

# 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

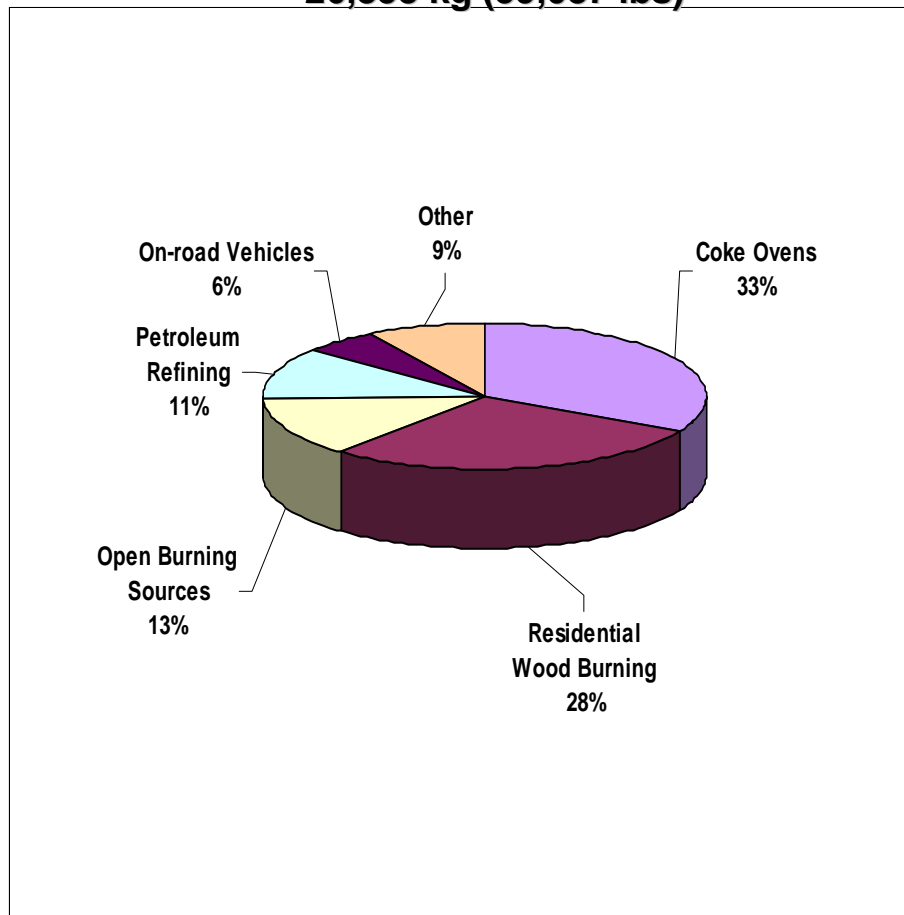
- Seek **reductions in releases** that are within, or have the potential to enter, the Great Lakes Basin
- By 2006

## Progress Toward the Challenge Goals

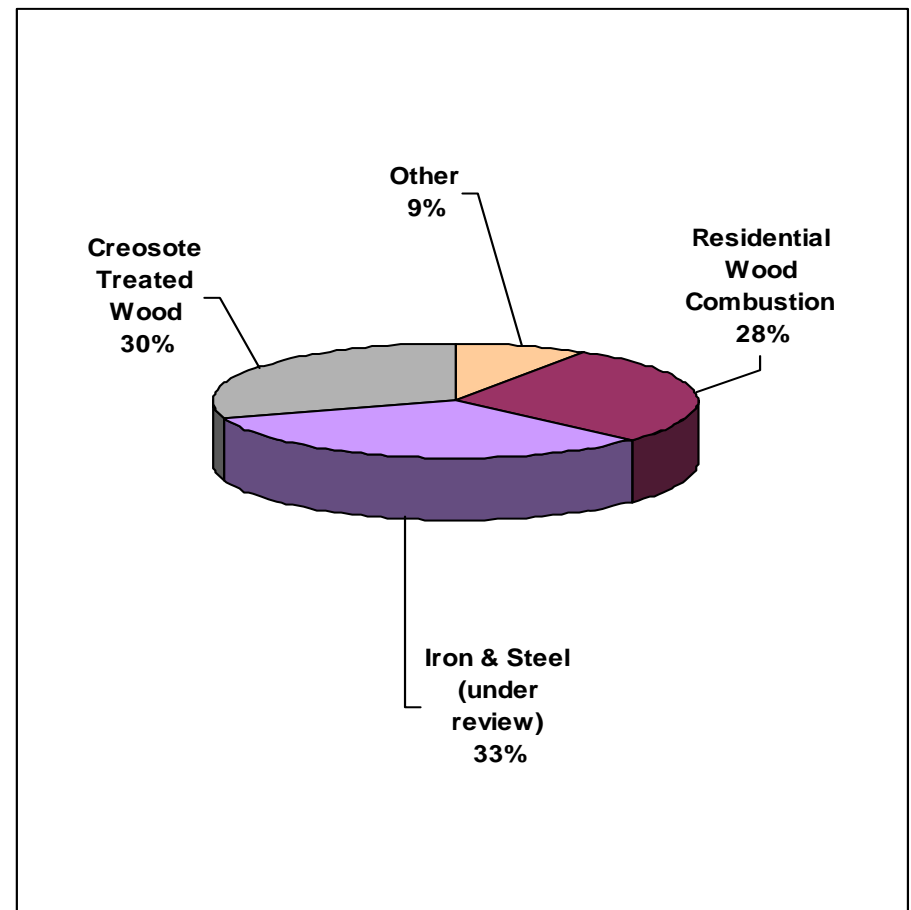
- The U.S. has met its commitments
  - ◆ B(a)P emissions in Great Lakes states **reduced by ~77%** from 1996 to 2001
  - ◆ HCB emissions **reduced** from 1990 to 1999, and further by 2002 (28% reduction from 1999-2002)
- Canada has not met its commitments
  - ◆ B(a)P releases **reduced by ~52%**, relative to 1988
  - ◆ HCB releases **reduced by ~73%**, relative to 1988

## B(a)P Sources – Great Lakes Region

2002 Great Lakes Basin (including Ontario)  
Regional B(a)P Emissions  
26,858 kg (59,087 lbs)



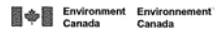
2005 Ontario B(a)P Sources  
8,340 kg (18,348 lbs)



## Significant B(a)P Activities

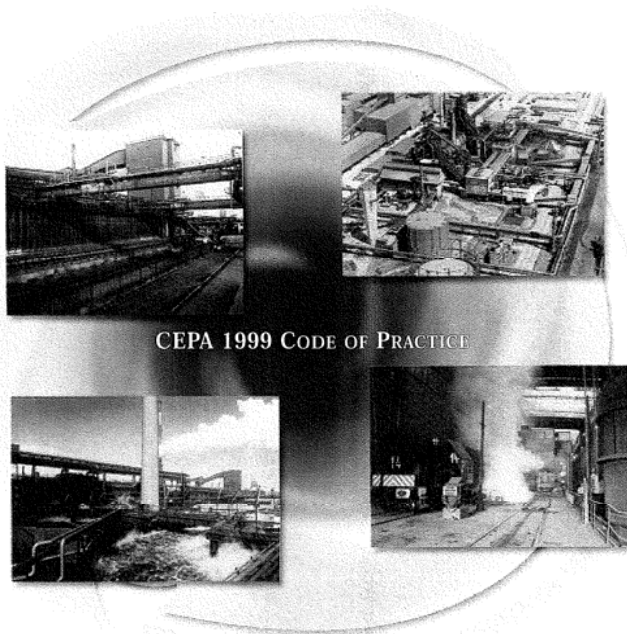


# Significant B(a)P Activities (continued)



Canada

## ENVIRONMENTAL CODE OF PRACTICE FOR INTEGRATED STEEL MILLS



CEPA 1999 CODE OF PRACTICE

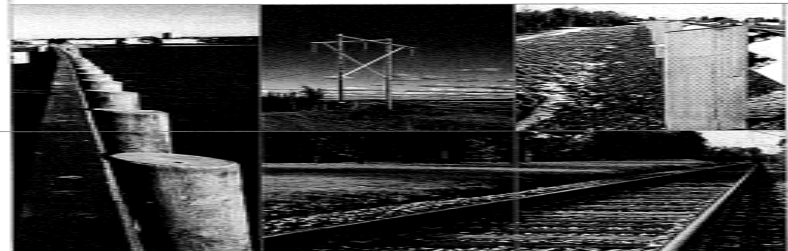
FIRST EDITION

EPS 1/MM/7 – March 2001  
Minerals and Metals Division  
Environmental Protection Service  
Environment Canada



## INDUSTRIAL TREATED WOOD USERS GUIDANCE DOCUMENT

Guidance for the Industrial Treated Wood User Concepts to include in an Environmental Management System concerning the use of Wood treated with CCA (chromated copper arsenate), ACZA (ammoniacal copper arsenate), ACZA (ammoniacal copper zinc arsenate), Creosote and Pentachlorophenol



Version 1 – September 2004

Prepared by:  
Wood Preservation Strategic Options Process  
Guideline Development Working Group

Canada

FRIDO CONSULTING INC.

## AN INVENTORY OF CREOSOTE IN ONTARIO

REPORT PREPARED FOR  
ENVIRONMENT CANADA, ONTARIO REGION  
UNDER CONTRACT NO.: KW405-07-0933

BY

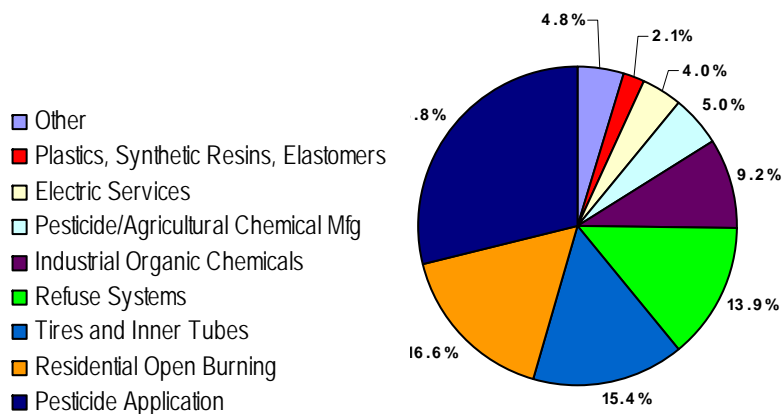
G.E. BRUDERMANN, M.Sc.F.

MARCH 30, 2008

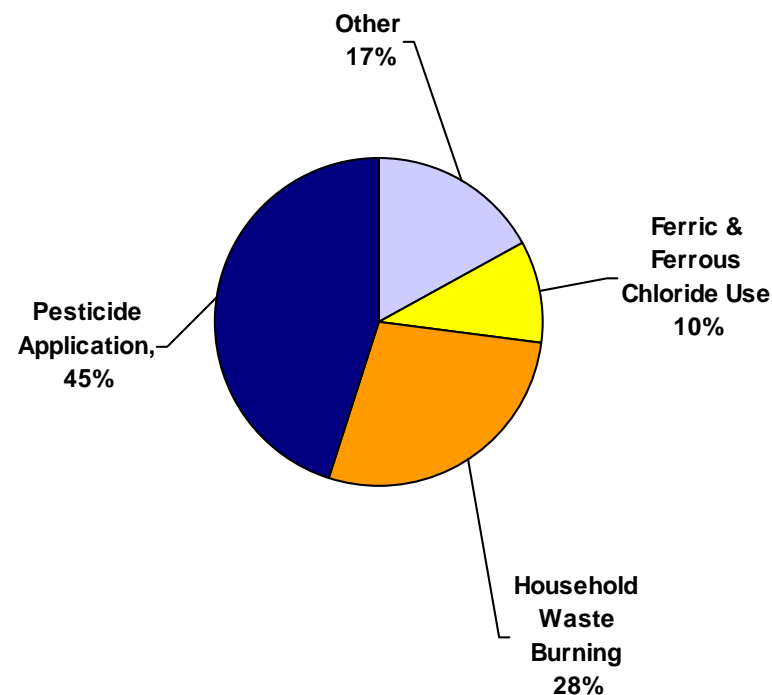
8015 REDROOFS ROAD, HALFMOON BAY, BC, CANADA, V0N 1Y1  
TELEFAX: (604) 895-9540; [frido@sunshine.net](mailto:frido@sunshine.net)

# HCB Sources – Great Lakes Region

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



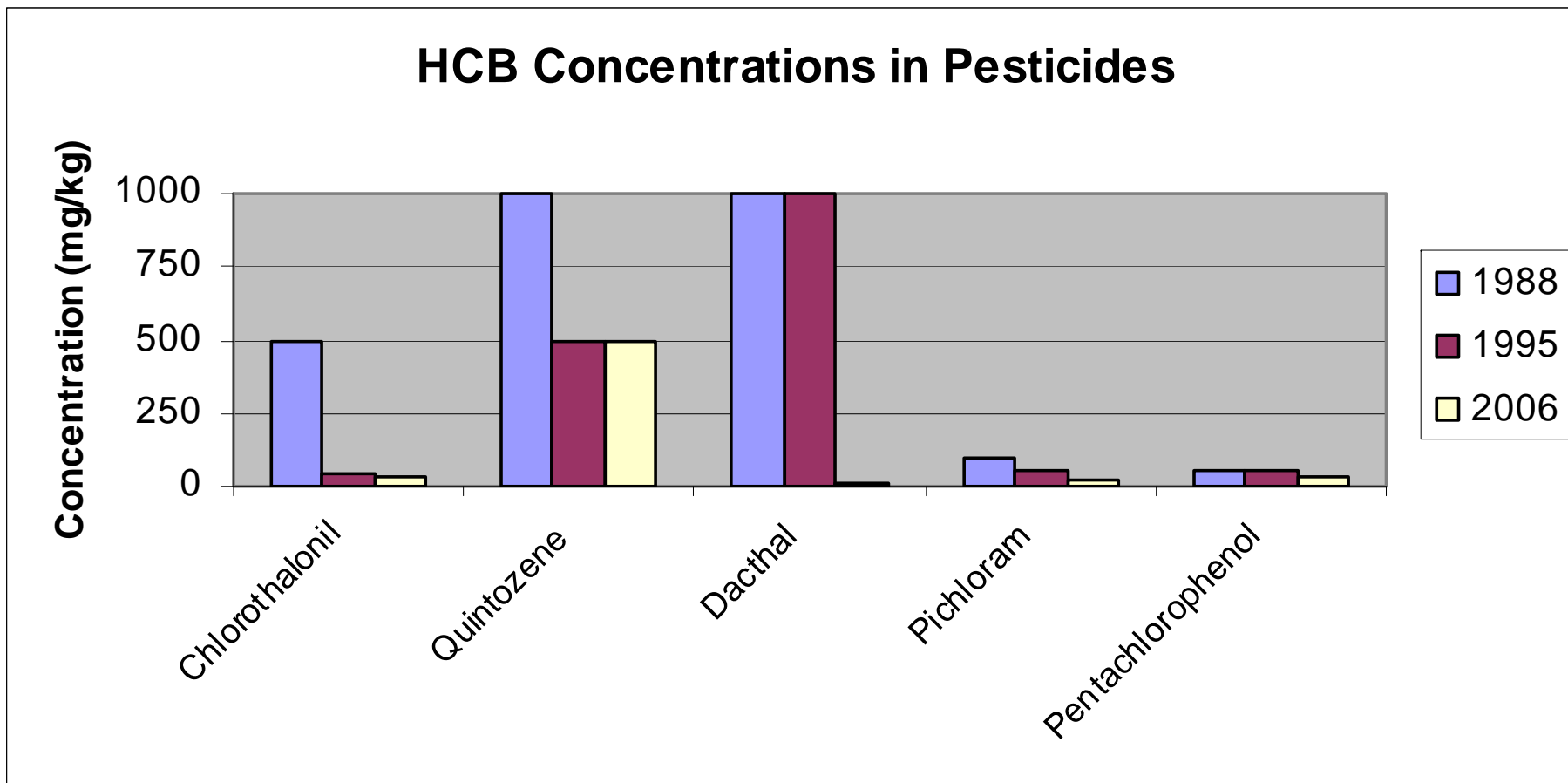
**2005 Ontario HCB Sources**  
13.5 kg (29.7 lbs)



Source: 2002 National Emissions Inventory

# Significant HCB Activities

Reducing Emissions from Pesticide Applications





# Driveway and Parking Lot Sealcoat

## Problems with Coal Tar Sealants

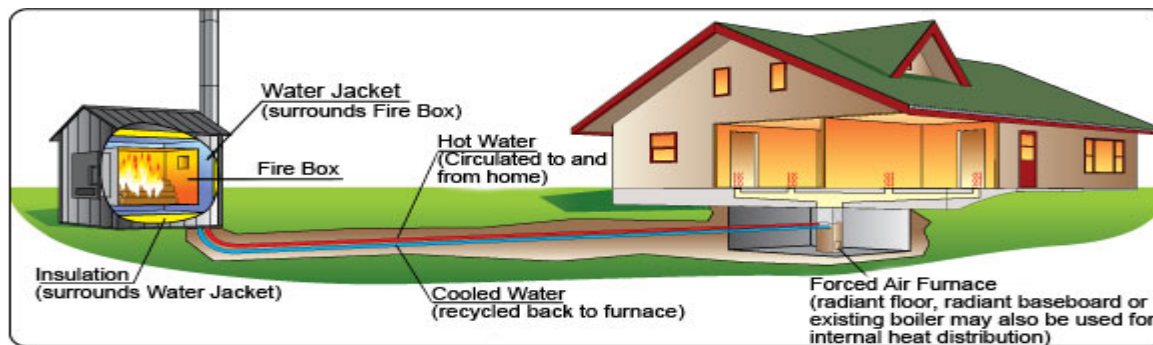
- Coal tars and coal tar pitches are a “*known human carcinogen*” according to the U.S. Dept. of Health and Human Services
- Are a source of PAHs in storm water runoff
- Parking lot CTS dominate PAHs loadings to watersheds
- PAH “hot spots” are commonly found in streams adjacent to parking lots with CTS

## Options: Restrictions on CTS

- **Restrict Sale of CTS**
- **Restrict Use of CTS**

# Outdoor Wood-fired Hydronic Heater (OWHH) Program

- Phase 1 Partnership Agreement is a result of more than two years of collaboration between EPA, HPBA and other stakeholders.
- New partnership effort, combined with proper installation and best burning practices, will provide consumers with cleaner heating appliances.
- A number of OWHH manufacturers have met the EPA's Phase 1 air emissions level of 0.60 pounds of fine particles per million BTU heat input.



## Outlook – United States

US meeting its commitments for B(a)P and HCB

Planned HCB activities:

- ◆ Continue analysis of pesticide emissions
- ◆ Continue soliciting voluntary chemical company reductions
- ◆ Continue Burn Barrel Outreach

Planned B(a)P activities:

- ◆ Follow-up on implementation of EPA's scrap tire guidance
- ◆ Future wood stove changeouts planned
- ◆ Additional Tribal burning workshops scheduled
- ◆ Implementation of voluntary wood-fired boiler agreements
- ◆ Follow-up on newly identified source categories in Great Lakes B(a)P inventory
- ◆ Will perform extensive coal tar sealant outreach

## Outlook - Canada

### Future B(a)P Activities:

- ◆ **Iron & Steel:** Verify pollutant release reporting to the National Pollutant Release Inventory
- ◆ **Creosote Treated Wood:** Update information from creosote survey; Evaluate release information and need for further actions
- ◆ **Residential Wood Combustion:** Focus efforts on regulation development and municipal bylaws

### Future HCB Activities:

- ◆ **Pesticides:** Seek support for reductions from agencies/partners
- ◆ **Household Waste Burning:** Combine efforts with residential wood combustion and Model Municipal By-law updates
- ◆ **Ferric/Ferrous Chloride:** Update information on HCB in sewage sludge to modify release information