

## MERCURY REMOVAL IN SCHOOLS

Mercury is a silver-colored, liquid metal that occurs naturally in the earth's surface. Mercury was used for many years in measurement instruments used by schools, primarily in science labs but also in the nurse's office, gymnasiums, and boiler rooms. Schools should ensure that staff members understand the dangers associated with mercury and follow the specified protocols below if mercury is located or spilled.

**WHERE IS MERCURY FOUND IN SCHOOLS?** Liquid mercury is used in measurement instruments including thermometers, barometers, sphygmomanometers, sling psychrometer, hygrometers, laboratory manometers, anemometers, etc. Mercury can also be found in lights (particularly gymnasium and fluorescent lights), thermostats, heating/ventilation and air conditioning (HVAC) systems, plumbing, cafeteria equipment and medical devices.

**WHY IS MERCURY DANGEROUS?** Mercury's properties are toxic and allow it to break into small droplets and vaporize. Mercury can be absorbed through the skin, lungs or intestinal tract in either liquid or gaseous form and can affect the central nervous system, resulting in memory loss, headache, sleeplessness, irritability, and tremors. Short-term exposure to high levels can also cause coughing, shortness of breath, chest pain, nausea, vomiting, diarrhea, fever, high blood pressure and skin rashes. In 2004, New York State banned the purchase of elemental mercury in schools.

**WHAT SHOULD A SCHOOL DO TO PREVENT MERCURY EXPOSURE?** Schools should inform staff that instruments containing mercury may be present in the school. Staff members should thoroughly inspect rooms for instruments or containers that house mercury.

**WHAT SHOULD A SCHOOL DO IF MERCURY IS LOCATED?** Do not handle, move, or remove items containing mercury. Mercury requires professional disposal and can cause hazardous conditions and expensive damage if it is discarded or poured down the drain.

1. Use the inventory form to document the location of any equipment containing mercury.
2. Provide the form to your custodian who should prepare a Passport work request for mercury removal, using Trade Code 75.
3. The DOE Deputy Director of Facilities (DDF) will approve the work request and have a work order prepared for removal by a professional waste removal company.
4. The professional waste removal company will use the inventory to locate and remove mercury sources, and may conduct an assessment of the area where the mercury was found to determine whether it has spilled.

### WHAT SHOULD A SCHOOL DO IF MERCURY SPILLS?

1. Do not touch it or attempt to clean it up.
2. Evacuate the area immediately.
3. Close and lock the door to the affected area.
4. Immediately notify the principal and custodian, who will arrange for professional clean-up.

**WHAT SHOULD SCHOOLS DO TO REPLACE EQUIPMENT WITH NON-MERCURY ALTERNATIVES?** Schools should ensure that devices containing mercury are handled professionally, in accordance with the protocols described above. Schools can replace devices with alternatives that do not contain mercury.

DEVICES CONTAINING MERCURY	REPLACEMENT ALTERNATIVES
Lab thermometer	Alcohol glass bulbs, mineral spirits glass bulbs, or digital.
Barometer	Aneroid or digital; new liquid one is being developed.
Spectrum tube	Ask your scientific supplies distributor for a list of alternative gases
Gas law apparatus	A simple Charles' Law Apparatus may suffice.
Anemometer	Digital versions are available.
Other metallic mercury containing instruments	Check with the original manufacturer for contents of older devices and components; they may have a swap-out program available. Non-mercury alternatives are available for most instruments. Additional information is available at: <a href="http://www.epa.gov/ginpo/seahome">http://www.epa.gov/ginpo/seahome</a> .