



Mercury Terminal Storage Facility

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Options for consideration

Geographic consideration

- ✓ Regional [large] central facility/facilities
- ✓ National [small] facilities
- ✓ Export to foreign countries

Technical consideration

- ✓ i) Above-ground special engineered warehouse
- ✓ ii) Below-ground storage in geological formation (e.g., mines, special rock formations)

Issues to be considered long term storage in LAC

I. Technological

- Definition of mercury to be stored, e.g., chemical species (elemental, ionic), concentration, volumes/mass reduction
- Site-specific requirements:
 - geology
 - hydrology
 - natural disasters (earthquakes, floods, hurricanes)
 - location including accessibility (remote vs. road/railways infrastructure)
 - Decommissioning and long-term surveillance.

- Storage-specific requirements:
 - Chemical-physical criteria for the waste itself, *e.g.*, inert, immobilized, encapsulated
 - Infrastructure capacity including building materials
 - Leaching prevention, *e.g.*, evaporation, erosion, corrosion,
 - Monitoring systems (*e.g.*, to control all mercury captured)
 - Long-term documentation

- Transport to the facility (including interim storage)

- Volume/Mass reduction including the need for pretreatment/stabilization of excess mercury before storage

- **II. Public Health and Safety, environmental concerns**
 - Environmental impacts
 - Human health risk

- **III. Financial**
 - Capital/Investment costs
 - Operating and maintenance and costs
 - Financial arrangements (fee for service)

- **IV Political Process/Social and Political Acceptability**
- National level including legal framework, political stability, stakeholder (NGO and community) participation
- International level, including bilateral agreements for mercury owners how to use and access storage facility, and possible structures for shared responsibility
- Long-term provisions for sustainability

V. Human resources/Manpower

- Salaries
- Training on operations and maintenance, emergency preparedness

VI. Legal / Regulatory

- Legislation such as national import or export restrictions
- Licensing procedures
- Waste acceptance rules
- Documentation procedures