

DIOXIN PREVENTION & REDUCTION

PROGRESS ON REDUCING HEXACHLOROBENZENE IN THE ONTARIO GREAT LAKES BASIN

Thomas Tseng

Toxics Prevention Division, Environmental Protection Branch, Ontario Region, Environment Canada,
4905 Dufferin Street, Downsview, Ontario M3H 5T4, CANADA; e-mail: Tom.Tseng @ec.gc.ca

Introduction

The Canada-Ontario Agreement of 1994 and the Canada/U.S. Binational Toxic Strategy of 1997 were established for the purpose of promoting the virtual elimination of a small number of persistent, bioaccumulative and toxic substances. This paper is a brief summary of the progress made since the late 1980's on reducing the releases of one of the priority substance - Hexachlorobenzene (HCB) in the Ontario Great Lakes basin. It also discusses major sources reduced and the remaining priority source sectors for further reductions .

Methods and Materials

A HCB release profile or an inventory of anthropogenic sources has been developed and updated since 1995 to track release reductions; using 1988 as the base year, the HCB profile is based on chemical and pesticide use patterns, emission factors, effluent sampling and stack testing results of major source sectors. The HCB profile has been shared with major source sectors to solicit their input and comments. Latest submissions to the National Pollutant Release Inventory by Canadian companies are also used to compare and verify release estimates.

Results and Discussion

In Canada, commercial use of HCB fungicides was discontinued in 1972, and commercial use of HCB in some chemical manufacturing processes [eg. chlorinated solvents, graphite anodes technology] also discontinued in 1980's;

These are the two major sources that contributed the significant reductions of HCB releases (> 60 %) in the Ontario Great Lakes basin since the late 1980's; other important sources are cement kilns, iron and steel plants, waste incineration and wood burning;

"Best Estimates" for major HCB releases will be presented together with data gaps and differences between data sources;

Remaining source reduction opportunities, current and anticipated Canada Wide Standards and efforts affecting HCB release reductions will be summarized.

References

The Great Lakes Binational Toxics Strategy: 2001 Annual Progress Report, www.binational.net;
Hexachlorobenzene Sources, Regulations and Programs for the Ontario Great Lakes Basin; draft report prepared by Benazon Environmental Inc. for Environment Canada, July, 2000;

Third Report of Progress under the Canada-Ontario Agreement respecting the Great lakes Basin Ecosytem 1997-199; www.cciw.ca/glimr/intro.html.

