Canadian Great Lakes
BaP/HCB Inventory Update

GLBTS BaP/HCB Workgroup Meeting
Chicago, Illinois

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EPOD-Ontario

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Inventory Improvement

• Update Ontario BaP and HCB inventory every year
  – 2006 NPRI reviewed data released on November 22, 2007

• Working with Ontario Ministry of the Environment and Great Lakes Commission to reconcile Ontario inventories

• Polycyclic aromatic hydrocarbons (PAHs) source apportionment study initiated to confirm the release inventory for BaP

• National HCB inventory to be updated
### Benzo(a)pyrene Releases - Ontario

<table>
<thead>
<tr>
<th>Sources</th>
<th>1988 (kg)</th>
<th>2005 (kg)</th>
<th>2006 (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point</td>
<td>11,502</td>
<td>2,924</td>
<td>2,915</td>
</tr>
<tr>
<td>Area (non-point)</td>
<td>5,563</td>
<td>5,325</td>
<td>5,325</td>
</tr>
<tr>
<td>Mobile (transportation)</td>
<td>314</td>
<td>91</td>
<td>88</td>
</tr>
<tr>
<td>Total</td>
<td>17,379</td>
<td>8,340</td>
<td>8,318</td>
</tr>
</tbody>
</table>

- **Point:**
  - Cement – Reduction from 11 kg to 0.5 kg due to 2006 stack test data from one facility
2006 Benzo(a)pyrene Major Sectors in Ontario

- Iron & Steel – Release number under review – may be overestimated by an order of magnitude

- Prescribed Burning: 230 kg (3%)
- Household Waste Burning: 150 kg (2%)
- Residential Wood Combustion: 2,333 kg (28%)
- Other: 335 kg (4%)
- Creosote Railway Ties: 2,498 kg (30%)
- Iron & Steel: 2,772 kg (33%)
Hexachlorobenzene Releases - Ontario

<table>
<thead>
<tr>
<th>Sources</th>
<th>1988 (kg)</th>
<th>2005 (kg)</th>
<th>2006 (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point</td>
<td>8.71</td>
<td>1.72</td>
<td>1.35</td>
</tr>
<tr>
<td>Area (non-point)</td>
<td>41.70</td>
<td>11.77</td>
<td>11.77</td>
</tr>
<tr>
<td>Mobile (transportation)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>50.41</td>
<td>13.49</td>
<td>13.12</td>
</tr>
</tbody>
</table>

- Point:
  - Chemical production – Releases increased from 0.004 kg to 0.12 kg
  - Commercial printing, Nonmetallic Minerals, Services – New reporters
  - Primary Metals Production (Mining) – Reduction from 0.74 kg to 0.14 kg due to 2006 stack test result from one facility
2006 Hexachlorobenzene Major Sectors in Ontario

2006 Hexachlorobenzene Major Sectors in Ontario
2006 Release - 13.12 kg

- Pesticide Application: 6.00 kg (45%)
- Household Waste Burning: 3.80 kg (29%)
- Other: 1.20 kg (9%)
- Iron & Steel: 0.47 kg (4%)
- Sewage Sludge Land Application: 0.25 kg (2%)
- Ferric & Ferrous Chloride Use: 1.40 kg (11%)

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