

Benzo(a)Pyrene and Hexachlorobenzene

Work Group Co-Chairs:

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B(a)P and HCB Challenge Goals

Canada

- Seek a 90% reduction in releases
- By 2000

United States

- Seek reductions in releases that are within, or have the potential to enter, the Great Lakes Basin
- By 2006

Progress Toward the Challenge Goals

- **Both Canada and the U.S. have achieved reductions**
- **The U.S. has satisfied its commitment**
 - ◆ **B(a)P emissions in Great Lakes states reduced by ~ 77% from 1996 to 2001**
 - ◆ **HCB emissions reduced from 1990 to 1999, and further by 2002 (28% reduction from 1999-2002)**
- **Canada continues to pursue its goal, but it is unlikely that 90% reduction goal will be met by 2006**
 - ◆ **B(a)P releases reduced by ~ 49%, relative to 1988**
 - ◆ **HCB releases reduced by ~ 68%, relative to 1988**

Recent Activities – United States

BaP:

- **Residential Wood Combustion**
 - ◆ **Artificial Wax FireLog Testing Completed**
 - ◆ **Wood Stove Change-out Program completed in SW PA (Pittsburgh) in Fall 2005**
 - ◆ **Two Burn-It-Smart Workshops held in Michigan in February**
- **Scrap Tires**
 - ◆ **GIS mapping and tire pile inventories prepared for Great Lakes States**
 - ◆ **Scrap Tire Cleanup Guidebook Completed January 2006**
 - ◆ **Best Practices training held in April for Pennsylvania, Maryland, New Jersey and Delaware**
 - ◆ **Scrap tire forums held in Chicago, Lansing, MI and Philadelphia**
- **Coke Ovens**
 - ◆ **Pushing, Quenching, and Combustion Stack MACT went into effect in April, 2006**
 - ◆ **Residual risk requirements for doors, lids, offtakes and charging went into effect in July, 2005**
- **Midwest Clean Diesel Initiative**

Recent Activities – United States (cont)

HCB:

- Burn Barrel reduction work ongoing through Burn Barrel Subgroup
- Ongoing effort to confirm lower levels of HCB in pesticide products
- Industry success stories – come to HCB/B(a)P Workgroup meeting for details

Outlook – United States

- **US meeting its commitments for BaP and HCB**
- **Planned HCB Activities**
 - **Special HCB Inventory Study Funded**
 - **Continue soliciting voluntary chemical company reductions**
- **Planned B(a)P Activities**
 - **Wood Stove Changeout Scheduled for Dayton, Ohio**
 - **Tribal Burn-It-Smart Workshops scheduled for Wisconsin, Michigan and Minnesota**
 - **Reduction activities planned for wood-fired boilers**
 - **Additional Scrap Tire Training material will be prepared**
 - **Great Lakes Commission will target B(a)P Inventory**

Recent Activities - Canada

BaP:

■ Residential Wood Combustion

- ◆ Outreach – 18 (public/professional) and 10 First Nations *Burn it Smart* Workshops
- ◆ Pilot Project – 6 *Burn it Smart!* Workshops at southeastern Ontario Home Depot stores
- ◆ Artificial Log Testing – Joint projects with USEPA and Puget Sound Clean Air Agency

■ Creosote Use in Rail Ties

- ◆ User Guidance Document distributed to industrial users in July 2005

■ Iron & Steel

- ◆ Ontario's four integrated steel mills are on target to meet coke oven PAH targets set out in environmental codes of practice

Recent Activities – Canada (cont)

HCB:

- **HCB Modeling Project to investigate the impact of long-range transport on the Great Lakes**
- **Worked with Pest Management Regulatory Agency (PMRA) to improve release estimate from pesticides**
- **Burn Barrels program (Dioxins/Furans Workgroup)**
- **Improved Release Inventory**
 - ◆ **Great Lakes Basin BaP Mapping**
 - ◆ **Mobile 6C Emission Modeling (Canadian version) and PAH Emissions from Motor Vehicles**
 - ◆ **Emission Inventory Reconciliation with Ontario Ministry of the Environment**

Outlook - Canada

- ✧ **HCB releases for Ontario are very low (~17 kg (37 lbs)). Additional reductions will be challenging.**
 - ◆ **Pesticides (#1 source):** Promote actions to further reduce concentrations of HCB in pesticides, optimize/reduce usage of pesticides containing HCB, and/or promote alternatives to pesticides containing HCB
 - ◆ **Burn Barrels (#2 source):** Update residential waste generation data
 - ◆ **Ferric/Ferrous Chloride (#3 source):** Update information on HCB in sewage sludge to modify release information (i.e., current Ontario Ministry of the Environment study)

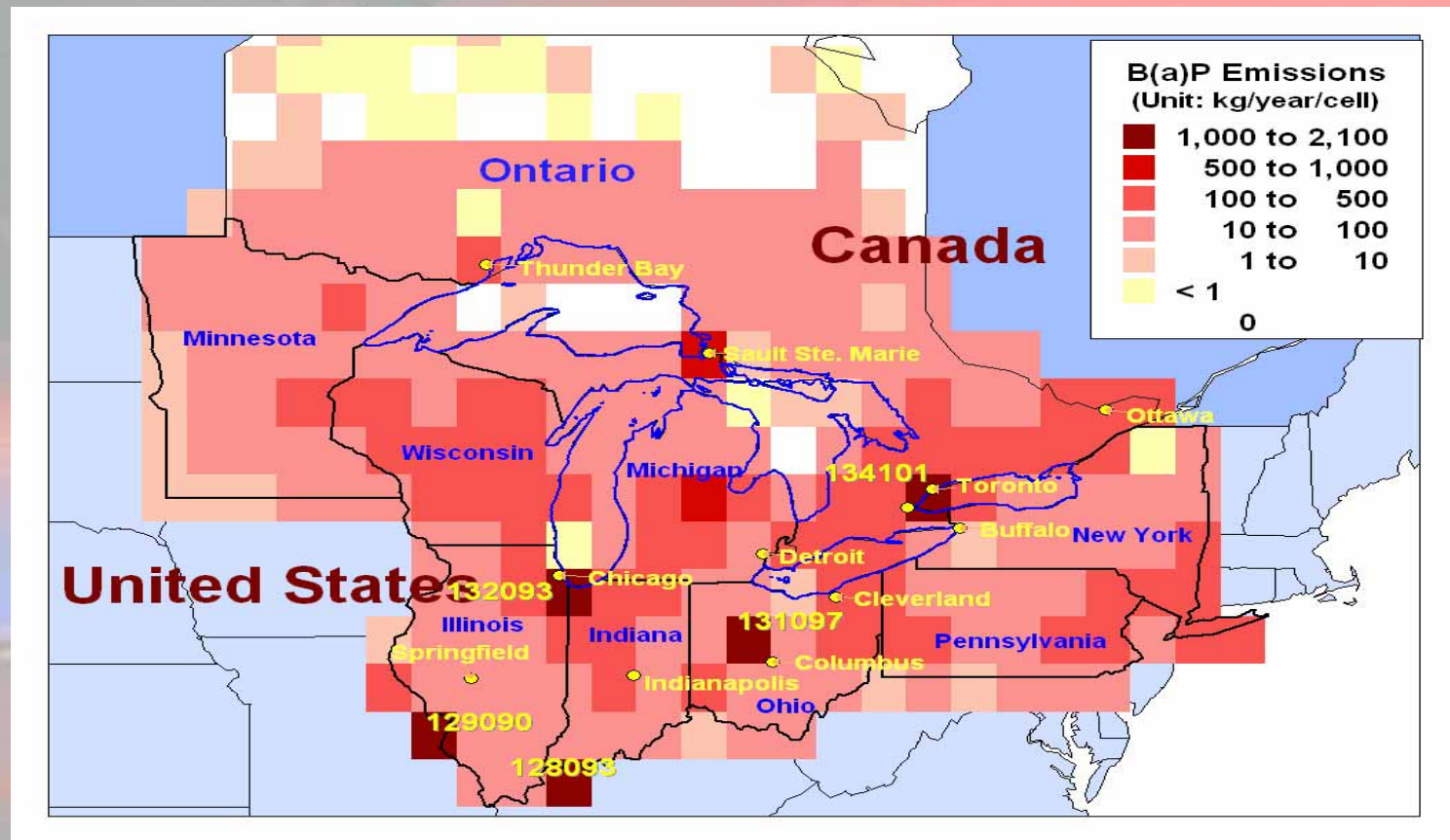
- ✧ **BaP**
 - ◆ **Iron & Steel (#1 source):** Further reductions beyond Canadian environmental code of practice
 - ◆ **Creosote Railway Ties (#2 source):** Address releases from in-service railway ties; Implement Industrial Treated Wood Users Guidance Document
 - ◆ **Wood Stoves (#3 source):** Provide information to a larger number of people using wood stoves; Measure changeouts and changes in wood burning practices to revise emission estimate

THE GREAT LAKES BINATIONAL TOXICS STRATEGY

Gridded Anthropogenic BaP Releases in the Great Lakes Basin

(Draft Grid-System Map with Spatial Resolution of 1° latitude by 1° longitude)

Data Source: 2003 Ontario Inventory and 1999 USEPA's NEI



BaP/HCB Workgroup Agenda

10:30 am – 2:15 pm

- ★ **Joint session with Dioxins/Furans Workgroup**
 - **Burn Barrels**
 - **Outdoor Wood Boilers**
 - **Release Sources**
 - **Agricultural Plastics and Trash Burning**
 - **Sewage Treatment Plants and Sludges**

2:15 pm – 4:30 pm

- ★ **Great Lakes Basin BaP Mapping Project**
- ★ **HCB Modeling Project Update**
- ★ **Residential Wood Combustion**
- ★ **Chemical Manufacturing**
- ★ **Pesticides**
- ★ **Scrap Tires**
- ★ **Ambient Air Monitoring**