

Benzo(a)Pyrene and Hexachlorobenzene

Work Group Co-Chairs:

Steve Rosenthal, U.S. EPA

Tom Tseng, Environment Canada

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 2007
 - ◆ B(a)P releases reduced by ~49%, relative to 1988
 - ◆ HCB releases reduced by ~68%, relative to 1988

Recent B(a)P Activities – United States

■ Residential Wood Combustion

- ◆ Artificial Wax Firelog Testing Completed**
- ◆ Wood Stove Change-out Program completed in SW PA (Pittsburgh) in Fall 2005 and Dayton, Ohio, in August 2006**
- ◆ Two Burn-It-Smart Workshops held in Michigan in February 2006**
- ◆ Conducted 4 Tribal workshops in Minnesota, Wisconsin, and Michigan in September with Canadian First Nations Burn-it-Smart trainers**

Recent B(a)P Activities – United States (Cont'd)

■ Scrap Tires

- ◆ GIS mapping and tire pile inventories prepared for Great Lakes States**
- ◆ Scrap Tire Cleanup Guidebook completed January 2006 and on-line training has been developed**
- ◆ Best Practices training held in Philadelphia for Pennsylvania, Maryland, New Jersey and Delaware and in Alabama and South Dakota**
- ◆ Scrap tire forums held in Chicago, and Lansing, MI**

Recent B(a)P Activities – United States (Cont'd)

■ Coke Ovens

- ◆ Pushing, Quenching, and Combustion Stack MACT went into effect in April 2006, and Residual Risk requirements for doors, lids, offtakes and charging went into effect in July 2005**
- ◆ U.S. EPA has been working with Environment Canada and the Ministry of the Environment on an emission reduction and monitoring program at Algoma Steel in Ontario**

■ Midwest Clean Diesel Initiative

Recent HCB Activities – United States

- **Burn Barrel reduction work ongoing through Burn Barrel Subgroup**
- **Ongoing effort to confirm lower levels of HCB in pesticide products**
- **Substantial emission reductions from several major chemical companies**
- **Phase one of HCB Inventory has been completed**

Outlook – United States

- **US meeting its commitments for B(a)P and HCB**
- **Planned HCB Activities**
 - ◆ **Special HCB Inventory Study Funded – phase two to be completed by Spring 2007**
 - ◆ **Continue soliciting voluntary chemical company reductions**

Outlook – United States (continued)

- **Planned B(a)P Activities**
 - ◆ **Additional Wood Stove Change-out Scheduled for Dayton, Ohio**
 - ◆ **Additional Tribal Burn-It-Smart Workshops will be put on**
 - ◆ **Reduction activities planned for wood-fired boilers**
 - ◆ **Scrap Tire Piles will continue to be inventoried**
 - ◆ **Great Lakes Commission will target B(a)P Inventory**
 - ◆ **Additional coke oven emission reduction requirements will be implemented**

Recent Activities - Canada

B(a)P:

- Residential Wood Combustion
 - ◆ Conventional wood stove testing
 - ◆ First Nations Brochure
 - ◆ Outdoor wood boilers preliminary survey
 - ◆ Show participation
 - ◆ Workshop accreditation

HCB:

- HCB Modeling Project

Outlook - Canada

- HCB releases are very low (~17 kg (37 lbs))
 - ◆ Pesticides (#1 source): Promote further reductions
 - ◆ Burn Barrels (#2 source): Update residential waste generation data
 - ◆ Ferric/Ferrous Chloride (#3 source): Update information on sewage sludge

Outlook – Canada (continued)

- Will not meet B(a)P goal by 2007
 - ◆ Iron & Steel (#1 source): Beyond Canadian Environmental Code of Practice
 - ◆ Creosote Railway Ties (#2 source): In-service railway ties; Industrial Treated Wood Users Guidance Document
 - ◆ Wood Stoves (#3 source): Workshops with retailer support; EPA-certified stoves testing; Outdoor Wood Boiler Survey
 - ◆ Source Receptor Modeling