

US EPA ARCHIVE DOCUMENT

COMMUNITY INFORMATION SHEET



Could your family be affected?

EPA, along with Hospitals for a Healthy Environment, the American Hospitals Association, the American Nurses Association, and Health Care Without Harm, sponsors two awards that target mercury pollution.

— American Hospitals Association

After becoming aware of the presence of PVC within its neonatal units, one hospital system conducted a PVC audit and identified alternative materials for several of its devices.

— Health Care Without Harm



Reducing Air Pollution from: Hospitals

Why should hospitals reduce air pollution?

People who are exposed to toxic air pollutants at sufficient concentrations, for sufficient durations, may increase their chances of getting cancer or experiencing other serious health effects, such as reproductive problems, birth defects, and aggravated asthma.

Pollution prevention can reduce the impact of air pollution by using materials, processes, or practices that reduce or eliminate air pollution at the source.

Medical hospitals are facilities that engage in providing general medical, surgical, and specialty services. Equipment breakage and waste incineration may release pollutants into the air and may contribute to health concerns in hospitals and in the community.

Hospitals implement pollution prevention strategies not only to help comply with federal, state, local, and Tribal laws but also to further minimize impacts on human health and the environment. Check with your state, local, and Tribal agencies for existing regulations.

What kinds of air pollutants may come from hospitals?

- Hospital operations can produce emissions of toxic air pollutants such as mercury and dioxin.

Mercury

- Mercury can be used in thermometers, blood pressure cuffs, thermostats, fluorescent lights, and other products found in hospitals.
- At room temperature, elemental mercury is a liquid and emits toxic vapors, which can be inhaled into the lungs and absorbed into the bloodstream.
- Mercury is very toxic to humans. It impacts the kidneys, liver, respiratory system, and central nervous system.

- When emitted indoors, mercury will eventually leak into the outdoor air through doors, ventilation systems, and other openings. It can also reach outdoor air through the incinerations of mercury-containing products.

Polyvinyl Chloride (PVC)

- PVC is used in plastic products such as IV bags, surgical tubing, other medical supplies, and construction materials.
- PVC is a source of toxic air pollutants when incinerated. Some hospitals incinerate their waste onsite.
- Dioxin is a potent carcinogen and interferes with normal reproduction and development at low doses.

How can hospitals reduce air pollution?

Making changes in hospital operations can stop pollutants at the source and increase efficiency. By evaluating and improving work practices, hospitals can decrease emissions, reduce operational costs, and protect employee and public health.

Examples of changes in work practices that help reduce air pollution include:

Replacing Sources of Mercury

- Use alternatives to mercury thermometers, mercury blood pressure cuffs, and other equipment.
- Switch to mercury-free preservatives.
- Insist on using recovered and recycled mercury in all products that do not yet have mercury-free alternatives.

Locating Sources of Mercury

- Use a mercury audit on a regular basis to locate sources of mercury.
- Formulate a plan to reduce sources of mercury.

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Communicating Mercury Dangers

- Develop a training and communication program.
- Train employees to look for ways to reduce mercury pollution.
- Develop and implement a protocol to prevent hospital employees from improperly disposing of mercury.

Reducing PVC Use

- Conduct a PVC audit.
- Look for PVC-free products to replace PVC products.
- Use PVC-free medical devices, construction and furnishing products whenever possible.

As a community, what can you do to help reduce air pollution from hospitals?

Make Connections

- Get to know local hospital administrators because they know best about the materials and procedures used in their hospitals and the regulations with which they must comply.
- Keep local media aware of progress by sending them updates. Publicity can reward success and attract more public involvement.

Make a Plan

- One idea is to form a work group that includes local hospital administrators to develop and implement workable pollution reduction plans.

Locate Resources

- Use the “For Further Information” list below to find governmental and nonprofit contacts who can provide help with analysis, technical information, equipment, and funding.

Lobby for Pollution Prevention Certification

- Help hospitals lobby societies such as the American Hospital Association to sponsor a certification for those who actively strive to reduce air emissions.

Encourage a “Top Down” Pollution Prevention Approach

- Many hospitals are part of a larger hospital system that includes doctors’ offices, outpatient clinics, and laboratories.
- Lobby hospitals to aggressively implement pollution prevention measures in all parts of its system.

Help Hospitals Raise Mercury Awareness in the Surrounding Community

- Encourage hospitals to sponsor a “mercury turn-in” event in the surrounding community to collect mercury thermometers and batteries.
- This opportunity will allow them to inform the community about mercury dangers.
- Such an event will promote the hospital as a cooperative partner within the community.

For Further Information

- Hospitals for a Healthy Environment: www.h2e-online.org, (800) 727-4179
- Health Care Without Harm: www.noharm.org, (703) 243-0056
- American Hospital Association: www.hospitalconnect.com
- American Nurses Association: www.nursingworld.org, (800) 274-4262
- Sustainable Hospitals Project: www.sustainablehospitals.org, (978) 934-3386
- Healthcare Environmental Resource Center: www.hercenter.org
- EPA Air Toxics Web Site: www.epa.gov/ttn/atw/
- Community-Based Projects: <http://www.epa.gov/air/toxicair/community.html>
- Community information, regional, state contacts: www.epa.gov/epahome/whereyoulive.htm
- Pollution prevention awards: State, local, and Tribal government agencies, universities
- For more information, please see the Resources section of the Owner/Operator Information Sheet.

