

**Assessment of Pollution Prevention Opportunities for Mercury in Rhode Island
Health Related Industries.**

Principle Investigators

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Problem and Research Objectives

In June of 1997, the Conference of New England Governors and Eastern Canadian Premiers identified the release of mercury as an important public health and environmental issue that needed further study. Current scientific data indicate that mercury is present in freshwater fish at levels that pose potential health risks to people, and certain species of fish, eating wildlife. In May of 1998 a Mercury Action Plan was drafted that included 45 recommendations to address a regional goal of elimination of the discharge of anthropogenic mercury into the environment. The Rhode Island Department of Environmental Management has an Action Plan involving cooperation and input from the Office of Waste Management, the Office of Air Resources, and the Office of Technical and Customer Assistance. Among the works in the Action Plan are:

1. Preparing fact sheets providing information about strategies or products which reduce the use of mercury.
2. Conduct a mercury audit at a major Rhode Island hospital for the purpose of developing a source reduction/pollution prevention plan.
3. Conduct an outreach and educational program to transfer the results of the mercury audit and impact of a source reduction/pollution prevention program.
4. Evaluate the effectiveness of existing mercury collection and recycling efforts and develop strategies to increase the effectiveness of existing state and local efforts.

The Rhode Island Water Resources Center cooperates with the Office of Technical and Customer Assistance of the RI Department of Environmental Management in carrying out some of the works of the Action Plan. Specifically the objectives are (1) to evaluate the sources of mercury that are disposed of in medical waste including wastewater and solid waste, and (2) to reduce the amount of mercury emitted from Rhode Island hospitals and health related facilities by recommending proper source reduction and waste handling methods.

Methodology

The Water Resources Center will work with the engineers and staff from the Office of Technical and Customer Assistance in mercury pollution assessment. The activities will include identifying medical facilities, compiling mercury data, auditing a major hospital in mercury pollution, and conducting the outreach and education programs.

Principal Findings and Significance

At the time this progress report is prepared, the project is in its fourth month. Up to that time, the following have been accomplished:

1. Identifying all Rhode Island medical facilities which contribute to medical waste incineration.
 2. Contacting representatives of these facilities to discuss participation in the project.
 3. Through literature survey and contact with various government and hospital/health facilities, compile a list of mercury containing products, a list of mercury containing chemicals, and a list of mercury containing cleaning supplies. The lists are part of a mass database for the entire mercury pollution reduction/prevention program.
 4. Has scheduled and will present findings in a Mercury Reduction and Pollution Prevention in Hospitals Workshop on April 20, 1999.
 5. Will continue updating the mass database, carrying out auditing of mercury pollution in a major hospital, recommend actions to be taken in mercury reduction/prevention for health facilities, and conduct outreach/education programs for technology transfer.
- The project is expected to continue throughout the year of 1999.

Descriptors

Toxic Substance, Pollution Control

Articles in Refereed Scientific Journals

Book Chapters

Dissertations

Water Resources Research Institute Reports

Conference Proceedings

Poon, Calvin P. C., Proposed Actions Taken by Hospitals in Mercury Pollution Prevention, Conference, Mercury Reduction and Pollution Prevention in Hospitals, April, 1999.

Other Publications