Hazards make mercury unwanted in the workplace

Mercury has a deservedly bad rap these days. Hardly a month goes by without a report of a mercury spill in a school. In December 2006, a Minnesota secondary school closed for three days and incurred $150,000 in clean-up costs when a student dropped a barometer.

That same month, a mercury spill closed a Los Angeles subway stop for a day and prompted terrorist speculation. It turned out that it was an accident.

Healthcare has wrestled with the mercury problem, too. OSHA hit St. Francis Hospital in Evanston, IL, with a $25,000 fine for noncompliance related to a mercury spill. The hospital failed in its emergency response plan, inadequately trained employees, and neglected to notify workers of potential health hazards after the incident, according to the February 13 Daily Northwestern.

Michigan is the latest state to put the squeeze on mercury. Beginning in January 2008, the state will prohibit the sale of mercury-containing gastrointestinal devices, and the sale and use of mercury-containing blood pressure devices.

Accidental spills represent the greatest risk of occupational exposure to mercury in healthcare. Mercury spills also can present a risk to patients and other individuals in the spill area, and frequently cause offices and units to shut down or entire facilities to evacuate during response and cleanup activities.

All employees, especially those who handle mercury-containing equipment, should be trained in emergency procedures to follow in the event of a spill. The emergency plan should be posted and should cover cleanup procedures, personal protective equipment, and use of respirators. Mercury spill kits should be provided and kept handy for use in an emergency. Never use a regular vacuum cleaner for mercury spills. Use a special mercury vacuum cleaner and a water-soluble mercury decontaminant.

Of course, eliminating mercury from the workplace is the best way to avoid the hazard from a spill in the first place. Below is a mercury elimination checklist adapted from Hospitals for a Healthy Environment. It identifies a number of policies, procedures, and actions for booting mercury out the door.

Quick self-inspection checklist: Eliminating mercury in healthcare

- The facility has a policy for the reduction and virtual elimination of mercury.
- Mercury management policies address the following:
  - Protocols for safe handling of mercury-containing materials
  - Mercury spill cleanup procedures
  - Disposal procedures include recycling or regulated safe disposal to avoid disposal in the waste stream
  - Education and training of employees about facility protocols, including information about mercury and its effects on human health and the environment
- You have inventoried all mercury devices/sources, including the labeling of devices containing mercury and plan to replace with nonmercury devices.
- Your plan calls for regularly reviewing mercury use reduction and elimination progress.
- Patient mercury thermometers have been replaced.
- The majority (75%) of sphygmomanometers have been replaced.
- The majority (75%) of clinical devices (e.g., bougies, Miller Abbott tubes, dilators, etc.) have been replaced, and you have a plan to eliminate the remaining devices.
- Your facility recycles fluorescent bulbs.
- Your facility has a battery-collection program (e.g., mercury and alkaline batteries).
- The facility’s purchasing policy statement bans the purchase of mercury-containing items without prior approval (for example, where a nonmercury device or chemical is not available). The request to purchase should include a plan to manage the mercury safely and to collect all waste.
- Laboratory devices and chemicals are included in the elimination and reduction plan.

Source: Hospitals for a Healthy Environment.