# Information Sheet

## Mercury Over-Packing Project

Corvera Abatement Technologies, Inc., a very respected environmental remediation company located in St. Louis, Missouri, 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, New Jersey; Warren, Ohio; and New Haven, Indiana.

At the Somerville and Warren depots, the over-packing project consisted of visual inspections, vacuuming, and wiping the exterior of each 76-pound flask with a towelette to clean the flask surfaces. Once this was done, six flasks were placed in plastic-lined thirty-gallon drums constructed of sixteen-gauge carbon steel. At the New Haven depot, where the flasks were previously over-packed in plastic bags, each bag was inspected for indications of flask leakage before placing flasks in thirty-gallon drums. The inspections at New Haven resulted in the repackaging of eight flasks.

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 now very secure and both airtight and liquid-tight.

The over-packed drums have been placed on drip pans positioned on wooden pallets, and the entire over-packed inventory has been relocated to 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 impermeable covering.

Environmental assurance inspections will continue to play a major role in our safety and security of the mercury stockpile. To aid our environmental assurance inspection process, and to insure our continued safe storage, each pallet is now stored one-high with adequate aisle space for clear vision of each drum and pallet.

In August 2000, the New York State University (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 depots show mercury vapor levels to be within established background readings and validates a determination that there was no significant contribution of mercury vapor to the ambient air from mercury storage at the DNSC depots.