



Green Guide for Health Care Newsletter

August 2006

Green Guide Tips

Simple "How-To's" for Using the Guide

How To Eliminate Mercury from Facility Construction and Operations

Excerpted from the forthcoming *Green Guide for Health Care Mercury Elimination Technical Brief* by Jamie Harvie, Institute for a Sustainable Future.

Inclusion of a mercury elimination requirement in the 2006 *AIA Guidelines for Design and Construction of Hospital and Health Care Facilities* reflects the growing awareness in the health care industry that mercury elimination should be a priority in both facility design and operations and medical care.

Mercury-free Specifications

Mercury elimination is becoming standard practice in some areas of health care facility design:

- Mercury-containing thermostats, switches and other stand-alone mercury-containing measurement devices are being replaced with safe, effective mercury-free alternatives.
- Amalgam separation devices are a common best practice in dental installations.
- Low-mercury fluorescent lamps are becoming more commonplace and cost-competitive.

Some building equipment, particularly equipment associated with the HVAC system, continues to use internal mercury-containing measurement devices:

- Mechanical systems (switches and thermostats).
- Systems that move, store, meter, or regulate liquids (measurement devices, valves, flow switches).
- Older fire suppression and security systems.

High quality, cost-effective, and readily available alternatives are available for the majority of equipment types listed above. However, due to the number of devices that contain "hidden" mercury components or are not openly labeled as having mercury-containing products, it is important to specify mercury-free components in all relevant sections of the construction specifications.

Mercury Elimination Plan

Successful implementation of the *Green Guide* mercury elimination credits – MRp2 and MRC8.2-- requires an understanding of potential mercury sources within the building. Developing a spreadsheet of potential sources and an action plan for their removal/avoidance are the first steps in mercury elimination.

The following plan paraphrases the Health Care Without Harm "Mercury Alternatives" website, <http://www.noharm.org/mercury/alternatives>.

- Identify mercury-containing items using resources from organizations such as Health Care Without Harm, National Institutes of Health, U.S. EPA, and Hospitals for a Healthy Environment.
- Implement a mercury-free specification and purchasing policy that targets construction materials, equipment, and medical supplies. Most purchasing policies allow for phase in substitutions as existing equipment ages rather than rushing premature equipment replacement. The policy must also develop a plan for proper disposal or recycling of mercury-containing materials as they are replaced.
- Set mercury reduction goals for mercury-containing devices in use at the facility. Policies that phase in substitutions in conjunction with a facility-wide education campaign will raise staff awareness of the importance of eliminating mercury use.
- Measure success through a program such as the Hospitals for a Healthy Environment annual "Making Medicine Mercury Free" award.

Case Study: Strong Memorial Hospital, Rochester, NY

Strong Memorial Hospital in Rochester, NY, began a mercury reduction plan in 1997 in response to the costs associated with mercury spill response, disposal, and training. The support of high-level hospital staff was mirrored by facility-wide training in program objectives, mercury awareness, how to identify mercury-containing devices, and proper spill response and disposal techniques. Information on hazardous materials was incorporated into training for new nursing staff, annual Resource Conservation Recovery Act (RCRA) training, and the project manager's renovation and construction manual.

The hospital developed new procedures to collect mercury-containing devices, such as specially labeled containers to collect mercury thermometers. Signs on sharps containers remind staff not to place thermometers in medical waste containers. Battery drop-off locations were established throughout the facility, and a centralized location was identified to collect spent fluorescent lamps.

Through its policy and education initiatives, Strong Memorial Hospital successfully replaced all mercury sphygmomanometers, reduced mercury thermometer use by over 90%, replaced all mercury-filled GI tubing with tungsten-filled tubing, and discontinued use of mercury compounds in the histopathology and other clinical laboratories. Only one year after the program's initiation, the annual JCAHO survey cited Strong Memorial's mercury replacement program as a successful quality improvement initiative.

News

1. **Subscribe to the 2006-2007 H2E (Hospitals for a Healthy Environment) Green Building teleconference series, moderated by the *Green Guide for Health Care!*** Effective October 2006, all H2E teleconferences will become a H2E Subscriber Benefit. For an annual \$199 subscription fee, H2E Subscribers will have access to 26 teleconferences (including the green building topics), the ability to apply for H2E awards, and staff technical assistance. Visit <http://h2e-online.org/subscribe/index.htm> for more information.
2. **Spaulding Rehabilitation Hospital** in Charlestown, MA, a *Green Guide* Pilot Project, is the first Massachusetts hospital to receive a Green Building Initiative Planning Grant from the Kresge Foundation. President and CEO Judith Waterston announced, "Spaulding will analyze an array of design options to integrate our new hospital with green features that appreciate the needs of our patients, visitors and staff. We will look at the realities of the external environmental impacts, and ways that building systems work together." For more information, visit <http://spauldingrehab.org/newsdetails.id=1030,printversion>.
3. **Saint Joseph Regional Medical Center in South Bend, IN**, a *Green Guide* Pilot Project, has launched a website to share the development of their new green facility with the community. Visit <http://mynewhospital.org> for more information.
4. **Gulf Coast Green 06 – Symposium on Building in Houston, Texas**, will spotlight health care design and construction. Hosted by AIA Houston Committee on the Environment (COTE) on **September 27 and 28**, the conference features both local and national speakers who will explore sustainable or "green" building in the Gulf Coast Region. Keynote speakers include Bob Berkebile with BNIM Architects, Kansas City and Robin Guenther with Guenther 5 Architects, New York. Register at: www.gulfcoastgreen.org.
5. On November 5, "Designing the 21st Century Hospital: First Do No Harm", a workshop at **Healthcare Design 06** in Chicago, Illinois, will present **five groundbreaking white papers** commissioned by the Robert Wood Johnson Foundation that provide further evidence that healthier facilities provide community benefits, improve patient outcomes, the quality of the patient experience, the bottom line, and the global environment. Register at: www.healthcaredesignmagazine.com/Conference.htm.
6. Two half-day trainings "**Using LEED for New Construction on Healthcare Projects**" will be offered at the US Green Building Council's **Greenbuild** conference: Tuesday, November 14 and Friday, November 17. Register at: www.greenbuildexpo.org.
7. **Support the *Green Guide for Health Care!*** Visit the [Supporters](#) section of the *Green Guide* website for information on how to support our work. All donations to the *Green Guide* are tax deductible to the fullest extent of the law.
8. ***Green Guide* version 2.1 is available in hard copy and on our website.** Visit the *Green Guide Download* page at www.gghc.org to purchase printed copies through our Online Store, or to download the electronic PDF version for free.
9. **The *Green Guide* welcomes our new Endorsers:** Lees Carpets and Puzer Canada.