

US EPA ARCHIVE DOCUMENT

Great Lakes Binational Toxics Strategy Stakeholder Forum

December 4, 2008
Hyatt Regency O'Hare
Rosemont, Illinois

Mercury

Work Group Co-Chairs:

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Canada's Mercury Reduction Challenge and Progress

Challenge:

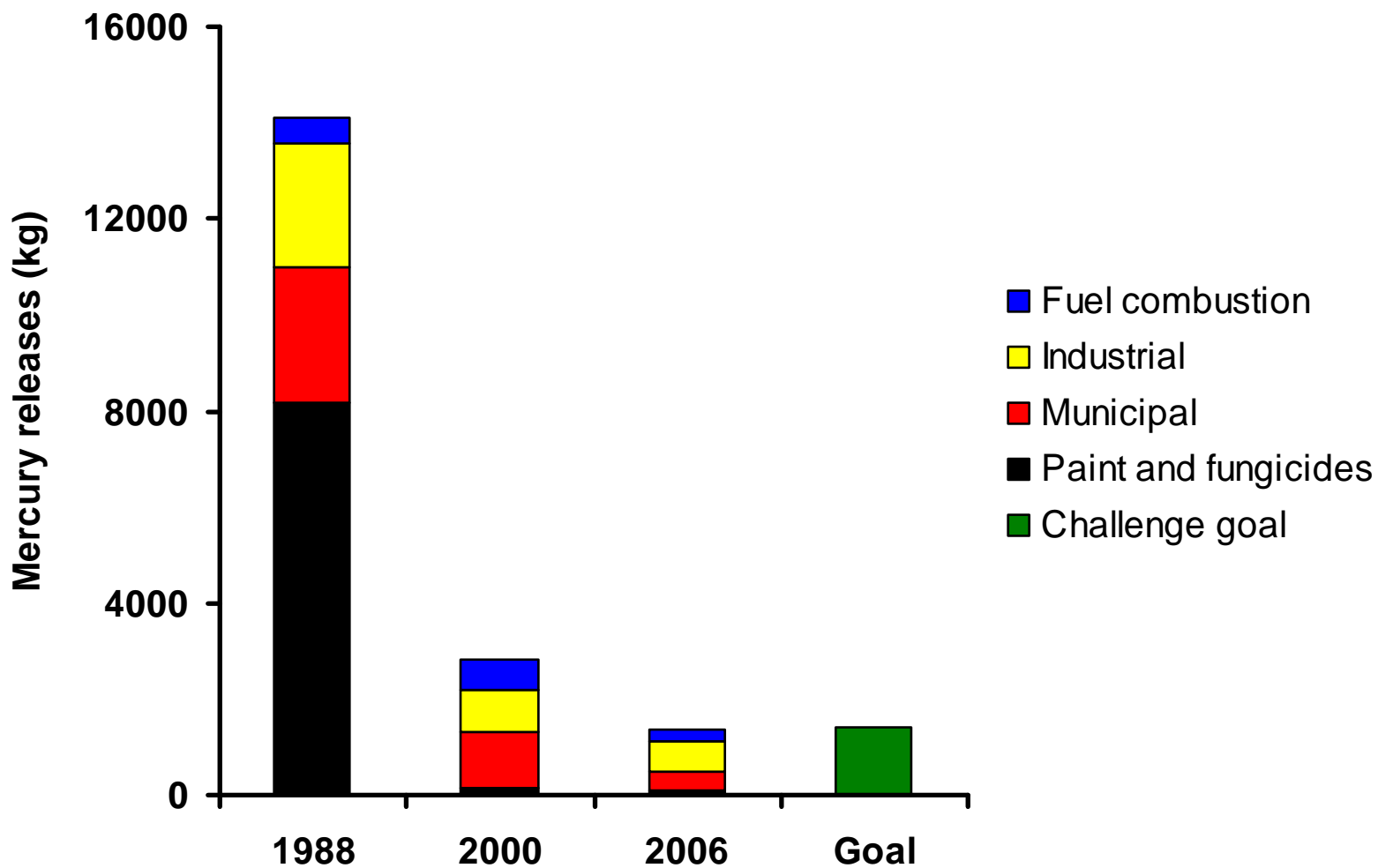
“Achieve by 2000, a 90% reduction in the release of mercury, or where warranted the use of mercury, in the Great Lakes Basin”

Baseline: 1988

Progress:

- **Reduction > 90%** (as of 2006)

Ontario Mercury Releases



U.S. Mercury Reduction Challenge and Progress

Challenge:

“Achieve by 2006 a 50% reduction in use and air emissions of mercury nationwide”

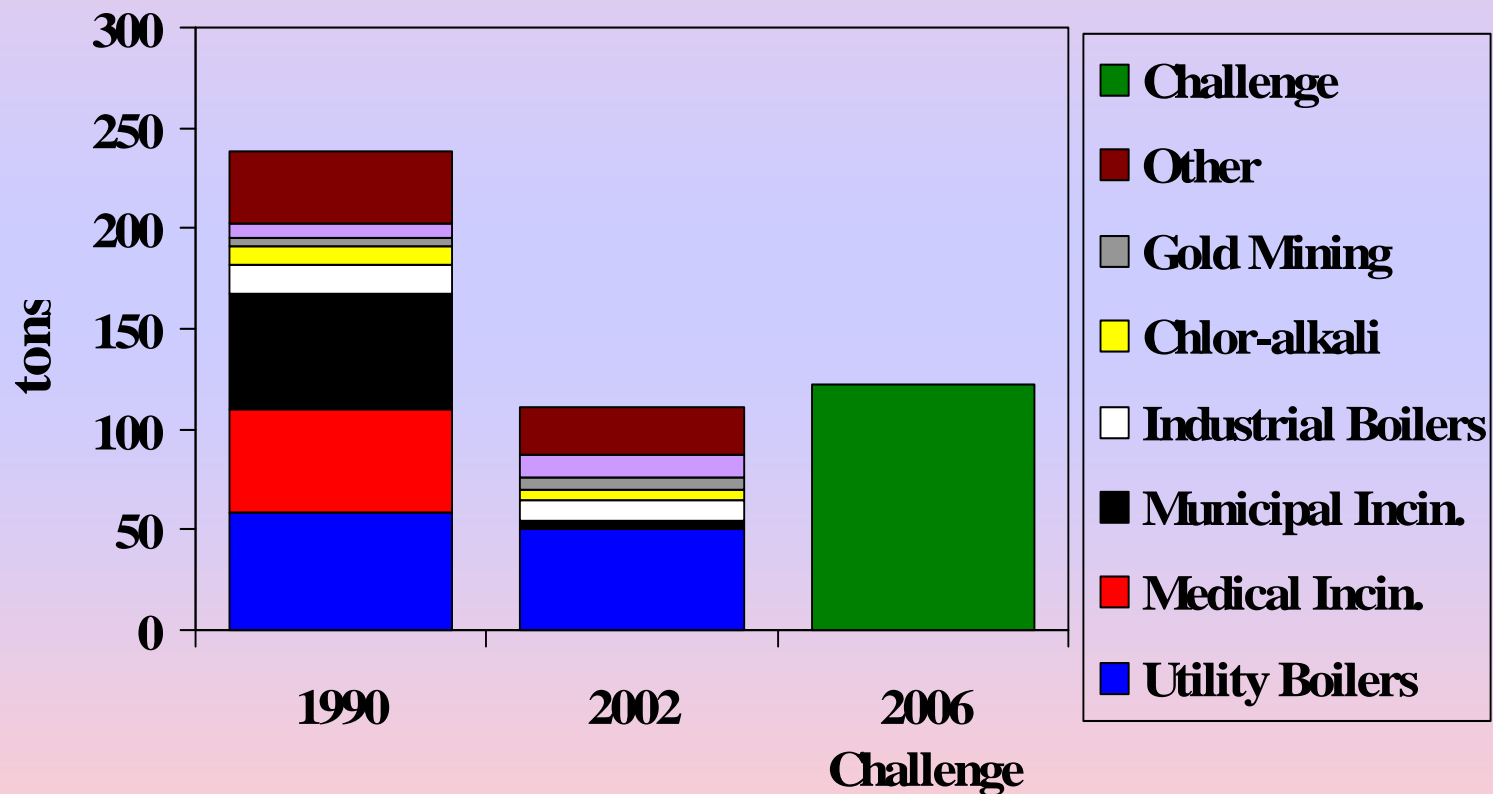
■ Baselines:

- ◆ Emissions: 1990
- ◆ Use: 1995

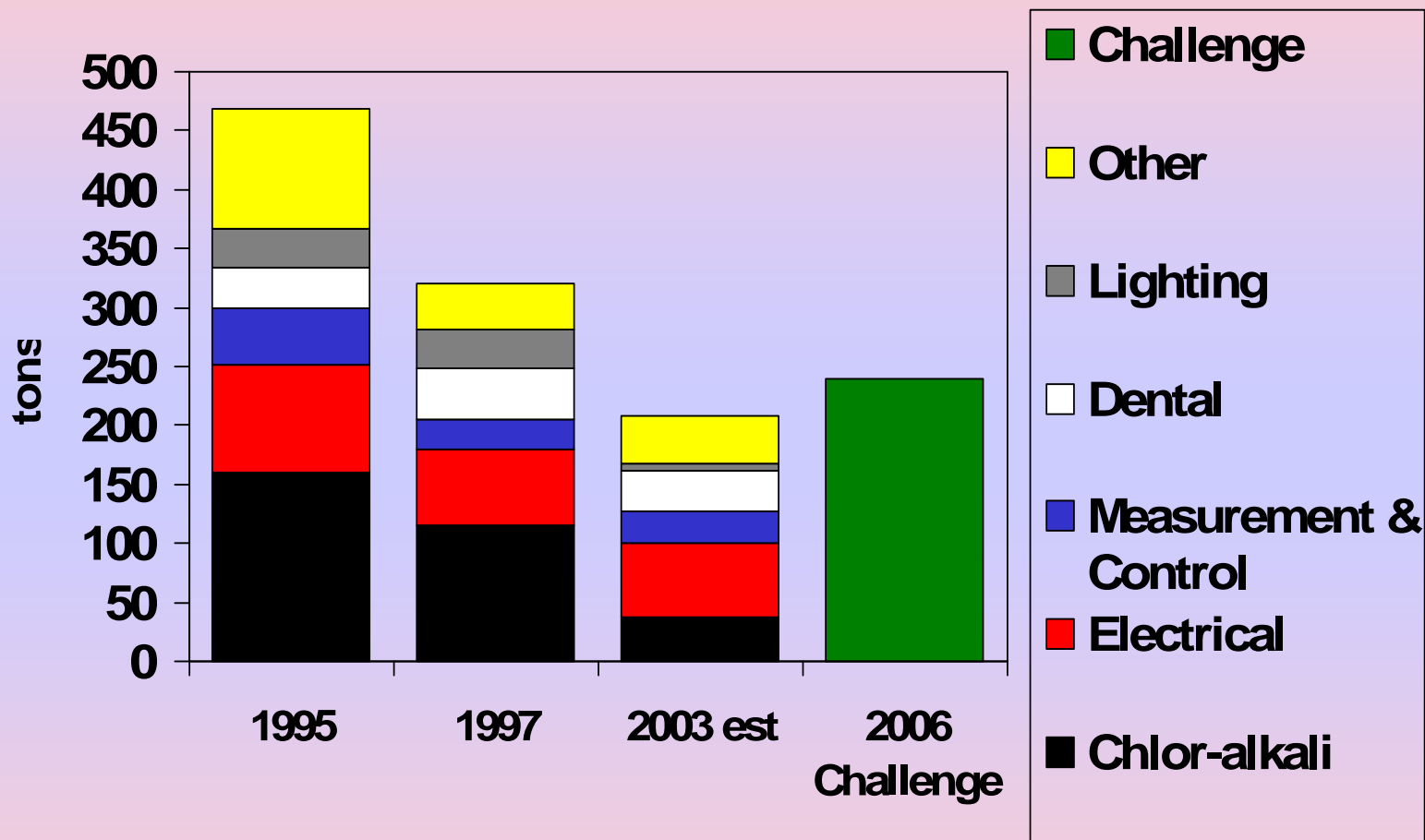
Progress (best guess):

- Emissions: **> 50% reduction** (as of 2002)
- Use: **> 50% reduction**

US Mercury Emissions: 2006 Challenge, 1990 Baseline



U.S. Mercury Use



Source: US Geological Survey, *Minerals Yearbook*, 1996, 1997. Chlorine Institute Annual Report to EPA, 2004; National Electrical Manufacturer's Association, direct communication, 2004.

Accomplishments (1996-2008)

- Inventories of releases/emissions
- Chlor-Alkali Sector
- Health Care Sector
- Dental Sector
- Mercury Containing Products
 - ◆ Thermometers, Thermostats, Lamps
 - ◆ Collection Programs
- Mercury in Scrap
 - ◆ Auto Switches
 - ◆ Appliances
- Links to National/International Programs
 - ◆ Federal Regulation
 - ◆ CEC
 - ◆ UNEP
- Tracking Environmental Progress/Science

Accomplishments Example 1 - Chlor-Alkali

- 1996 – Chlorine Institute voluntary commitment to reduce mercury use by 50%
- 2007 annual report – 97% reduction in mercury used by Chlor-Alkali industry was reported

Accomplishments

Example 2 - Mercury in Scrap

- 1995-2000 – various studies of significance of releases from auto switches (MN, MI, NY, Recycling Council of Ontario, Pollution Probe)
- 1995-2001 – various pilot programs – removal and end-of-life management (e.g. “Switch Out” program launched in Ontario 2001)
- 2002
 - ◆ AMRC assessment of releases from appliances in Ontario
 - ◆ AMRC Instruction Manual and video
 - ◆ Niagara pilot
- 2003 – North American Vehicle Manufacturers phase out use of mercury switches in convenience lighting and ABS
- 2006 – National Vehicle Mercury Switch Recovery Program (U.S.)
- 2007 – Pollution Prevention Planning Notice for mercury Switches (Canada)

Accomplishments

Example 3 - Dental Sector

- 1996-2000
 - ◆ Evaluation of amalgam separators (e.g. ADA, Toronto)
 - ◆ Pilot Programs (Duluth, Toronto)
 - ◆ Best Management Practices (Dental Associations, Gov't, Universities and Colleges)
- 1998-2004 studies of dental mercury discharges (Environ, Univ. of Toronto, Naval Institute for Dental and Biomedical Research)
- 2001
 - ◆ City of Toronto By-Law
 - ◆ Canada Wide Standards – EC/CDA Memorandum of Understanding
- 2003 – Ontario Reg. 196/03 requiring installation of amalgam separators

Next Steps

- Continue information sharing about cost effective reduction opportunities
- Tracking of Environmental Progress