

GLOBAL MERCURY SUPPLY AND TRADE

Peter Maxson

Concorde East/West Sprl - Brussels

***Ad hoc Open-Ended Working Group to prepare for the
intergovernmental negotiating committee on mercury***

UNEP Chemicals Branch - Division of Trade, Industry, and Economics

Bangkok, Kingdom of Thailand

19-23 October 2009

Overview

- **Global mercury supply**
 - **Reducing mercury supply as a major policy option**

- **Global mercury trade**
 - **Improving our understanding of mercury trade**

Sources of supply

- **Primary mercury mining**
- **By-product mercury recovery**
- **Chlor-alkali mercury cell-rooms**
- **Recycling of industrial wastes**
- **Recycling of mercury products**
- **Commercially available mercury stocks**

Global mercury supply (2007)

Main mercury sources	Metric tonnes/year
Primary mercury mining	1300-1600
By-product mercury recovery	400-600
Chlor-alkali facilities	700-900
Recycling of mercury catalysts, wastes and products	600-800
Commercially available mercury stocks	As needed (+)
TOTAL	3100-3900+

Small number of large mercury producers



Small number of major mercury traders

Major metallic mercury traders	Estimated % of commercial market
Almadén (Spain)	10-15
Khaidarkhan Mining Conglomerate (Kyrgyzstan)	10-15
Lambert Metals (UK, Netherlands)	10-15
Others – Berlia or Berimercurio (India), Bethlehem Apparatus (U.S.), Claushuis (Netherlands), Triveño (Peru)/D.F. Goldsmith (U.S.)	25-30
Chinese trade (internal market, not “global”)	25-30

Small number of major mercury traders



Major mercury trade flows



Observations about trade and end-uses

- **General direction of mercury trade is from wealthier countries to less wealthy countries**
 - shifts in global manufacturing
 - expansion of artisanal gold mining
- **Mercury traders have little or no control over mercury end-uses**
- **End-uses may be highly dispersive:**
 - locally (e.g. batteries, thermometers, lamps)
 - globally (e.g. artisanal gold mining)

Observations about mercury life-cycle

- Management of the mercury life-cycle has improved in many countries
- However, the global mercury problem is not improved if mercury is carefully managed in one country, and then exported to another country where it may be less carefully controlled
- UNEP(DTIE)/Hg/OEWG.2/6/Add.1 report, demonstrated the feasibility of major reductions in the global mercury supply

Rationale for focusing on supply

- Few major mercury sources to deal with
- Few major traders to monitor
- Some sectors are more responsive to “supply management,” particularly:
 - if the activity may not be legal,
 - if it is difficult to enforce legislation, and/or
 - if the activity is highly decentralized (e.g. artisanal and small-scale gold mining)

'Market' response to restricted mercury supply

- **Mercury suppliers consider diverse sources, such as enhanced recycling**
- **Mercury price increases**
- **The value of certain mercury wastes increases**
- **Users of mercury in products and processes shift more rapidly to mercury-free alternatives**

Key measures to reduce mercury supply

- **Mercury export bans**
- **Ban on new primary mercury mining, and phase out existing mercury mining**
- **Collect mercury from major sources (e.g. chlor-alkali and by-product mercury) and sequester it from the global marketplace (“long-term storage”)**

EU mercury export ban of 2008

Regulation (EC) no. 1102/2008 on banning export of, and safe storage of, metallic mercury:

- No export of metallic mercury or certain mercury compounds after 15 March 2011
- Obligatory safe storage of mercury recovered from chlor-alkali operations
- Obligatory safe storage of mercury recovered as by-product
- Define how to ensure safe and long-term mercury storage before 2011

Some individual EU countries have already implemented their own mercury export bans

U.S. mercury export ban of 2008

- **Federal stockpile cannot be sold**
- **No export of metallic mercury after 1 January 2013**
- **Long-term mercury storage facility to be identified before 2013**
- **Assess whether mercury compounds should be included in the export ban**

Full transparency is critical to reduce mercury flows

- Transparency may be achieved by a required reporting procedure, special tariff codes for mercury products, trader registration, etc.
- Transparency is facilitated by the relatively small number of transactions linked to imports and exports
- Need to deal with challenges of Customs free zones, definition of metallic mercury vs. mercury waste, etc.

Reducing mercury supply is likely to be at the core of INC discussions

- **Most effective way to achieve significant improvement in human health and the environment related to mercury exposures**
- **Limited sources of mercury supply globally allow for targeted action**
- **First areas to consider may be major sources and “new” mercury**

Reducing mercury supply (continued)

- **Export bans and sequestration / storage are also key instruments to reduce supply**
- **Transparency of trade in mercury, mercury compounds and mercury products is essential for successful implementation**