**Mercury Information and Identification**

The following information is provided to Penn State employees, students and contractors to ensure appropriate procedures are followed to protect the University community, the environment and visitors from the hazards of mercury.

# Liquid Mercury Identification

Mercury is a very heavy viscous liquid that is bright silver in color ("quick silver"), unless it is covered in dust or debris. Beads, droplets and puddles can often be identified by their spherical shape.

# Hazards of Mercury:

Mercury is classified as a poison. However, mercury is not a hazard when handled properly or when spills are cleaned promptly and properly. It is when mercury is freshly spilled or previously undetected spills are disturbed that hazards can occur. A thin layer of dust or other debris is often all that is needed to prevent vaporization of droplets. The most common route of exposure is inhalation of vapors.

# Equipment that commonly contains mercury

(In many cases the liquid inside will be silver, but do not assume it is mercury-free if you do not see this.):

* Thermometers
* Barometers
* Manometers
* Switches in mechanical rooms (pressure and temperature sensors)
* Fire Alarm Pull Stations

# Locations where mercury is found

In current and past lab areas, it is assumed that mercury is present unless proven otherwise via surveys, etc.

Liquid mercury can be found in any area where it has been previously used (e.g. laboratories, offices, mechanical rooms). It has been found on floors behind and under laboratory furniture, inside cabinets, in chemical fume hoods, in laboratory sinks, floor drains and under floor tiles.

This is especially important during maintenance or renovations and even dusty flooring

should be assumed to contain mercury until proven otherwise. This requires careful observation when conducting such work.

**All laboratory drains and pipes are assumed to contain mercury until proven otherwise.** This does not pose an exposure hazard to occupants during normal building use. However, there can be hazards during maintenance or renovations when accidental spills may occur.

# Precautions to follow during maintenance and renovations in present and past laboratory areas:

* Wear rubber gloves and safety goggles.
* Cut horizontal runs of pipe from the top down whenever possible. Drain pipes before cutting when possible.
* **DO NOT** hold equipment such as saws, wrenches, etc. under the area being cut whenever possible.
* Catch contents of drain or pipe in a bucket and examine contents for liquid mercury (silver liquid).
* After drain or pipe is fully empties, seal open ends with tape.
* When moving furniture and cabinets look underneath with flashlights **before**

moving if possible.

* After moving, check the area for mercury beads with a flashlight (held horizontally as close to floor as possible).
* When removing drain traps or cutting/removing pipe, hold a plastic bucket under the pipe as close as possible.

# If liquid mercury is found at any time or collected from pipes during maintenance and renovations call EHS immediately.

* + **Stop work and stay out of area until EHS arrives or contacts you by phone.**
  + **No one but EHS or their designated contractors may handle, remove or dispose of any mercury containing materials.**
  + **Call EHS at 865-6391 (8AM - 5 PM) or 863-1111 (after 5PM) if you have any questions or need a material identified.**
  + **DO NOT handle the material yourself.**