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Global Mercury Supply



Typical Mercury Storage Configuration

Source: US Defense National Stockpile Center, Defense Logistics Agency, www.dnsc.dla.mil/eis/pages/pix8.htm

A critical element of reducing mercury use and pollution is reducing the global mercury supply. Reducing global supply will help to reduce mercury demand, by raising the price of mercury and making it more difficult to acquire. This result is especially important for lowering mercury uses that are difficult to address directly or through legal restrictions, such as small-scale gold mining. Because mercury cannot be destroyed or converted into other substances, reducing global supply requires reducing and ultimately eliminating international trade of mercury and creating safe long-term storage for existing mercury stocks.

Sources of Mercury Supply

Main Mercury Sources	Metric Tons Per Year
Primary mercury mining	1,300-1,600
By-product mercury from mining other metals, and natural gas production	400-600
Decommissioning Chlor-alkali facilities	700-900
Recovery of mercury from spent used products, and other wastes	600-800
Government or private mercury stocks	As needed
TOTAL	3,100-3,900+

Primary mercury mining is the least preferred source of mercury because it adds new mercury to the global mercury reservoir, and mining activities are significant sources of mercury air pollution. Kyrgyzstan and China are the only countries that still operate large-scale primary mercury mines, and only Kyrgyzstan mines for export.

Mining other ores such as gold, zinc, lead, and copper can generate significant quantities of by-product mercury during smelting and refining activities. Pollution control devices at metal mines add to the quantity of byproduct mercury by trapping mercury air pollution. Producers of natural gas also capture elemental mercury in order to prevent corrosion of their production lines.

Significant quantities of mercury are generated from collection, recycling and reprocessing of mercury-containing products, and industrial wastes, particularly in the developed world. Reprocessed mercury is a growing source of mercury supply as environmental regulations divert mercury during waste management for safety and environmental reasons.

Particularly large quantities of mercury become available when mercury cell chlor-alkali plants close or convert to non-mercury processes. Capturing and storing mercury from these decommissioning chlor-alkali facilities is an efficient and cost effective way to reduce the global mercury supply because large quantities are already aggregated at one location.

Trade Restrictions & Storage Plans

Export bans in the EU and USA, effective in 2011 and 2013 respectively, are projected to reduce the annual global supply by about 40%. Both the EU and USA are currently preparing safe storage requirements and developing storage capacity for this material. Elsewhere in the world, regional assessments of current and projected excess supply have been completed for Asia, and the Latin America/ Caribbean regions. Options for storage are being discussed in each of these regions.

Treaty Control Measures

The treaty must build upon the EU and USA export bans, and further reduce the global availability of mercury. This can be accomplished by prohibiting new primary mercury mining and phasing out other primary mining within 3 years. In addition, the treaty should ban export of mercury into global trade. Finally the treaty should encourage sequestration of mercury from decommissioned chlor-alkali facilities and other mercury-based processes and products and support storage policies and initiatives such as those currently underway.