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The Republic of Yemen
Ministry of Water and Environment
Environmental Protection Authority (EPA)

Yemen Mercury Inventory Report

Mercury Release Inventories - Asian Pilot Project

INVENTORY OF MERCURY RELEASES IN Yemen

Preliminary Inventory

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General Authority for Environmental Protection (EPA)

Forword:

The Yemen Mercury Inventory Report was written by Mr. Helal Al-Reiashi, National Consultant. Technical support for the project was facilitated by the United Nation Environment Programme (UNEP) and through a mercury pilot project with in-kind contributions from the Yemen Government.

This report is published in Arabic and English by the Environmental Protection Authority (EPA), the Ministry of water and environment, the Government of Yemen to provide ground information mercury release sources and quantity in Yemen. This report is a first outcome of the common chemicals information and data collection in Yemen.
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Preface

All over history, mercury has been known and used for gold and silver processing. In many parts of the world, mercury has been used in batteries, chlor-alkali production, dental amalgam, fluorescent lights, switches, and thermometers. Much of the mercury contained in these end-of-use products.

In 2007, Yemen got assistance from the United Nations Environmental Program (UNEP) to study the mercury releases from all identified sources. In 2007, UNEP-Chemicals provided the workshop training to the inventory team from the Ministry of water and environment Environmental protection Authority (MWOE), Yemen, by indicating a specific need data and information for gathering related to mercury releases.

After training, the inventory team initiated and identified hotspot areas of possibly mercury releases sources based on local knowledge and current activities (as compared with activities mentioned in the UNEP Toolkit for identification and quantification of mercury releases, November 2005). Based on this material, the inventory team decided to select 10 provinces (including municipalities) out of 24 provinces and municipalities through the country. The inventory stage was conducted from Dec. to Feb. 2008 and then by March 2008 was the period of data entry and analysis.

The main purposes of this inventory is to produce based line information on mercury release sources, exposure routes and possible quantities released into the environment. Inventories for such releases form an important tool in the decision process of mitigating environmental impacts from the pollutants. When Yemen has decided that mercury pollution is a potential priority problem that needs to be evaluated further, it will typically need to estimate both the relative and the absolute contributions to mercury releases from the different sources present in the country. This information can be used to determine which release source types are significant and which sources should be addressed through release reduction initiatives.

Combined with additional knowledge of the specific release source types and available options for bringing about release reductions, the most cost-effective reduction measures can be identified for selection in the decision making process. Often, such inventories are also vital in the communication with stakeholders such as industry, trade and the public.

In addition, baseline information on mercury releases, and subsequent up-dates, can be used to monitor progress towards pre-set goals, and thereby identify successful approaches which could serve as examples in other areas, as well as areas where the applied measures do not prove adequate and further attention and initiative is needed.

Official Note of Chairman EPA

This mercury inventory report was the result of field survey at 10 provinces (including municipalities) and the long discussion of different stakeholders from both public and private sectors the consultation workshop in February 19-20, 2008. The inventory report team was sponsored by UNEP-Chemicals Branch.

This mercury inventory report provide based useful information for governmental ministries, private companies, civil society, and stakeholders with responsibilities for the management and using of mercury and help them in promoting improvement of human health care and environment protection in Yemen.

On behalf of the Minister, Minister of Water & Environment, I would like to express my sincere appreciation to UNEP for funding. Specials thanks for our Yemen Inventory Team provide the best outputs, hard works, and strongest commitment for mercury data collection and development of the inventory report. I'm deeply indebted for all views and comments were made by representatives of the governmental institutions, private sector and other stakeholders and all participants at a consultation workshop at the Ministry of water and environment Environmental protection Authority in Sana'a, Yemen in February 19-20, 2008 respectively.

Finally, I would like to announce that, this mercury inventory report was adopted by the Ministry of water and environment Environmental protection Authority as official baseline information for official purposes use.

The Ministry of water and environment Environmental protection Authority
Director of Department of Environmental Pollution Control, Yemen

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Abbreviation

µg Hg/Nm^3	Microgram mercury per normal metric cube
APCS	Air Pollution Control System
MHOP	Ministry of Health and Population Survey
EPA	Environmental Protection Authority
g	gram
GDP	Growth Domestic Products
GEF	Global Environmental Facilities
GoY	Government of Yemen
Hg	Mercury
LPG	Liquefied Petroleum Gas
MIMT	Ministry of Industry, and Trade
mm	Millimeter
Mn	Manganese
MoWE	Ministry of water and environment
NA	Not Available
NGOs	Non-Governmental Organizations
MoPS	Ministry of Planning & Statistics
MoAI	Ministry of Agriculture, and Irrigation
MoC	Chamber of Commerce
UNEP	United Nations Environmental Programme
VCM/PVC	Vinyle-chloride-monomer (for PVC production)/ poly-vinyle-chloride (plastic type)
WB	World Bank