Fact Sheet

Mercury Over-Packing, Storage & Transportation

Mercury Overview:

- The Defense National Stockpile Center (DNSC) currently stores 4,890 tons of elemental mercury at three sites – New Haven IN (614 tons), Somerville NJ (2,885 tons), and Warren OH (1,391 tons).
- The steel flasks that hold the mercury are over-packed into drums as described below. There are no leaking flasks in the inventory.
- DNSC's elemental mercury is a commodity, not a hazardous waste product. Current market value of the mercury is approximately $90 million.
- DNSC has introduced extensive levels of mercury storage precautions that are unmatched by any known mercury storage entity in the world.

Mercury Over-packing Project:

- An environmental remediation company completed a mercury over-packing project for the Defense National Stockpile Center (DNSC) in April 2002. The work occurred at DNSC depots located in Somerville, N.J.; Warren, Ohio; and New Haven, Ind.
- At the Somerville and Warren depots, the over-packing project consisted of close visual inspections of the exterior of each 76-pound flask. Once this was done, six flasks were placed in each plastic-lined thirty-gallon sixteen-gauge carbon steel drum. At the New Haven depot, where the flasks had previously been over-packed in plastic bags, each bag was inspected for indications of flask leakage before placing the flasks in thirty-gallon drums.
- The inspections at Somerville and Warren confirmed that there were no leaking flasks. Inspections at New Haven resulted in the reflasking of eight flasks.
- Material formerly stored at Oak Ridge TN was safely transported to Warren OH and over-packed in 2005.

All DNSC depots have been validated to conform with the requirements of ISO 14001 (environmental management systems) and BSI OHSAS 18001 (occupational health and safety management systems).

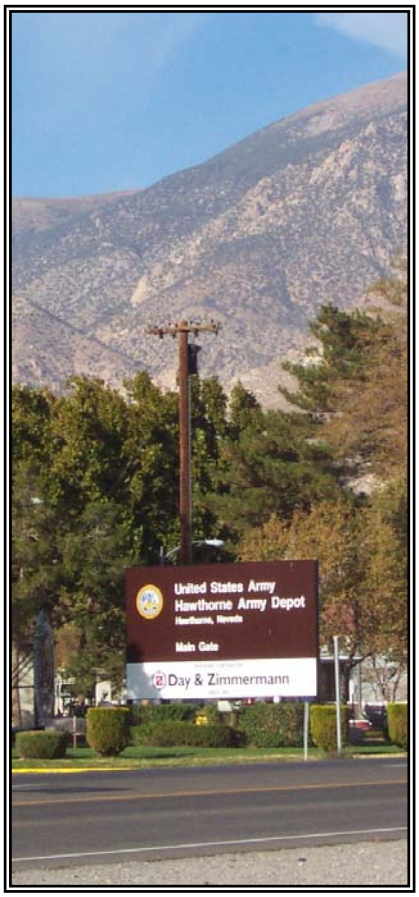
- Several layers of protection have been added inside the drums. The drums are lined with an epoxy-phenolic coating. A cushioning material that doubles as an absorbent mat was placed in the bottom of each drum. The flasks are separated by a cardboard divider for additional cushioning and are sealed in a thick plastic bag. Finally, each drum lid is equipped with a half-inch rubber gasket and a steel-locking ring that is bolted to seal the drum. The drums are very secure and both airtight and liquid-tight.
- The over-packed drums are placed on drip pans positioned on wooden pallets, and the entire inventory is in upgraded warehouse facilities. The mercury storage warehouses have new security features, new lighting, an upgraded fire suppression system, and floors that have been sealed with a mercury-resistant coating.
- Environmental assurance inspections will continue to play a major role in the safety and security of the mercury stockpile. To aid the environmental assurance inspection process, and to ensure continued safe storage, each pallet is stored one-high with adequate aisle space for clear vision of each drum and pallet.

Mercury Vapor Study Results:

- In August 2000, the State University of New York (SUNY) and New Jersey Institute of Technology (NJIT) began an intensive independent study of mercury vapor readings before and during the over-packaging procedure. Using state-of-the-Art Ohio LUMEX™ and Tekran™ mercury vapor analyzers, in addition to meteorological equipment, they measured mercury vapor concentrations in the surrounding community to establish upwind and downwind concentrations at key off-site locations.
- Data from SUNY and NJIT vapor monitoring inside, outside and downwind of all mercury stockpile warehouses show mercury vapor levels to be below established background readings and validates a determination that there was no discernable contribution of mercury vapor to the ambient air from mercury storage at the Somerville Depot.

Mercury Transportation to Hawthorne Army Depot:

- DNSC has more than 50 years experience shipping hazardous materials with no reportable mishaps during that entire time.
- A number of measures will be taken to ensure health, safety, security, and environmental protection during transportation of the mercury to Hawthorne Army Depot:
  - DNSC will comply with U.S. Department of Transportation (DOT) regulations pertaining to mercury as outlined in 49 CFR.
  - All truck drivers will be certified and trained in the handling of hazardous materials.
  - Shipments will be tracked via Global Positioning Satellite.
  - In the event of a transportation incident, drivers are instructed to call specific emergency telephone numbers.



Mercury Storage at Hawthorne Army Depot:

- Facility upgrades at Hawthorne will include sealed floors and additional intrusion protection. The levels of protection will include**:**
  - Closely controlled access.
  - Security and fire alarm systems.
  - Routine monitoring and inspections of mercury.
  - Spill prevention control and response procedures.