



THE CA COMPASS



New Directions in Compliance Assistance



Spring 2006

Volume 2 Number 1



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**Stewardship in Action:
Our Responsibility—Our
Environment**

**National
Environmental
Partnership Summit**

May 8-11, 2006

Atlanta, Georgia
www.EnvironmentalSummit.org

More details on page 13



Improving Environmental Performance at Healthcare Facilities

The safety and well-being of others is paramount to a well-managed medical facility. However, in providing quality health care, hospitals and other health care facilities use large quantities of materials and generate large quantities of diverse waste, portions of which are hazardous. The generation of these wastes has an impact on the communities the hospitals serve and subjects hospitals to regulatory requirements. EPA is helping educate health care facilities about their regulatory requirements and ways to reduce the negative impact of their operations. By reducing hazardous and non-hazardous wastes, thousands of hospitals across the country are demonstrating that small measures can go a long way. The money saved in disposal fees can be reinvested in patient care and the environment also benefits.



Dartmouth-Hitchcock Medical Center, New Hampshire.
Photo by John Leigh

For smaller healthcare facilities facing mounting operating costs, it is not always easy to focus on the environment. Voluntary programs such as Hospitals for a Healthy Environment (H2E) and other effective tools showcased in this article can help your facility protect patients, visitors, staff, and the surrounding community as a whole.

Waste disposal fees can be significantly reduced if hospital staff implement some common sense ideas such as those detailed in this Newsletter. Emergency rooms, operating rooms, housekeeping departments, labs, pharmacies, imaging, and maintenance facilities all generate hazardous wastes. Hospitals also provide housing, offices, and food services, all of which generate a large *(Continued on page 2)*

Improving Environmental Performance at Healthcare Facilities (cont.)

amount of solid waste. Learning the difference between these two types of waste and implementing simple procedures to separate them from generation to disposal can greatly reduce costs. Hazardous and regulated medical waste disposal costs about 30 cents per pound for disposal compared to 4 cents per pound for non-hazardous waste.



Can you spot the waste management mistake? It's the computer monitor (hazardous waste) mixed in with solid waste in the dumpster. Region 2 photo.

Environmentally Preferable Purchasing

Environmentally Preferable Purchasing (EPP) encourages and assists facilities in purchasing of environmentally preferable products and services. "Environmentally preferable" products or services are those which have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison looks across the life cycle of the product or service including factors such as raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and disposal.

EPP can help healthcare facilities meet environmental goals, improve worker safety and health, reduce liabilities, and reduce disposal costs. Federal agencies are required by Executive Order 13101 and the Federal Acquisition Regulation to identify and purchase environmentally preferable products and services, to the extent practicable. There are a number of green purchasing programs that

healthcare facilities may choose to participate in, notably the Federal Electronics Challenge (www.federalelectronicschallenge.net), that encourages federal facilities to purchase more environmentally sound electronics and to use and dispose of them in environmentally responsible ways. Purchasers can find information to assist them in choosing products in EPA's database of environmental information for Products and Services. See <http://yosemite1.epa.gov/oppt/epstand2.nsf>

Energy Efficiency

Cost savings from reduced energy use can be significant because the healthcare industry is one of the most energy-intensive sectors in the United States. Healthcare facilities average 176,491 Btu energy usage per square foot and hospitals average 228,900 Btu per square foot – more than twice the typical energy use for office space. Hospitals run continuously and uses such as diagnostic equipment, air handling (heating and cooling), and technical equipment can require large amounts of energy. A well-designed energy conservation strategy can provide significant cost savings up to \$250,000 per year. Replacing standard fluorescent lights with high efficiency T-8 or higher efficiency T-5 lights can reduce lighting costs by 35%. Replacing incandescent light bulbs with compact fluorescent lights can save 75%. Don't forget exit signs—high efficiency light emitting diode (LED) exit signs run on 87% less electricity than incandescent exit signs. See <http://www.energystar.gov/healthcare>. For more information on lighting design, see <http://www.iesna.org/> and <http://www.designlights.org/>.

Mercury and Other Toxins

Healthcare facilities pose a major environmental and public health concern due to the use of many toxic materials in their operations. These include phthalates and persistent, bioaccumulative toxics (PBTs) such as mercury and dioxin, which can be released from incineration of medical (*Continued on page 4*)

A Word From the Director...

This issue of the *Compliance Assistance Compass* focuses on the environmental issues associated with the healthcare industry and ways healthcare facilities can manage their operations to both comply with environmental requirements and reduce adverse environmental impacts. I am particularly proud to highlight successful collaboration between several EPA headquarters and regional offices, states, and healthcare organizations that has effected change within a diverse industry with operations in every state in this country.

You will read about the success our regional offices in New England and New York (Regions 1 and 2) have had in implementing their strategies that integrate incentives, monitoring, assistance, and traditional enforcement approaches to achieve environmental compliance at healthcare facilities.

Concurrently, EPA's Office of Pollution Prevention and Toxics Substances (OPPTS) has been leading the H2E initiative, designed to help hospitals eliminate mercury and significantly reduce the volume and toxicity of their waste streams. The combination of these efforts, along with compliance assistance (CA) tools like the *Profile of the Healthcare Industry* and the new Healthcare Environmental Resource Center (www.hercenter.org) developed jointly by our office and OPPTS, has resulted in an effort that has had, and will continue to have a tremendous effect on the improved environmental operation of healthcare facilities. For example, recent surveys of healthcare facilities in Region 2 indicate that the initiative is establishing a solid foundation of new information. Before the initiative, only 24% of survey respondents rated themselves as having a high understanding of the Resources Conservation and Recovery Act (RCRA) requirements; now 92% of healthcare respondents rate themselves with this level of understanding.

EPA has also established a partnership with the Joint Commission on Healthcare Organization Accreditation (JCAHO), which sets standards for the healthcare industry and issues accreditations to facilities, to help them educate their clients about environmental compliance



requirements. Building on this partnership, EPA hopes to institutionalize environmental regulatory compliance and pollution prevention practices in the healthcare sector. One tool being developed for JCAHO inspectors and hospital personnel is the *Environmental Compliance Improvement Guide*. The guide links JCAHO performance elements to specific federal regulations and pollution prevention practices.

See:

<http://hercenter.org/regsandstandards/jcahointro.html>.

We hope you find this newsletter informative and useful for sharing information among the many providers of CA. Our next edition of the COMPASS, which we hope to publish in the fall, will focus on assistance to the Education Sector. We welcome your comments and look forward to receiving future stories from you. You can contact Deborah Thomas with your ideas and comments at (202) 564-5041 or by e-mail at thomas.deborah@epa.gov.

Sincerely,
Jim Edward, Director
Compliance Assistance and Sector Programs
Division
Office of Compliance

Improving Environmental Performance at Healthcare Facilities (cont. from page 2)

waste. Mercury is a potent neurotoxin, affecting the brain and the central nervous system. Pregnant women, women of childbearing age, and small children are at greatest risk. Mercury can cross the placenta and cause irreparable neurological damage to the fetus.

Small Amounts of Mercury Can Contaminate a Lot of Tuna Fish

If the mercury from one typical home thermometer gets into the environment, it can bioaccumulate in the food chain to contaminate as many as 9,000 cans of tuna to 1.0 ppm. One weighted esophageal dilator can contaminate 266,000 cans of tuna. One desk-mounted sphygmomanometer can contaminate up to 492,000 cans of tuna. *Source: "Protecting by Degrees," Healthcare Without Harm, http://www.noharm.org/library/docs/Protecting_by_Degrees_2.pdf*

Hospitals generate a wide variety of hazardous waste, such as chemotherapy and antineoplastic chemicals, solvents, formaldehyde, photographic chemicals, radionuclides, and waste anesthetic gases. They produce 2 million tons of non-hazardous solid waste each year—1% of the total municipal solid waste in the United States. Medical facilities contribute to air pollution control problems such as smog, depletion of the stratospheric ozone layer, and air toxics.

The treatments chosen to address health issues also can have environmental impacts. For

example, pharmaceutical use of lindane-containing products was banned in California because residues from these products were contaminating drinking water. Because lindane can be toxic to the brain and other parts of the nervous system, the Centers for Disease Control and Food and Drug Administration permit the use of lindane-containing products for treatment of head lice and scabies with caution and only when treatment with safer alternatives has failed.

Environmental Compliance Issues

State and Federal environmental inspectors at hospitals are finding that some types of environmental violations are common. These include improper or missing hazardous waste labeling, improper disposal in floor drains or in the regular trash, and no Spill Prevention Control and Countermeasure Plan. See page 10 for more common violations. Facilities can get help to improve their environmental performance by using the tools listed in the Tools section of this newsletter (pages 11-13). EPA has also developed an Audit Policy that encourages voluntary discovery, self-disclosure, and prompt correction for any industry type. Information on the Audit Policy can be found at <http://www.epa.gov/compliance/incentives/auditing/auditpolicy.html>. For healthcare facilities that are also small businesses (with 100 or fewer employees), EPA's Small Business Compliance Policy may provide further incentives. See <http://www.epa.gov/compliance/incentives/smallbusiness/>. Many of these tools can be found through the new EPA-sponsored Healthcare Environmental Resource Center at www.hercenter.org.

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EPA's Healthcare Compliance Assistance Activities Planned for FY 2006

In addition to the activities described in other parts of this newsletter, EPA Regions 2, 4, and 5 are planning specific assistance activities this fiscal year to help hospitals and other healthcare facilities comply with environmental laws and regulations. (Continued on next page)

Planned CA activities include distributing EPA's *Profile of the Healthcare Industry* (EPA/310-R-05-002), conducting workshops and training on RCRA compliance and environmental management systems (EMSs), developing tools to use in environmental compliance audits, training in self-audits for healthcare facilities, and outreach to encourage hospitals to join H2E. Several EPA Regions also plan to visit hospitals to provide CA or conduct an environmental audit. Region 2 is overseeing the development of state specific posters for dental amalgam best management practices to be distributed to all dental offices within New York and New Jersey. See the table below for more information on FY 2006 Regional CA activities.

EPA's Healthcare Compliance Assistance (CA) Activities Planned for FY 2006

CA Activity Title	Activity Description	Activity Types	EPA Region and Contact Information
FY06 Healthcare Initiative	Distribute CA materials, e.g., mail the <i>Profile of the Healthcare Industry</i> (Sector Notebook); Invite hospitals to join H2E and do a self-audit.	Outreach	New York, NY - Region 2 Diane Buxbaum (212) 637-3919 buxbaum.diane@epa.gov
FY06 CD Tool Auditing and Checklists	Develop and distribute tools on a CD for environmental compliance auditing initiatives (e.g. fleet maintenance, healthcare, universities).	Outreach Tools Developed	New York, NY - Region 2 Ron Lockwood (212) 637-3413 lockwood.ron@epa.gov
FY06 EMS Healthcare Tutorial	Conduct EMS workshop(s) for healthcare, including federal facilities. Develop training materials and distribute tools at the workshops.	Outreach Tools Developed Workshop/Training	New York, NY - Region 2 Linda Longo (212) 637-3565 longo.linda@epa.gov
FY06 Dental Amalgam Poster Grant	Oversee grant to develop two state-specific posters for dental amalgam best management practices. The posters will be distributed to all dental offices in each state.	Outreach Tools Developed	New York, NY - Region 2 Linda Longo (212) 637-3565 longo.linda@epa.gov
FY06 H2E New York City Hospitals Grant	Oversee a grant to create newsletter and web page and develop a grant writing training. An area hospital will be selected for audit and there will be quarterly meetings for participants.	Ongoing Facility-Specific Work Presentations/Meetings Tools Developed Workshops/Training	New York, NY - Region 2 Linda Longo (212) 637-3565 longo.linda@epa.gov
FY06 General Presentations Audit Policy	Conduct general presentations to the regulated community to support the audit policy initiatives.	Outreach Tools Developed Workshops/trainings Presentations/meetings	New York, NY - Region 2 John Gorman (212) 637-4008 gorman.john@epa.gov
Compliance Assistance Workshop for Hospitals and Healthcare Facilities	Two environmental CA workshops for hospitals are planned in remainder of FY 06. The Region will be partnering with state environmental programs in South and North Carolina in July and September 2006, respectively.	Workshops	Atlanta, GA - Region 4 Delane Anderson (404) 562-9681 anderson.delane@epa.gov
Hospital Facility Visit	Facility visits to provide CA at smaller hospitals to help them understand and comply with RCRA regulations.	Facility Visit	Chicago, IL - Region 5 Uylaine Barringer (312) 886-4454 barringer.uylaine@epa.gov
Healthcare Workshop	Workshop for hospitals and health-care facilities will provide an overview of how to comply with RCRA, understand P-listed waste, and report Toxic Release Inventory (TRI) data.	Outreach Tools Developed Workshop/Training	Chicago, IL - Region 5 Uylaine Barringer (312) 886-4454 barringer.uylaine@epa.gov

Source: CA planning data from EPA's Integrated Compliance Information System, (ICIS) as of January 04, 2006.

Success Stories in Achieving Healthcare Compliance

Region 2: Multi-Year Healthcare Initiative

U.S. EPA Region 2 (New York, New Jersey, Puerto Rico, and U.S. Virgin Islands) has embarked upon an initiative at 480 facilities in the healthcare sector to: 1) increase the compliance rate among medical facilities; 2) encourage the development and implementation of environmental management systems (EMSs) as a way of ensuring that hospitals have adequate systems in place to maintain compliance; 3) eliminate the mercury-containing waste from the healthcare waste stream by 2005; and 4) cut the volume of all hospital waste generated in half by 2010.

Region 2 plans to achieve these goals by:

- ① Providing assistance (e.g., workshops, websites, checklists, etc.) to healthcare facilities to help them understand their environmental obligations, identify pollution prevention opportunities, and develop EMSs;
- ② Providing incentives to encourage healthcare facilities to perform voluntary compliance audits and enter into corporate-wide audit agreements; and
- ③ Conducting inspections and issuing enforcement actions as appropriate.

Region 2 has signed 39 audit agreements covering all major federal environmental programs, including air, water, pesticides, solid and hazardous wastes, emergency planning, Community Right-to-Know and toxic substances control. The initiative encourages voluntary self-disclosures with or without signing an audit agreement. To date, the Region has received 135 voluntary self-disclosures covering 528 separate facilities (including some satellite facilities), 94 of these disclosures have been resolved by correcting more than 1700 violations, and more than \$18 million in penalties have been waived.

Fifty-eight inspections have occurred at healthcare facilities, which resulted in 39 enforcement actions – 14 of them penalty complaints. The average complaint is for approximately \$110,000 and the average amount of penalty waived for voluntary disclosures is about \$200,000. This indicates that the violations being discovered, either voluntarily or through EPA inspections, are significant. The voluntary self-disclosures have resulted in significant human health protection at a lower cost. Respondents to a Region 2 survey reported that their average cost for an audit was \$10,000 and their average cost of compliance was \$30,000. More than 150,000 staff and over 20 million hospital visitors annually are now better protected because of this initiative. These self-disclosures have also yielded significant protection of the environment. More than 1 million gallons of oil, more than 200,000 pounds of hazardous wastes and more than 150,000 pounds of CFCs are now being managed properly, and mercury use has been reduced by 96,000 pounds.

Analysis of the violations occurring at healthcare facilities showed that 69% of all hospital violations were related to hazardous wastes, particularly the identification and management of those wastes on-site. As a result, Region 2 developed a workshop on identifying and managing healthcare wastes. They have presented this workshop more than 20 times, training more than 1,000 hospital staff. This training has also been provided to other CA providers. Dozens of CA tools requested by the regulated community were also developed as part of this initiative (e.g., common healthcare listed wastes, regulated chemotherapy wastes, waste identification flow charts, etc.) Over 10,000 copies of these tools have been distributed nationally. (Contact: Linda Longo, longo.linda@epa.gov, 212-637-3565.)

Top Five Money Saving Activities at Region 2 Healthcare Facilities

\$-Install high-efficiency motors, up-grade light fixtures, and install new electronic ballasts

\$-Implement regulated medical waste management and segregation program

\$-Implement chemical, electronics, battery or hazardous waste recycling/exchange programs

\$-Initiate pharmaceuticals management & reverse distribution program

\$-Change to reusable sharps containers

Source: Region 2 Healthcare Facility survey, 2005.

Region 2: Veterans' Affairs Conducting Environmental Audits on All Its NY/NJ Healthcare Facilities

The U.S. Department of Veterans Affairs (VA) is conducting comprehensive environmental compliance audits of all of its 16 hospitals and associated clinics in New York and New Jersey in 2005 and 2006, as a result of an agreement between the EPA and the VA. These hospitals provide services to more than a half million veterans in New York alone.

This effort is part of EPA's Healthcare Compliance Initiative. EPA established the self-audit program because many healthcare facilities were either not aware of their responsibilities under various environmental laws or had failed to implement effective compliance strategies. In this program, facilities perform self-audits, report any violations to EPA and take action to correct them. In return, EPA provides some relief from monetary penalties.

The VA will conduct comprehensive environmental audits of its healthcare facilities in Buffalo, Batavia, Bath, Rome, Syracuse, St. Albans, Montrose and Castle Point, as well as 29 community-based clinics throughout the region. Also covered under the agreement are VA hospitals in New York City. In New Jersey, facilities in Brick, Lyons and East Orange will also be audited. The VA has completed its review of hospitals in Albany, the Bronx, Canandaigua and Northport and has submitted disclosure reports to EPA. The vast majority (89%) of the violations disclosed were for hazardous waste subject to RCRA. The balance of the violations was under the Clean Air Act and the Spill Prevention, Control and Countermeasure program. All violations have since been corrected.

The EPA audit agreements cover all major federal environmental programs including air, water, pesticides, underground storage tanks, solid and hazardous wastes, hazardous substances and chemicals, environmental response, emergency planning, community right-to-know requirements and toxic substances control.

EPA Region 2 also contacted all the hospitals in its jurisdiction and provided free workshops and an informational web site to alert them to their environmental duties under the law. See <http://www.epa.gov/Region2/healthcare/ca.htm>. (Contact: Kathleen Malone, malone.kathleen@epa.gov, 212-637-4083.)

Region 1: EPA New England Healthcare Assistance Program

Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) has been working with New England hospitals since 1998. The initial focus of the Region's efforts was to reduce mercury. Since then, the focus has expanded to help hospitals and other healthcare

facilities: 1) reduce the environmental impacts of their operations; 2) improve their understanding of and compliance with environmental regulations and 3) realize the cost savings and environmental benefits that can be attained through improvements in recycling, energy efficiency and water conservation. Some tools that have resulted from this Regional initiative include:

►**Environmental Assessment Template:** This tool was developed through an EPA grant to the University of New Hampshire to help federal and state agencies collect information from hospitals on environmental performance indicators, waste generation, pollution prevention and energy/water conservation. The information collected from 25 hospitals in three states was used to evaluate hospital mercury programs, to identify sector-wide environmental, health and safety challenges, to develop CA tools, and to further define the need for assistance activities for the sector. It is also valuable for hospitals to use to assess their environmental performance. The Federal template was modified into three state specific tools for Connecticut, Rhode Island and New Hampshire. A copy of the 2004 Federal Template is available at

www.epa.gov/region1/healthcare/pdfs/EPAHospitalTool.pdf

►**Electronic Newsletter:** Region 1 sends a bi-weekly electronic newsletter to about 1,000 contacts including 170 New England hospitals. Topics of interest for hospitals include Energy Star, H2E, new resources/tools, recycling tips, case studies, regulatory changes, press releases and upcoming events. This is a great tool for regular and timely communication with our target audience.

►**Data Management Tool To Measure Results:** Setting and achieving measurable goals for the healthcare sector has been a challenge because it is difficult to obtain data and other information on hospitals' environmental performance prior to and following assistance activities without placing an undue reporting burden on the

hospital. Region 1 has been working to increase the number of H2E Partner hospitals that report their environmental progress. Region 1 worked with H2E in January 2006 to pilot a data collection tool with 6 partner facilities in New Hampshire. A hands-on workshop provided by H2E helped hospital staff learn how to use the tool. Each hospital was asked to bring their waste data—manifests, tipping fees, etc. to the workshop. Hospitals left the workshop with both an understanding of the new tool and a useable baseline to track and report future progress. After the hospital inputs basic data, the tool automatically calculates summary fields. With a better understanding of their waste streams, a hospital can prioritize their actions for improvements and report results to their own management as well as H2E. Vermont and Rhode Island held similar hands-on workshops. This tool is still in the pilot phase and may be integrated into a web based tool. (Contact: Janet Bowen, Bowen.Janet@epa.gov, 617-918-1795.)

California Develops Medical Waste Posters and Stickers

The California Integrated Waste Management Board (CIWMB), under a grant from EPA Region 9, has developed colorful posters and stickers to help coordinate and promote waste reduction efforts. The 11 x 14 inch poster and 4 x 5 inch sticker make it clear what should and should not go in the red bag. For safety's sake,



staff often put things in the red bag that they do not need to, which can significantly increase facility disposal costs and can have negative environmental health implications. These posters and stickers are available to California businesses,

governmental agencies, public service organizations, and educational institutions at no

charge. If you are not in California, you can download and edit the posters and stickers to accurately depict the regulatory requirements in your area.

You are encouraged to reproduce and distribute the “Know Where to Throw” poster and sticker to help promote waste reduction, recycling, and safe disposal. The digital files may be used, resized, redesigned and reprinted by anyone for a nonprofit purpose without permission. (Source: <http://www.ciwmb.ca.gov/bizwaste/posters/redbag.htm>.)

FREE CD-ROM WITH INNOVATIVE HEALTHCARE TOOLS & RESOURCES

Region 2 has volunteered to make the information resources featured in this newsletter available on CD-ROM in 2006. (Contact Linda Longo, 212-637-3565, longo.linda@epa.gov.)

Maine Hospital Cooperative Treats Biomedical Waste

The Maine Hospital Association has established a statewide collaborative effort to treat biomedical waste and render it harmless so that it can be disposed at a local municipal landfill. 33 of the State’s 39 hospitals are sending their waste to a designated facility, and the remaining 6 hospitals are expected to join the collaboration this year once their present disposal contracts expire.

The biomedical waste is shipped to Maine’s designated waste facility in color-coded reusable bins, where waste from the 38 gallon bins is dumped into autoclaves the size of commercial washing machines. Pressurized steam is pumped into the autoclaves and a 250 degree process treats the waste and renders it non-infectious in 25 minutes. The waste is then removed from the autoclaves and sent via a conveyor to a shredding

machine. After shredding, the waste is trucked to a local landfill. The plastic bins in which the waste arrived at the plant are washed, sterilized, and dried, then sent back to the hospitals for reuse.

The environment benefits because dioxins that would be produced by incineration, an alternative disposal method, are not released. The hospitals benefit because this disposal method is expected to save \$300,000 annually and gives the facilities more control over the process.

The facility can process more than 5 million pounds of biomedical waste each year and is currently operating at about half that capacity. The Maine Hospital Association may seek to treat waste from laboratories, doctors’ offices, veterinary clinics, dentists’ offices and nursing homes in the future. They are planning a program to reuse and recycle plastic containers used to dispose of needles and other sharps.

A small percentage of pathological waste must still be sent out of state for incineration. (Source: *Healthcare Without Harm* web site, <http://www.noharm.org/details.cfm?type=news&id=159>.)

EXPLORE THE NATIONAL ENVIRONMENTAL COMPLIANCE ASSISTANCE CLEARINGHOUSE

The Clearinghouse links to comprehensive environmental compliance assistance materials and users can interact with each other. See www.epa.gov/clearinghouse.

To see planned Healthcare and other compliance assistance activities, select “Planned and Ongoing Activities” and browse by “EPA Region,” “Environmental Statute,” or “Target Sector.”

Common Violations Identified at Region 2 Healthcare Facilities



Lab hood with improper chemical storage. EPA Region 2 photo

Hazardous Waste

- ⇒ Improper or lack of labeling.
- ⇒ No or improper weekly inspections of storage and satellite areas.
- ⇒ Open containers of waste.
- ⇒ Improper disposal of chemotherapy drugs.
- ⇒ Failure to perform or improper determinations.
- ⇒ No or inadequate manifests.
- ⇒ Improper management of mercury-containing wastes, expired pharmaceuticals, paints, other wastes.
- ⇒ Lack of a contingency plan.
- ⇒ Lack of or inadequate training of employees in waste management.
- ⇒ Failure to upgrade or close underground storage tanks by statutory deadline.
- ⇒ Malfunctioning leak detection systems.
- ⇒ Improper consolidation of wastes from nearby facilities.

Air

- ⇒ Failure to use properly trained and accredited asbestos personnel.
- ⇒ Failure to notify EPA of asbestos removal projects and to keep required documentation and records.
- ⇒ Failure to properly dispose of asbestos debris.
- ⇒ Failure to close parts washer lids when not in use.
- ⇒ Failure to include spray paint booths and parts degreasers in air permit.

Water

- ⇒ No permit for or noncompliance with permit for wastewater discharges.
- ⇒ No or inadequate secondary containment for storage tanks.
- ⇒ Improper disposal down floor drains.
- ⇒ No Spill Prevention, Control and Countermeasure Plan.

Lead Paint (for rental housing)

- ⇒ Failure to notify residents of lead paint in building or lack of knowledge of any lead hazard.
- ⇒ Failure to provide EPA's pamphlet, "Protect Your Family from Lead in Your Home."



"Waste—everything" is improper labeling and an accident waiting to happen. EPA Region 2 photo.



A clearly marked, secure waste storage area in an out of the way location. EPA Region 2 photo.

Healthcare Compliance Assistance Tools

Creating a National
Movement for
Environmentally
Sustainable Health Care



Healthcare Environmental Resource Center

www.hercenter.org

This EPA-funded on-line CA center serves the healthcare industry—hospitals, ambulatory clinics and other specialized medical facilities. Developed in cooperation with The American Hospital Association (AHA), The American Nurses Association (ANA) and EPA’s H2E program, the Center serves as a first stop for environmental compliance information for the healthcare industry. It includes plain language explanations of applicable regulations and links to state and local permitting agencies where users can find information on local regulations and contacts.

Health Care Guide to Pollution Prevention Implementation through Environmental Management Systems

www.epa.gov/region02/ems/ or www.kppc.org

Kentucky’s Pollution Prevention Resource Center (KPPC) worked with EPA and hospital administrators from across the country to revise this guidance document. The Guide is written for EMS implementers and covers the following key areas:

- Strategies for getting started
- Components of an EMS
- Example healthcare environmental aspects
- Developing staff buy-in and participation
- Focusing on performance and results, setting goals and objectives
- Implementing and maintaining an EMS

The *Guide* provides examples of EMS procedures and forms used in four EMS certified hospitals, hospital case studies, compliance

resources, EMS and compliance auditing tools, and information on legal and other requirements.

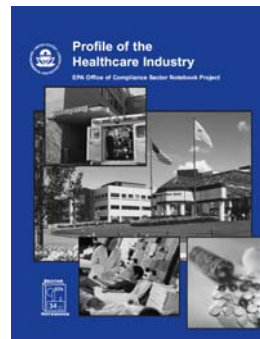


Profile of the Healthcare Industry

US EPA. *Office of Compliance Sector Notebook Project*, EPA/310-R-05-002, February, 2005.

<http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/index.html>

EPA’s Office of Compliance has prepared a *Profile of the Healthcare Industry*, which is a plain language environmental compliance profile covering the healthcare industry. The profile, or



sector notebook, is designed to give regulators, industry staff, and the public a general understanding of the major environmental issues associated with this industry and the organizations that are working to help improve

environmental performance among healthcare facilities. It includes chapters on industry background and trends, pollutant releases, applicable regulations, pollution prevention opportunities, compliance history, voluntary initiatives, and resources for additional research.

More Healthcare Compliance Assistance Tools and Resources

Identification and Management of Regulated Hazardous Waste - Workshop Materials Geared Toward Healthcare Facilities

EPA Region 2 developed a full-day interactive workshop for healthcare facilities on the identification and management of hazardous waste—the top compliance problem being found at healthcare facilities today. The workshop is no longer being offered, but electronic copies of the handouts are available. These materials cover drain disposal of wastes, empty containers, management of pharmaceutical and chemotherapy wastes, the household hazardous waste exemption, listed and characteristic hazardous wastes, the mixture rule, recycled wastes, universal wastes, satellite accumulation areas, bulb crushers, and incompatible wastes. Electronic copies of the handouts can be obtained by calling Diane Buxbaum at 212-637-3919. Also available soon at <http://www.epa.gov/region02/healthcare>



Hospitals for a Healthy Environment (H2E)

www.h2e-online.org

H2E is a voluntary program formed as a result of a partnership and agreement between the American Hospital Association and EPA. This agreement calls for: 1) virtually eliminating mercury-containing waste from healthcare facilities' waste streams by 2005; 2) reducing the overall volume of waste (regulated and non-regulated) by 33 percent by 2005 and by 50 percent by 2010; 3) identifying opportunities for preventing pollution from hazardous substances and reducing waste, including hazardous chemicals and PBTs.

H2E helps healthcare facilities enhance workplace safety, reduce waste and waste

disposal costs, and become better environmental stewards and neighbors through pollution prevention. H2E provides hospitals and healthcare systems with best practices, model plans for total waste management, resource directories, and case studies for minimizing the volumes of waste generated and the use of PBTs. This benefits the environment and communities, and reduces waste disposal costs incurred by the healthcare industry.



The H2E Program has grown since its inception in 1998. There

are now 1,112 Partner hospitals representing over 5,500 facilities and over 100 Champions representing some of the largest healthcare networks in the United States. Seventeen states have created state-level H2E programs that coordinate with the national program. Mercury emissions from medical waste incinerators have been reduced more than 99 percent compared to 1990 levels. For 2005 alone, the 73 H2E award winners:

- Reduced mercury use by 1.2 million grams;
- Recycled over 7,100 tons of waste;
- Reduced 488.8 tons of hazardous waste;
- Reduced 6,328 tons of non-hazardous waste;
- Saved 3,341 megawatts of electricity;
- Saved 9,878 gallons of water;
- Saved over \$500,000.

For more information on H2E and how you can participate, visit www.h2e-online.org or www.hercenter.org. The H2E program offers free monthly teleconference trainings on relevant topics for healthcare and environmental professionals. For dates and topics planned for 2006 and to register, go to <http://www.h2e-online.org/events/teleconf/index.cfm>. (Contact: Chen Wen, 202-564-8849, wen.chen@epa.gov.)

Health Care Without Harm



Health Care Without Harm is an international coalition of 443 organizations in 52 countries working to transform the health care industry. Its web site is packed with information about the

environmental and health hazards associated with materials and activities at healthcare facilities and ways that facilities can minimize the harmful effects of their operations. Topics include mercury, medical waste, healthy building, food, electronics, pesticides and fragrances, and green purchasing. Among the current features is *Going Green: A Resource Kit for Pollution Prevention in Health Care*, which is written specifically for a health care audience. This resource kit identifies steps that can measurably improve a facility's environmental performance. See <http://www.noharm.org/us>.



Green Environmental Management Systems (GEMS) Guidebook and Environment of Care Guidebook

US Department of Veteran's Affairs, Veteran's Health Administration, Center for Engineering and Occupational Safety and Health. Call 314-543-6700. Federal Executive Order 13148 "Greening the Government Through Leadership in Environmental Management" required each federal agency to implement an EMS by December 31, 2005. To help Veteran's Health Facilities meet this mandate and to integrate environmental accountability into healthcare practice, the GEMS Guidebook details a customized nine-step implementation process. The guidebook is a useful tool for other healthcare facilities developing an EMS.

The Veteran's Health Administration has also prepared the *Environment of Care Guidebook* to help Veteran's Health medical centers comply with the latest standards developed by JCAHO, the Commission on Accreditation of Rehabilitation Facilities (CARF), and College of American Pathology (CAP). The guidebook is a reference tool to direct users to available resources that will help them comply with the standards.

Upcoming Events

National Biennial Conference on "P2 for Health Care" April 18-20, 2006, Seattle, WA. CleanMed conference for environmental leaders in health care. <http://www.cleanmed.org/2006/home.html>.

2006 National Green Building Conference. March 12-14, 2006, Albuquerque, NM. National Association of Home Builders. 800-368-5242 x8338, www.nahb.org, registrar@nahb.com.

21st International Conference on Solid Waste. March 26-29, 2006, Philadelphia, PA Department of Civil Engineering, Widener University, solid.waste@widener.edu.

National Environmental Assistance Summit. May 8-11, 2006, Atlanta, Georgia. <http://www.EnvironmentalSummit.org>.

Hot News



The National Environmental Partnership Summit



Experience Atlanta and join your colleagues at the National Environmental Assistance Summit **May 8-11, 2006**. The Summit is a merger of the National Pollution Prevention Roundtable (NPPR) Spring Conference, the National Compliance Assistance Providers Forum, and the Performance Track Participants Association annual meeting.

Three EPA Offices – Compliance, Pollution Prevention and Toxics, and the National Center for Environmental Innovation –along with NPPR are working together to bring environmental assistance providers and industry representatives together to learn to provide more effective assistance to improve environmental performance.

The 2006 Summit will focus on “environmental stewardship,” bringing together over 600 regulatory agencies, environmental assistance providers, industry leaders, and non-governmental organizations to network and share ideas. The Summit will include sessions on sustainability, energy, pollution prevention, the performance track program, EMSs, performance measurement, CA, and partnerships, as well as site visits, field trips, specialized training, and social activities. There will also be a celebration of the 10th anniversary of the Compliance Assistance Centers program with a colloquium on the future of the Centers program. Learn more and register at www.EnvironmentalSummit.org. (Contact: Joanne Berman at 202-564-7064 or Tracy Back, 202-564-7076).

Join EPA’s Compliance Assistance Dialogue on the Gold and Copper Mining & Processing Industries

EPA is inviting all interested parties to join an informal dialogue on CA efforts for the gold and copper mining and processing industries. In January 2004, the Office of Enforcement and Compliance Assurance (OECA) worked with EPA regions and other program offices to propose a list of potential priorities in the Federal Register, then selected the mineral processing and mining industry as one of its six national priorities for FY05 to FY07. Currently, the Office of Compliance in OECA is leading an effort to identify ways to assist the gold and copper mining and processing sectors with environmental compliance. We invite those with an interest in these industries, who may represent the trade associations, states, universities, non-governmental organizations or other companies, to join us in a set of informal teleconference meetings to help us identify the best CA approaches.

Through these informal teleconferences, EPA wants to achieve four objectives: 1) Discuss environmental issues encountered by regulators and the industries; 2) Collect CA materials currently available; 3) Determine if additional CA tools are needed; and 4) Gather information necessary to develop such tools. Because EPA is conducting inspections at many mineral processing facilities at this time, EPA will focus the dialogue only on CA, not issues related to any inspection and enforcement actions.

EPA held dialogues in November and December, 2005, each attended by about 40 people representing various interested groups. The next dialogue is expected to be held in March. Let us know (*Continued on next page*)

Hot News Cont...



if you are interested in participating. (Contact Emily Chow, 202-564-7071 or chow.emily@epa.gov.)

EPA Environmental Assistance Network Expanding to the Regions

The EPA Headquarters offices that are mutually accountable for demonstrating results under Goal 5 of the Agency's strategic plan have joined to establish an Environmental Assistance Network (EAN). Initial EAN participants include staff and management from OECA, the Office of Prevention, Pesticides, and Toxic Substances, the Office of Policy, Economics and Innovation, the American Indian Environmental Office, and the Office of Research and Development.

EAN is a vehicle for better planning, coordination, and measurement of EPA's environmental assistance efforts. Key EAN activities include: 1) developing a matrix of assistance projects underway or planned by the participating offices to identify collaborative opportunities; and 2) developing common measure(s) for use by all Goal 5 Offices.

In November 2005, the Regions were invited to become active participants in the national EAN and to develop or expand internal Regional networks to share environmental assistance results and progress. Regional CA, pollution prevention, and innovation coordinators and small business liaisons have been invited to participate. Regional participation in the EAN will help us all better understand and measure environmental assistance activities throughout EPA. Increased coordination of environmental assistance activities across the Agency should also help improve the effectiveness and results of our efforts. The EAN recently discussed collectively focusing on a sector or topic of mutual interest where we could choose an action that was especially relevant. The EAN is

currently considering collaborating on measuring the success of assistance in either the Healthcare or Construction sector. (Contact: Terry Grogan at 202.564.6317 or Tracy Back 202.564.7076)

HealthySEAT

Healthy School Environments Assessment Tool



EPA Makes Healthy School Environments Assessment Tool Available

The Healthy School Environments Assessment Tool (HealthySEAT Version.1.0) is available on EPA's website for download at <http://www.epa.gov/schools/healthyseat/>. HealthySEAT is a software tool that helps school districts evaluate and manage their school facilities for key environmental, safety and health issues.

EPA will hold a series of webcasts to demonstrate the capabilities and features HealthySEAT. The webcasts, like HealthySEAT, are free of charge. To sign up for a webcast, send an email with the date you would like to participate to TrimbleMC@cdm.com. CDM is a contractor to EPA supporting HealthySEAT. **A webcast is scheduled for Thursday, March 2, 2006, 1:30-3:00 EST.** Additional webcasts will be scheduled if demand warrants. (Contacts: Bob Axelrad, axelrad.bob@epa.gov, 202-343-9315 or Bill Jones, jones.bill@epa.gov, 213-244-1817.)

Draft Profile of Tribal Government Operations Issued for Review and Comment

EPA is distributing a draft version of its *Profile of Tribal Government Operations*, the latest of EPA's sector notebooks. The profile presents general information on many aspects of tribal government operations and provides tribes with key information needed to effectively understand environmental regulations. Comments can be sent until April 3, 2006. See <http://www.epa.gov/Compliance/resources/publications/assistance/sectors/notebooks/tribal.html>. (Contact: Jonathan Binder, 202-564-2516 or binder.jonathan@epa.gov.)

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Need help?



Call!



Compliance Assistance Coordinators' Annual Meeting

During the week of January 9, 2006, EPA's Compliance Assistance Coordinators (CACs) met to reflect on FY 2005 successes and challenges, and plan for FY 2006. Integration of compliance assistance into the enforcement and compliance assurance program has progressed since the CACs were established in February 2002. Recognizing that more needs to be done, the CACs focused on: 1) improving measurement data quality, reporting and analysis 2) enhancing CA activities to address EPA's 2005-2007 enforcement and compliance national priorities; and 3) identifying opportunities for the FY 2008-2111 national priorities.