

**Analysis of gaps and needs in projects on management of mercury  
waste and storage of mercury**

Mario Yarto, Sven Hagemann (GRS)

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# **1 Background and objective of this report**

## **1.1 Mandate**

GC 25/5 mandated UNEP, concurrently with the work of the Intergovernmental Negotiating Committee (INC) to develop a legally-binding instrument, to continue and enhance as part of international action on mercury the existing work, including enhancing capacity for storage of elemental mercury as well as to provide information on the environmentally sound management (ESM) of mercury containing waste.

Presently, there are several activities underway on storage of elemental mercury and on the ESM of mercury waste. These include two projects coordinated by UNEP Chemicals and funded by the Norwegian government; one sister project is implemented by the Secretariat of the Basel Convention and funded by the USEPA.

The UNEP Chemicals project on mercury waste management resulted in waste management plans in five countries. The plans constitute an initial step for national action identified as priorities through stakeholder consultations and underlined through analysis of relevant samples for total mercury content. Typically, countries have identified three priorities for mercury waste management that warrant further action. Most plans include components that a country can resolve at national level, others need international support. In general, governments are faced with the assessment of all steps in the mercury life-cycle from source identification and quantification to final disposal whereby the options and criteria for the long-term safe disposal for waste consisting of elemental mercury, waste containing or contaminated with mercury need to be defined.

The work of UNEP Chemicals on mercury storage draws on the 2009 Assessment/Trade Reports which project excess elemental mercury coming from decommissioned chlor-alkali plants, by-product mercury from non ferrous metals mining and natural gas. This excess mercury will by far exceed mercury demand after equilibrium will have been reached in 2017 for Asia, and 2013 for Latin America. There is need to store excess elemental mercury in order to prevent its re-entry to the global marketplace as a commodity. Governments will be faced with the technological, legal, regulatory and economic challenges of storing elemental mercury.

To assist governments find environmentally sound storage solutions , UNEP Chemicals coordinated two regional mercury storage projects, one in Asia and one in Latin America in 2009-2010.

Based on requests from parties, the Secretariat of the Basel Convention (SBC) has a set of draft (5<sup>th</sup> version) technical guidelines on the environmentally sound management (ESM) of waste consisting of elemental mercury, containing or contaminated with mercury. The set of technical guidelines are based on the principles of ESM of hazardous waste. This includes principles of waste prevention and minimization, identification and inventory, handling, collection, interim storage, transportation, treatment, recycling, and recovery, long term storage, land filling, and remediation of contaminated sites. An intersessional working group led by the Government of Japan has been created to work on the draft technical guidelines. Output of the group will be presented at the next Basel COP in October 2011.

The SBC is implementing country projects in Latin America aimed at contributing to the finalization of the draft guidelines. In parallel, UNEP Chemicals in collaboration with the SBC has just completed a five country project with the same objectives.

## **1.2 Objective**

### **1.2.1 Needs**

It is recognized that there are gaps and potential overlaps between these projects, other related guidance and other outputs from Mercury Partnership areas such as on products. These include: Mercury device collection work does not currently include provision for the waste management of the devices; the waste guidelines do not provide guidance on elements of emergency response in the event of spillages and breakages; the storage projects currently only consider options for the safe long term storage of elemental mercury but does not address the need for interim storage of both elemental mercury and end of life mercury containing products. Further, the outcomes and experiences have not been assessed horizontally.

### **1.2.2 Expected outcomes**

This report shall summarize the linkages and gaps between

- Mercury waste management issues and experiences from the mercury waste management projects studies towards the Basel ESM guidelines
- Mercury storage issues and experiences from the mercury storage studies towards the Basel ESM guidelines.

It shall also make indicative proposals for

- three pilot studies in developing countries facing mercury problems;
- identifying the typical scenarios (industry, household, health care) in three developing countries;
- preparation of a user-friendly and integrative guidance document (three different scenarios)

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