



Positions on Public Policy Virtual Elimination, Chemical Sunsets and Bans

The Council of Great Lakes Industries (CGLI) supports establishing a voluntary, consensus-based process, with multi-stakeholder participation, to address the implementation of the virtual elimination strategy in the Great Lakes Basin based on the principles outlined below.

Background

The Great Lakes Water Quality Agreement between the United States and Canada calls for the virtual elimination of persistent toxic substances (PTSs) from discharges into the Great Lakes. The International Joint Commission (IJC) established a Virtual Elimination Task Force (VETF) to recommend how to proceed with implementation of the strategy for virtual elimination (VE). The VETF report was submitted to the IJC at their biennial meeting in October 1993 and endorsed by them in their Seventh Biennial Report. Both U.S. and Canadian federal, state and provincial agencies are currently developing mechanisms and policies to implement virtual elimination.

Principles

The Great Lakes ecosystem should be protected from the accumulation of persistent bioaccumulative toxic substances (PBTs) that pose an unreasonable risk to human health or the environment. CGLI supports the goal of virtually eliminating discharges of PBTs utilizing a risk-based process for prioritization and action. The process of virtual elimination must focus on a prioritized scheme for reducing discharges of PBTs to the Great Lakes ecosystem below threshold levels that cause adverse effects.

The concept of banning or sunseting entire families of substances (such as all chlorinated organics) is not appropriate, realistic or practical. Since each substance displays its own unique set of chemical, physical, toxicological and transport/fate characteristics, logic dictates that each substance be considered on an individual scientific basis. The Michigan Environmental Science Board recently released a report entitled "Impacts of Chlorine Use on Environmental and Public Health" that supports this view, and rejects the concept of grouping of chemical substances based solely on the consideration of a single property, e.g. the presence of chlorine.

A well defined set of criteria, developed with the input of all stakeholders, must be established for a screening process to determine which substances should be identified as persistent, toxic and bioaccumulative. Information for ranking and prioritizing substances for potential discharge reductions and/or further review under the virtual elimination process should include characteristics of aquatic, wildlife and human toxicity, persistence in the environment, and bioaccumulation potential.

If consensus is reached on the need to reduce discharge loadings and/or take other risk reduction measures on a voluntary basis during or after the screening phase, then actions and programs would be developed on an accelerated basis.

Implementation of a virtual elimination strategy requires a well defined decision-making process. This process must establish the priority for taking action on specific substances and provide a range of risk

management options based on hazard, exposure, benefits/availability of lower risk substitutes, and economic/social impact. Substances would undergo initial screening, and then further review on a prioritized basis to determine whether or not their discharge or use pose an unreasonable risk to human health or the environment. The resultant ranking of substances based on risk would provide a reasonable basis for immediate voluntary discharge/release reduction programs.

The Lakewide Management Planning (LaMP) program should be utilized to identify the most important sources of discharge of priority PBTs, including both point and nonpoint sources, so that targeted, cost-effective risk reduction measures can be developed. Use of a multi-media approach and mass balance modeling will allow identification of major sources and pathways, and reveal whether or not discharge reductions will truly reduce unacceptable impacts or allow attainment of threshold levels.

Programs such as the chemical industry's voluntary Responsible Care initiative can provide protection of the Great Lakes ecosystem. The codes of management practice embodied in the Responsible Care commitment require that risk characterization (hazard and exposure assessment) and risk management evaluations for chemical products be performed and undergo periodic re-evaluation and updating. As new information on hazard or exposure potential is generated, or significant new uses are found for existing products, a review is triggered to ensure that risk management measures are modified, if necessary, to protect human health and the environment.

In most cases, available risk management options, such as source reduction, recycling or enhanced control techniques should be appropriate and sufficient to address discharges of PBTs. For those PBTs for which environmental or human health impacts cannot be adequately managed in the Great Lakes Basin with available risk management tools and options, either product uses should be limited, or the substance's manufacture, sale, and use should be phased out. Before proceeding with restrictions or phaseout options, available substitute substances must be identified and evaluated for environmental and health risks as well as social and economic impacts. Both the beneficial and adverse aspects of each substance should be compared before decisions are finalized. Life cycle assessment may prove to be a useful tool in facilitating these comparisons.

The virtual elimination strategy should rely, wherever possible, upon existing voluntary programs, such as those described below, which can provide appropriate information and risk reduction/management opportunities. Examples of voluntary discharge reduction initiatives include:

Canada:

- ARET (Accelerated Reduction/Elimination of Toxins) program currently being implemented in Canada
- Metal Finishing Pollution Prevention Project
- Canadian Automobile Manufacturing Pollution Prevention Project

United States:

- IPT (Industrial Toxics Program) 33/50 program currently in place in the U.S.
- Automobile industry Pollution Prevention Project
- Many of the member companies of CGLI are participating in these voluntary programs.
- If voluntary risk reduction measures prove insufficient, or if consensus cannot be reached, existing regulations provide a framework for resolution.
- Mandatory risk reduction measures could then be taken under the United States Toxic Substances Control Act (TSCA) and/or the Canadian Environmental Protection Act (CEPA).

Issued: October 1994