

## Measuring Mercury in Environmental Samples other than Air

### *Headspace Screening*

Headspace screening may help assess whether or not elemental mercury is present on personal belongings. The EPA/ATSDR National Mercury Cleanup Policy Workgroup provides guidance for assessing personal belongings for mercury vapor.

([http://www.atsdr.cdc.gov/emergency\\_response/Action\\_Levels\\_for\\_Elemental\\_Mercury\\_Spills\\_2012.pdf](http://www.atsdr.cdc.gov/emergency_response/Action_Levels_for_Elemental_Mercury_Spills_2012.pdf)). The EPA/ ATSDR procedure is summarized below.

A field portable mercury detector may be used to screen clothing and other porous items (linens, bedding, curtains, etc.). The items should be bagged in plastic bags so that the number of items fills approximately one-half to two-thirds of the bag. The bagged materials should be removed to a warm, uncontaminated area. The bags should remain sealed for at least one hour to allow the contents in the bag to reach equilibrium. The head space in the bag should be tested by making a small hole in the bag and inserting the wand or extension tubing of the field portable mercury detector. If readings are consistently greater than 10 mcg Hg/m<sup>3</sup>, the items in the bags are probably contaminated with mercury.

Some EPA and ATSDR mercury spill reports refer to attempts to salvage contaminated items by airing them on a clothesline outdoors, in which case the items should be checked again by headspace screening before assuming they can be used. Items should be re-bagged and checked by headspace screening following the same procedure as was used previously to determine the effectiveness of the attempted cleaning.

If contaminated items cannot be salvaged, they may have to be disposed of as hazardous waste. (See “**Laws of NYS Regarding Use and Disposal of Mercury and Mercury-containing Products**”).

### *Wipe Samples*

In general, wipe samples are not useful for evaluating elemental mercury spills. Portable mercury detectors are better suited for assessing the extent of elemental mercury contamination.

NYSDOH has no guidelines to evaluate wipe samples for mercury and there are few guidance criteria for acceptable surface contamination levels from other state or federal agencies. Wipe sample results are affected by the amount of dust, the texture of the surface, the location(s) sampled, and the wiping method. Mercury wipe sample results do not indicate whether elemental, inorganic, or organic mercury compounds are present. Consequently, mercury wipe samples are not recommended for assessing possible elemental mercury exposure.

In some cases, a properly designed wipe sampling investigation may help the risk manager to address a specific problem. The sampling objective, methodology, and data interpretation should be clearly defined in a site-specific sampling work plan before wipe sampling for mercury is performed.