

National Workshop for the Project
“Management of Mercury and Mercury-Containing Waste”

***Overview on Basel Convention
Draft Technical Guidelines on the
Environmentally Sound Management
(ESM) of Mercury Wastes***

Dr. Mario Yarto
Consultant for UNEP Chemicals
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Lahore, Pakistan

Outline

1. Introduction
 2. Provisions for mercury (UNEP, Basel Convention)
 3. Guidance on ESM criteria and practices of mercury waste
 4. Legislation and Regulatory Framework
 5. Application for mercury waste prevention and minimization (including reduction of discharge and emission)
 6. Identification and inventories
 7. Handling, collection, storage (interim) and transportation of mercury waste
 8. Treatment of mercury waste and recovery of mercury
 9. Long term storage and disposal of mercury waste
 10. Remediation of sites contaminated with mercury
 11. Public awareness and participation
- Summary & Conclusions

1. Introduction

- Mercury is a chemical element and exists as liquid at room temperature and pressure.
- Mercury is widely used in products, such as thermometers, barometers, fluorescent lamps, etc.
- Industrial applications/uses in processes such as chlor-alkali production, vinyl-chloride-monomer (VCM) production, acetaldehyde production, etc.
- Mercury and methylmercury have triggered incidents with negative impacts on human health and the environment
- Japan (1950-60's) , Iraq (1950's. 1972) , Cambodia (1998)
- Mercury is recognized as one of the global hazardous pollutants due to the anthropogenic emissions.

1. Introduction

- Once released into the environment, mercury is never broken down to a harmless form and persists in the atmosphere, soil and aquatic phases.
- Due to environmental fate and transport it easily enters the food chain.
- Mercury-containing products and industrial mercury uses tend to be phased out.
- However it is still used in products such as fluorescent lamps , liquid crystal displays, etc.
- Risk reduction measures should be implemented through an appropriate ESM strategy for mercury wastes.

1. Introduction

- The Technical Guidelines (TG) follow decision VIII/33 of COP 8 of the Basel Convention
- Programme to support the implementation of the Strategic Plan focus area: B9 mercury waste
- Main focus of decision by COP is:
 - Developing partnerships for ESM of mercury waste
 - Developing capacity building and technical assistance programmes with prevention and reduction goals
 - Developing guidelines on the ESM of mercury waste, with emphasis on sound disposal and remediation practices
- The TG offer guidance for ESM of mercury waste and provide comprehensive information on mercury

1. Introduction

- **Scope of Technical Guidelines (TG):**
 - Focus on mercury and mercury compounds listed in Annex I to the BC as categories of waste to be controlled
 - Metal and metal-bearing wastes, namely mercury and mercury-bearing wastes (waste electrical and electronic assemblies or scrap containing components such as mercury switches)
 - Poisonous (acute) substances – liable either to cause death or serious injury to humans when swallowed, inhaled or by skin contact

1. Introduction

- **Scope of Technical Guidelines (TG):**
 - Toxic (delayed or chronic) substances – if when inhaled or ingested or if penetrate skin, may involve delayed or chronic effects
 - Ecotoxic substances – immediate or delayed adverse impacts to environment
 - Certain operations which may lead to recovery, recycling, reclamation, direct reuse or alternative uses (Section B Annex IV BC)
 - Disposal operations which do not lead to those alternatives (above)



1. Introduction

Compliance on ESM of Mercury Waste follows criteria under the Basel Convention to ensure:

1. Risk is reduced to a minimum, with social, economic and technical considerations into account

2. Availability of adequate disposal sites facilities

3. Parties involved in mercury waste management take necessary measures to prevent pollution or minimize adverse effects in the case of mishandling

4. Secondary movement is reduced to the minimum and managed in a sound and efficient manner to prevent adverse effects