

US EPA ARCHIVE DOCUMENT

Benzo(a)Pyrene and Hexachlorobenzene

Work Group Co-Chairs:

Steve Rosenthal, USEPA

Tom Tseng, Environment Canada

B(a)P and HCB Challenge Goals

Canada

- Seek a **90% reduction** in releases
- By 2000

United States

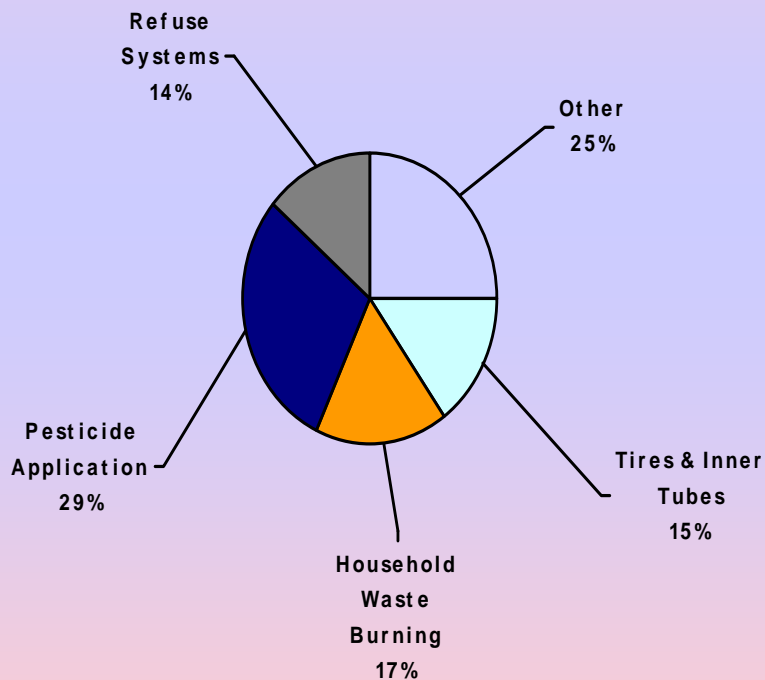
- Seek **reductions in releases** that are within, or have the potential to enter, the Great Lakes Basin
- By 2006

Progress Toward the Challenge Goals

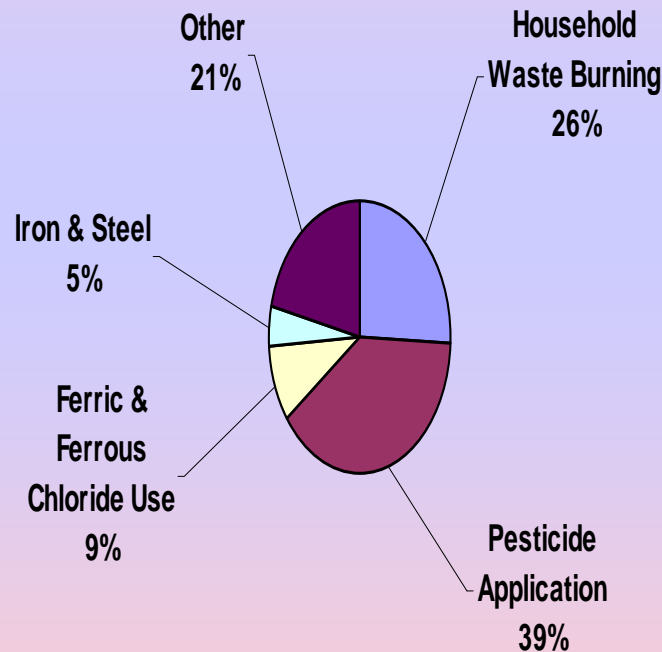
- The U.S. has met its commitments
 - ◆ B(a)P emissions in Great Lakes states **reduced by ~77%** from 1996 to 2001
 - ◆ HCB emissions **reduced** from 1990 to 1999, and further by 2002 (28% reduction from 1999-2002)
- Canada is still working toward its 90% reduction targets
 - ◆ B(a)P releases **reduced by ~53%**, relative to 1988
 - ◆ HCB releases **reduced by ~70%**, relative to 1988

HCB Sources

2002 US HCB Sources
~950 kg (2,100 lbs)

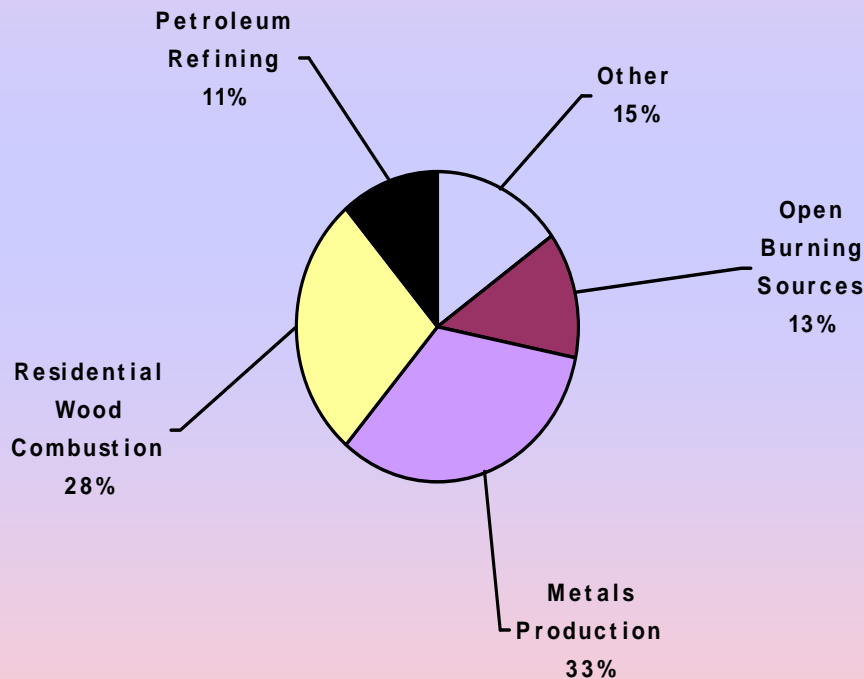


2008 Ontario HCB Sources
15 kg (34 lbs)

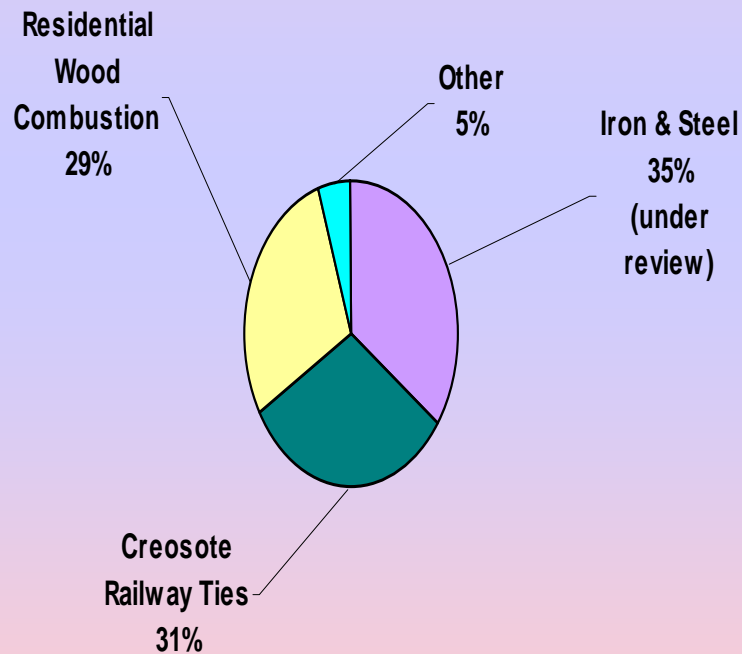


B(a)P Sources

2002 US Great Lakes & Ontario B(a)P Sources
26,858 kg (59,087 lbs)



2008 Ontario B(a)P Sources
8,154 kg (17,939 lbs)



BaP - Summary of Canadian Actions

- Reductions (from 17,380 kg in 1988 to 8,154 kg in 2008)
 - ◆ Iron & Steel Sector accounts for 82% of reductions
 - ◆ Petroleum Refining Sector accounts for 7% of reductions
 - ◆ Residential Wood Combustion accounts for 5% of reductions
 - ◆ Wood Preservation Facility accounts for 5% of reductions

- Iron & Steel
 - ◆ Environmental Code of Practice for Integrated Steel Mills (2001 - PAHs and Benzene)
 - ◆ Environmental Code of Practice for Non-Integrated Steel Mills (2001 - PAHs, HCB)
 - ◆ Environmental Best Practice Manual for Coke Producers – Controlling and Reducing Emissions of Polycyclic Aromatic Hydrocarbons (PAH) from Metallurgical Coke Production in the Province of Ontario (Canadian Steel Producers Association, 2000)

- Residential Wood Combustion
 - ◆ Burn it Smart! Education and Outreach
 - ◆ Wood Stove Testing (2008, 2009)

- Wood Preservation
 - ◆ Technical Recommendations Document (2004) and Self-Regulated Certification Program
 - ◆ Industrial Treated Wood Users Guidance Document (2004)
 - ◆ Creosote Treated Wood Survey (2007)

- Inventory
 - ◆ BaP Mapping (2005)
 - ◆ PAH Modelling (2009)

HCB - Summary of Canadian Actions

- Reductions (from 50.4 kg in 1988 to 15.3 kg in 2008)
 - ◆ Pesticide Sector accounts for 85% of reductions
 - ◆ Municipal Waste Incineration accounts for 4% of reductions
 - ◆ Chemical Sector accounts for 4% of reductions
 - ◆ Iron & Steel Sector accounts for 4% of reductions
 - ◆ Sewage Treatment Plants account for 3% of reductions

- Municipal Waste Incineration
 - ◆ Closing of incinerators (Hamilton's SWARU facility in 2002, medical waste incinerators)

- Household Waste Burning (Dioxins/Furans)
 - ◆ Education and Outreach

- Inventory
 - ◆ HCB Modelling (2008)
 - ◆ Pesticides

Workgroup Activities - Canada

- **Coal Tar Sealant study** - Seven of twelve contractors surveyed in the Toronto area have indicated that they use Coal Tar products. A field test plan has been developed but funding has been a challenge to implement.

Workgroup Activities – United States

- A Request for Proposals has been submitted to perform a \$50,000 wood stove change-out program in Dane County (Madison) Wisconsin. Approximately 100 non-certified woodstoves will be removed from service with this effort. These proposals are due in early June. Most of the money will go to rebates and there will also be an outreach component. Over 500 tons of PM2.5 per year are emitted from non-EPA certified wood stoves and fireplaces in Dane County.
- There is an excellent chance of getting a large amount of mitigation money (in lieu of enforcement penalties) for Southern Indiana and there is some chance of getting mitigation money for Washington County, Ohio.
- Coal Tar Sealants outreach approach is being evaluated.