

**Workplan for the Dioxin/Furan Workgroup
Great Lakes Binational Toxics Strategy
2003-2005**

The Dioxin/Furan Workgroup under the Great Lakes Binational Toxics Strategy (GLBTS) has been tasked with preventing and reducing releases of dioxins and furans in the Great Lakes Basin. Progress on our national challenge goals since the implementation of the GLBTS has been significant. Many of our larger sources have been addressed through a combination of regulations, national and regional programs, and outreach efforts. However, information gaps on dioxin release remain for a number of other sources. In order to continue working towards our ultimate goal of virtual elimination, we will continue to gather information and to look for opportunities to prevent releases of dioxin in the Basin. This document was developed to guide our workgroup's efforts for the next two years. This list is not exclusive, but instead aims to assist the group in setting goals and timelines for achieving our tasks.

1. Report on Sources Addressed via National Programs

The workgroup will continue to track and update the GLBTS stakeholders on national programs (i.e. MACT and Canada-wide Standards) which are addressing major sources of dioxin. We will follow progress on implementing these standards and the reductions achieved.

2. Characterize Sources of Concern Within the Basin

To determine which sources have the most impact on the Great Lakes Basin, we have previously used national release inventories for Canada and the U.S. An Ontario release inventory has also been developed. However, numerous sources of dioxin/furans exist which have not been characterized and included in the inventory. We will work together with our national programs to compile a comprehensive and comparable inventory of dioxin/furan releases in the Basin. In addition, we will use available stack test data to assess dioxin releases to the environment and review monitoring data to track the trends in dioxin/furan concentrations. A list of poorly characterized sources for dioxins/furans is attached. This information will be gathered from sources including:

- The U.S. 2000 National Dioxin Inventory
- The Canadian National Release Inventory of PCDD and PCDF
- The Ontario Release Inventory of PCDD and PCDF
- Canada's National Pollutant Release Inventory
- U.S. Toxics Release Inventory
- Stack test information

3. Outreach to Sources/Sectors of Interest

New Sources

As previously described, there are many sectors on which we still need to gather information in relation to dioxin/furan releases. We will continue our inventory effort, however, it would also be advantageous to the workgroup to foster relationships with those actively involved in certain sectors. The purpose of engaging these sectors could have multiple benefits, including but not limited to educating the workgroup on sector processes and releases, and awareness in the sector of the GLBTS effort.

Backyard Trash Burning

One sector which continues to be an ideal project for our Workgroup's effort is education and outreach on the concern of burn barrels in the Basin. The Burn Barrel Subgroup is actively engaging partners on this issue in order to educate the public on the dangers of burning trash in the environment. Reducing the use of burn barrels in the Basin will be a long process in effectively changing the behavior of residents. The Burn Barrel Subgroup is committed to sharing our message of education, infrastructure, and enforcement over time, and will work in conjunction with our national programs.

Out-of-Service Treated Wood

Secondary uses of PCP treated wood was identified as a potential source of dioxins/furans in the Great Lakes Basin by the Dioxin/furan Workgroup. The workgroup would like to explore the opportunity of establishing a pilot promotion campaign to educate the public and industry on proper use and handling of used treated wood to reduce the health and environmental impact in the Great Lakes Basin. This may involve the review and updating of existing Consumers Information Sheets, and to promote them by increasing CIS distribution and other communications activities. The D/F Workgroup will review the issue and develop an implementation plan in conjunction with the national leads on the treated wood issue. The plan may take a holistic approach and go beyond the PCP preservative issues, ie. include creosote and CCA issues.

4. Explore Pathway Intervention

According to the draft U.S. Dioxin Reassessment, food is the key source of human exposure to dioxins and furans. In the US and Canada, over 95 percent of dioxin intake is estimated to come through dietary intake of animal fats. Small exposure levels occur from inhalation, inadvertent ingestion of soil and from absorption through the skin. Levels of dietary intake and human tissue levels of dioxin appear to be declining in the U.S. and Canada. The workgroup will gather information on dioxin/furan levels in food in the Great Lakes Basin, and if warranted, identify the major pathways of entry into the food system and methods to intervene these pathways.

5. Identify Joint Priorities Between Workgroups

Based on current information, many sources of dioxin are also linked with other pollutants of concern to the Great Lakes. In particular, the Benzo(a)pyrene/Hexachlorbenzene Workgroup have similar issues to the Dioxin/Furan

Workgroup since combustion processes are key sources to both sets of substances. The workgroup leaders will develop a plan to coordinate on issues which overlap between the groups.

Many sources in the Basin, while not driven specifically by dioxin, may include dioxin in a group of Level I chemicals under the GLBTS. One example of this is landfill emissions. We will work to share information between the workgroups on these types of sources.

6. Investigate Coplanar PCBs

Earlier efforts of the workgroup have focused on the dioxins and furans exclusively, however, the category of coplanar PCBs is estimated to be approximately 1/3 of the human dioxin exposure equation. These substances are also targeted for reduction under other international initiatives such as the Stockholm Convention under the United Nations Environment Program and the North American Regional Action Plan for Dioxins/Furans and Hexachlorobenzene. The workgroup will initiate a plan to look at the issue of coplanar PCBs in the Great Lakes Basin by first compiling available information on source and environmental data. We will coordinate our effort with the PCB Workgroup under the GLBTS.

7. Science

Environmental monitoring of dioxins and furans is being conducted in ambient air, sediments, fish and herring gull eggs within the Great Lakes Basin. To track the trend for dioxins/furans in the environment, the workgroup will report on the levels of these environmental indicators as the data become available.

A comparable set of monitoring data of dioxins/furans from the U.S. and Canada would facilitate progress tracking. The workgroup will assess the compatibility of the ambient air monitoring networks used in Canada (NAPS) and the U.S. (NDAMN), as well as the Integrated Atmospheric Deposition Network (IADN) by identifying inconsistencies and changes needed to achieve an integrated air monitoring network within the Great Lakes Basin.

December 16, 2003
Erin Newman, US EPA
Anita Wong, EC

Poorly Characterized Sources Dioxins and Furans

Industrial:

- Secondary metal smelting
- Coke production
- Ceramic manufacturing
- Clay processing
- Foundries
- Asphalt mixing
- Petroleum refineries
- Textile and leather dyeing
- Industrial Boilers

Uncontrolled Combustion:

- Forest fires
- Brush fires
- Range fires
- Agricultural burning
- Landfill Fires
- Structural fires

Other Combustion:

- Residential wood burning
- Crematoria
- Animal carcass
- Diesel vehicles
- Boilers – Residential, Agriculture
- Copper wire recycling

Municipal:

- Rural soil erosion
- Urban runoff
- Ash Disposal
- Landfill fugitive emissions
- Landfill fires

Other:

- Utility poles and storage yards
- Transformer storage yards
- Pentachlorophenol wood preservative