine Institute to the United States Environmental Protection Agency detailing the progress made by the Institute's member chlor-alkali mercury cell plants towards meeting the commitment industry made to the US EPA. The Chlorine Institute, on behalf of its members, has committed to reduce mercury use in the chlor-alkali industry by 50%. The average annual mercury usage for the 1990 – 1995 period was 160 tons. This is the basis for the reduction. The goal is to reduce mercury usage to 80 tons per year by the year 2005. In addition, it was agreed to submit to EPA, on an annual basis, a report describing the progress made by the various task groups in their technical activities.

Mercury use declined during the reporting year, 1998. The attached Table 1 provides the quantitative results. Although it was stated at the initiation of this effort that the use reduction would not be linear and that there could be variation up or down year to year, there has been an annual decline reported for each year of the program. Mercury purchases are somewhat higher than use. However, these purchases can be accounted for by identifiable and measurable increases in virgin or process mercury inventories. Through 1998, mercury use reduction has yielded a drop of 35% from the baseline. There have been numerous reasons for this, individual company efforts, as well as impact from task group activities.

The group efforts resulted in 34 meetings involving 45 people, amounting to more than 1,000 work hours in meetings alone. Outlined below are reports on task group activities, Chlorine Institute facilitated events, and some specific member projects shared with all producers.

Background information on the various committees, subcommittees and task groups, and two work products are included in the appendices.

Miscellaneous Activities

The Institute and its members were involved in several meetings in 1998 with EPA and other groups that are not included in the 34 meetings indicated above discussing the mercury reduction commitment, the Binational Strategy as it relates to mercury, proposed NESHAP revisions, possible changes to the RCRA regulations as they pertain to mercury containing wastes, and international initiatives related to the transport of atmospheric mercury. These meetings included the following:

- United Nations Economic Commission for Europe Meetings (Geneva, Switzerland) pertaining to the Heavy Metals protocol
- EPA Region 1 and New England governors meetings pertaining to mercury concerns in the northeast (Boston, MA)

- Meetings with EPA's Office of Air Quality Planning and Standards in discussing possible changes to the mercury NESHAP (Durham, NC)
- Commission for Environmental Cooperation meeting on mercury issues in North America (Mexico City, Mexico)
- Meetings with the Office of Solid Wastes discussing possible changes to RCRA regulations pertaining to mercury containing wastes (Washington, DC area)
- Meetings on the Binational Strategy (BNS) (Fredericton, NB and Chicago, IL)
- Meeting with EPA to update progress made in 1998 (Chicago, IL)

Additionally, the Institute facilitated visits by EPA personnel to five mercury cell producer sites in 1998 pertaining to the proposed NESHAP and RCRA changes. The Institute assisted EPA in facilitating the collection of data pertaining to the NESHAP revisions from all fourteen mercury cell producers.

A mercury issues workshop addressing the mercury reduction commitment and related activities was held and attended by nearly 100 people in 1998. A workshop addressing mercury emission control (operating) techniques was planned in 1998 and held in February of this year. Thirty four people, primarily involved with operations and maintenance within cell houses, shared information on ways to reduce mercury releases to the environment.

Individual efforts by several companies were shared with all mercury cell chlor-alkali producers. A cell database to track maintenance issues, mercury collection, and materials life and a mercury guidance document to enhance handling techniques were developed. These were provided to all Chlorine Institute mercury cell producers and made available to other members. The guidance document was provided to EPA in our October meeting. The Chlorine Institute members will be modifying this document to provide a more generic document suitable for any mercury cell chlor-alkali facility. Another member provided a technical report on how it measured mercury emissions from the cell house. That member provided the report to its state agency and EPA's Office of Air Quality Planning and Standards. The report was shared with the Institute's members. It is being reviewed by the Mercury Emissions Control and Measurement Task Group as that group continues to evaluate options for quantitative measurement of mercury emissions from cell houses.

The Institute and the mercury cell chlor-alkali producers are encouraged by the progress made to date in achieving the mercury use reductions. We have committed significant resources in this effort and will continue to do so. However, we believe future reductions will be more difficult to achieve and not come so quickly. We continue to be fully committed to achieve the 50% reduction.

Table 1

Chlor-Alkali Mercury Cell Process - USA Only

	1990	1991	1992	1993	1994	1995	Average 1990-95	1996	1997	1998
Total Mercury Purchased - pounds	407,890	330,209	231,872	133,219	268,731	406,517	296,406	242,015	323,500	340,658
Total Mercury Purchased - tons	204	165	116	67	134	203	148	121	162	170
US Gov Hg Consump (C/A) data-tons	272	203	230	198	149	170	204	150	176	not avail.
Total Mercury Used - pounds	443,024	350,702	296,292	207,066	291,077	330,488	319,775	273,659	235,096	208,863
Total Mercury Used - tons	222	175	148	104	146	165	160	137	118	104
Annual Cl2 Capacity - Tons/yr	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total number of Hg cells	762	762	762	762	762	762	762	762	762	762

Data (except for government purchase data) are for the fourteen currently operating facilities.

Note: 1 ton = 2,000 pounds

APPENDICES

Appendix A - Mission Statements of Various Groups

Board Committee on Mercury Issues (BCMI)

The Institute's Board of Directors established an ad hoc Board Committee on Mercury Issues (BCMI) to insure that appropriate oversight is given to monitoring progress being made to achieve the commitment. Reporting to the BCMI is a technical subcommittee, the Mercury Issues Management subcommittee (MIMSC).

Mercury Issues Management Subcommittee (MIMSC)

The mission of the Mercury Issues Management Subcommittee (MIMSC) is to address proactively safety, health, and environmental issues that will impact the manufacture and use of chlor-alkali products produced by the mercury cell process. The subcommittee will develop and promote practices that will assist the users of this technology in the achievement of the goal to reduce mercury usage by 50% and in the continued protection of human health and the environment. MIMSC established seven (7) technical task groups to carry out its mission. These include the following:

The Mercury Emissions Control and Measurement (MECM) Task Group

The mission of the Mercury Emissions Control and Measurement (MECM) Task Group is to identify control techniques that can be used by member companies to further reduce mercury emissions from the cell rooms and to identify a protocol that is technically feasible to measure mercury emissions from cell room operations.

The Mercury Balance Task Group

The mission of the Mercury Balance task Group is to develop a guidance document for the conducting of accurate mercury balances, to monitor information received from members pertaining to such accounting, and to recommend appropriate future Chlorine Institute administration.

The Mercury Health Issues Task Group

The mission of the Mercury Health Issues Task Group is to address issues of concern pertaining to the health effects to employees potentially exposed to mercury.

The Mercury Containing Wastes Task Group

The mission of the Mercury Containing Wastes Task Group is to address regulatory issues of concern pertaining to mercury-containing wastes and to interact with EPA concerning regulatory proposals.

The Mercury Cell Rubber Lining Task Group

The mission of the Mercury Cell Rubber Lining Task Group is to develop a pamphlet to assist members in evaluating rubber lining services pertaining to potential mercury contamination.

The Mercury in Sodium Hydroxide – Current Technology Task Group

The mission of the Mercury in Sodium Hydroxide – Current Technology Task Group is to develop an Institute guidance document providing recommendations for mercury cell producers to consider to reduce mercury in caustic soda to a level of 0.020 ppm.

The Mercury in Sodium Hydroxide – New Technology Task Group

The mission of the Mercury in Sodium Hydroxide – New Technology Task Group is to identify and evaluate new technologies for further reducing the mercury content of sodium hydroxide to the lowest practical level economically achievable

APPENDIX B - Task Group Progress Reports

- **The Mercury Emissions Control and Measurement (MECM) Task Group**

The MECM Task Group continued working with EPA in the development of the new mercury NESHAPS for mercury cell chlor-alkali facilities and the implementation of the Binational Strategy agreement for mercury. The task group conducted the following activities concerning the development of the new mercury NESHAP:

- Met with EPA and its contractor in Research Triangle Park, NC to discuss EPA's intent for the new mercury NESHAP regulation (April, 1998).
- Worked with EPA and its contractor in scheduling visitations to five mercury cell facilities (May-June 1998).
- Assisted EPA in gathering mercury survey questionnaire data from all

fourteen mercury cell chlor-alkali facilities in the U. S.

The task group conducted the following activities toward implementation of the Binational Strategy Agreement:

- Participated in an EPA two-day workshop in Boston (March, 1998) on mercury cell technology.
- Participated in meetings with EPA's Office of Air Quality Planning and Standards and Great Lakes National Program Office (Region V) in Chicago (October and November, 1998).
- Developed plans for and conducted one-day industry workshop at member company to identify best control techniques for reducing mercury emissions from cell rooms (February, 1999).
- Researched technologies to determine feasible means to measure quantitatively mercury emissions from cell houses.
- Conducted one-day technical workshop for EPA's contractor, industry's contractor, EPA personnel, industry personnel and Chlorine Institute personnel at member company facility to address mercury emissions from cell rooms (February, 1999).

In 1999 the MECM Task Group will focus on the following two objectives:

- The issuance of a guidance document identifying the best control techniques that can be used by member companies toward further reductions of mercury emissions from cell rooms
- The identification of a protocol (If technically feasible) that can be used by member companies to measure mercury emissions from cell room operations

The task group will also continue to participate in the development of the new mercury NESHAP by continuing to interface with EPA and their contractor.

- **The Mercury Balance Task Group**

The guidance document has been developed and a copy is attached. This task group has now sunset. Its monitoring function will be assumed by the Mercury Issues Management Subcommittee.

- **The Mercury Health Issues Task Group**

The task group completed and issued an Institute publication, Guidelines to Physicians in Conducting Mercury Medical Surveillance Programs. This publication complements another publication, Guidelines: Medical Surveillance and Hygiene Monitoring Practices for Control of Worker Exposure to Mercury in the Chlor-Alkali Industry. This group also monitored the activities of the interagency meeting in Research Triangle Park, NC in November concerning the assessment of health effects from exposure to mercury.

- **The Mercury Containing Wastes Task Group**

The Mercury Wastes Task Group continued with its mission of addressing regulatory issues of concern pertaining to mercury-containing wastes and interacting with EPA concerning regulatory proposals. The following solid waste issues were addressed:

- Phase IV Land Ban Regulations
- Re-invention of Land Ban Regulations (June, 1998 EPA Round table)

- **The Mercury Cell Rubber Lining Task Group**

This task group completed its objective with the issuance of the Chlorine Institute Pamphlet 154, Guidelines for the Handling of Rubber-Lined Cell Parts Potentially Contaminated with Mercury, issued in January, 1998. With its objective accomplished, this task group has sunset.

- **The Mercury in Sodium Hydroxide Task Group – Current Technology**

Information has been developed by the task group and provided to the membership. The information developed will be consolidated into a guidance document being prepared by the following task group.

- **The Mercury in Sodium Hydroxide – New Technology Task Group**

This task group conducted extensive research on removing mercury from sodium hydroxide. The information developed will be compiled in an Institute guidance document providing information on techniques that have been successful in bench scale tests to lower the mercury content of 50% sodium hydroxide below 5 - 10 ppb. As stated above, a consolidated internal guidance document describing both optimization of existing filtration technology and newly developed laboratory techniques will be prepared.

APPENDIX C - Guidelines for Conducting a Mercury Balance

The document is attached.

APPENDIX D - Guidelines to Physicians in Conducting Mercury Medical Surveillance
Programs

The pamphlet is attached.