Improving Environmental Compliance and Performance at Educational Facilities

The more than 119,000 schools and more than 4,000 colleges and universities Nationwide have the education of their 73,200,000 students as their primary mission. These students will be healthier, learn more, achieve more, and perform better if the buildings in which they are taught are safe and free of environmental problems.

Elementary and high schools (K-12) face special challenges because their students are still developing and are more vulnerable to many environmental contaminants. Concerns range from air quality, to water purity, to chemicals used in laboratories and for building maintenance. Children spend more time in schools than in any other location other than their homes. It is important that these school facilities provide healthy environments for children to learn and grow.

College and university campuses often are the site of a dizzying variety of activities. A campus may be rural or urban, and it often functions much like a self-contained town. Many campuses provide their student and faculty “residents” basic public services, operating their own drinking water distribution, wastewater, transportation fleet, and power generating facilities. Depending on the courses of instruction a college or university offers, a campus may store dangerous chemicals and chemical wastes, radioactive isotopes and nuclear wastes, or infectious agents and biomedical wastes. Agricultural programs store and apply fertilizers and pesticides, and may maintain concentrated animal feeding operations. University printing operations require the proper handling of inks, solvents, and presses. Rare is the campus that is not a perpetual construction site, with the erection of new buildings and the demolition or remodeling of existing buildings presenting (continued on page 2)
Improving Environmental Performance at Educational Facilities (cont. from page 1)

numerous opportunities to fall short of environmental standards. Simply maintaining vehicle fleets and campus buildings requires awareness and understanding of several different environmental statutes enacted to protect public health and the environment. And landscaping practices—if managed poorly—can have a detrimental effect on the environment.

Facility managers often are challenged by the wide range of environmental issues in their schools, limited budgets and authority, aging school buildings, and a lack of formal comprehensive training on these issues. Chemical and radiological hazards can be found at many schools and may have gone unnoticed for years. News stories frequently appear about students or staff who are at risk from these hazards. The US Environmental Protection Agency (EPA) and other agencies have been working to help schools address these problems. EPA has been leading many efforts to help schools reduce the hazards from chemicals. Illinois Emergency Management Agency recently started a program to help schools with radiological hazards and the US Department of Energy is also collecting radioactive waste.

Throughout this newsletter, you will find information on the environmental challenges facing educational facilities as well as information to help you comply with the legal requirements to protect students, staff, and the surrounding community. Many tools and innovative projects are available to help make school a place where great learning can occur, often at lower costs. Some of these tools are highlighted beginning on page 10 of this newsletter.

Common Environmental Compliance Issues
State and Federal environmental inspectors who visit educational facilities are finding that some types of environmental violations are common. Waste management, labeling, improper disposal are among top violations found in schools. This is illustrated by the findings from EPA Region 2’s recent initiative to address problems at colleges and universities (see box at right). Other environmental problems that may be found in schools include the presence of arsenic, lead, asbestos, and mercury. Information on these problems is presented below.

Common Violations Found at Colleges and Universities in EPA Region 2
63% - Hazardous waste management (generator requirements, container management practices, facility standards such as personnel training and contingency plans, failure to properly identify all hazardous wastes, misclassification of waste streams, and universal waste management, especially mishandling mercury-containing lamps and batteries)
28% - Clean Water Act (mostly spill prevention plan violations for oil storage tanks)
5% - Clean Air Act (mostly chlorofluorocarbons and asbestos)
2% - Emergency Planning and Community Right-to-Know (failure to maintain/communicate chemical inventories and maintain material safety data sheet records)
1% - Toxic Substances Control Act (lead paint disclosure in leased housing)
1% - Safe Drinking Water Act

Asbestos Must Be Managed
Asbestos is most commonly found in insulation and building materials such as floor and ceiling tile, cement asbestos pipe, corrugated paper pipe wrap, acoustical and decorative insulation, pipe and boiler insulation, window caulking, spray-applied fireproofing, and plaster walls in older schools. Asbestos has also been used in laboratory gloves, laboratory hoods, and chalkboards. The Asbestos Hazard Emergency Response Act (AHERA) of 1986 requires public school districts and non-profit private schools to inspect buildings for asbestos, develop plans to manage any asbestos found, and carry out these management plans in a timely fashion. Damaged asbestos-containing materials may be managed through repair; various containment methods; or, when loose fibers are present, removal. AHERA only applies to building materials. No regulations govern the purchase or use of certain asbestos-containing products, such as laboratory gloves, although EPA recommends using asbestos-free versions of these products. EPA’s The ABCs of Asbestos in Schools answers common questions about asbestos in schools and outlines the asbestos related responsibilities of school officials. See http://www.epa.gov/asbestos/pubs/abcsfinal.pdf.

(Continued on page 4.)
A Word from the Director...

This issue of the *Compliance Assistance (CA) COMPASS* focuses on the environmental issues associated with educational facilities and ways to manage their operations to both comply with environmental requirements and prevent or reduce impacts to human health and the environment. I am particularly proud to highlight the new EPA-sponsored Education Compliance Assistance Center now being developed by the National Association of College and University Business Officials (NACUBO). This new Center will provide useful environmental management, planning, pollution prevention, and regulatory information to those who are responsible for, and affected by, the environmental performance of a college or university.

The Education Center, which is the latest in a suite of on-line web-based CA Centers sponsored by EPA, can be accessed through the central Centers website ([http://www.assistancecenters.net](http://www.assistancecenters.net)) once it is launched in 2007. EPA Administrator Steve Johnson presented NACUBO representatives with a check to get the new Center started. “I’m excited to announce a grant that will help colleges and universities address their environmental challenges.”

There are a plethora of ongoing efforts to protect children’s health at K-12 schools and at colleges and universities. So much work is being done in these areas that it has been a challenge to fit key points about the best of this work in this newsletter.

In this issue, you will read about the success our regional offices in Boston and New York (Regions 1 and 2) have had in implementing their strategies that integrate CA, incentives, monitoring, and traditional enforcement approaches to achieve environmental compliance at schools, colleges and universities. EPA’s western regions, especially Regions 8, 9, and 10, have been leading EPA’s efforts with tribal schools. The combination of these efforts, along with CA tools like the new Education CA Center, is having a tremendous impact on improving environmental performance of educational facilities. In addition to improving facilities’ compliance status and learning environments in high-performance schools, environmental improvement projects can also be valuable learning tools in math and science for students at all grade levels.

We hope you find this newsletter informative and useful for sharing information among the many providers of CA. Our Spring edition of the *CA COMPASS* will focus on strategies and tools for effectively using compliance assistance in conjunction with incentives, monitoring, and enforcement.

We welcome your comments and look forward to receiving future stories from you. You can contact Catherine Tunis with your ideas and comments at (202) 564-0476 or by e-mail at tunis.catherine@epa.gov.

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

---

EPA Administrator Stephen Johnson presents check to NACUBO for the new Education CA Center. *EPA Photo*
Improving Environmental Performance at Educational Facilities (cont.)

Mercury is a Potent Neurotoxin
Mercury is a persistent bioaccumulative and potent neurotoxin, affecting the brain and the central nervous system. Pregnant women, women of childbearing age, and small children are at greatest risk. Exposure to high levels of mercury, such as inhalation of mercury vapor from a spill, is associated with damage to the brain, heart, kidneys, lungs, and immune system. Science classrooms and storerooms often contain elemental mercury or mercury compounds used as laboratory reagents. Science classes may use mercury thermometers, or other mercury-containing instruments such as manometers (pressure gauges). Nurses’ offices often contain mercury fever thermometers and sphygmomanometers (blood pressure measuring devices). All these items pose unnecessary risks of mercury spills because there are safe, non-mercury replacements for all of them.

Mercury is also used in many common items that are found in buildings, such as thermostats, flow meters, boiler controls, and electrical equipment. This equipment poses little risk of spill, but must be disposed of properly at the end of its life. Some latex paints (prior to 1992) and pesticides (prior to 1994) may also contain mercury. See http://www.epa.gov/mercury/schools.htm.

Mercury Spill?
Facilities can clean up mercury spills no greater than the amount contained in a single fever thermometer—follow proper instructions in “Mercury: Spills, Disposal and Site Cleanup” at http://epa.gov/mercury/disposal.htm#SPILLS. Larger spills must be cleaned up by professionals. A mercury spill more than two tablespoons must be reported to the National Response Center (800-424-8802).

Arsenic Could Be on Play Equipment
Arsenic is a toxic heavy metal used in wood preservatives and pesticides and can cause an increased risk of bladder and lung cancers, and other serious health effects. Children can be exposed to arsenic by playing on recreational equipment preserved with chromated copper arsenate (CCA). Arsenic-contaminated soil from playground areas containing CCA-treated wood also can be tracked into classrooms on shoes or clothing. Exposure to CCA-treated wood can be minimized if it is properly sealed and if children wash their hands thoroughly with soap and water immediately after outdoor play and avoid eating near CCA-treated wood. See http://www.epa.gov/oppad001/reregistration/cca/. Alternatives to CCA can be found at http://www.epa.gov/oppad001/reregistration/cca/index.htm#alternatives.

Lead Harms Children
In schools, lead is most commonly found in the paint, dust, soil, and water. Some schools may have lead in art and photography supplies, pottery glazes, and science lab materials. Lead can leach into drinking water from plumbing. Although lead can be ingested and absorbed through the skin, inhalation of lead-contaminated dust is considered the primary pathway of lead poisoning. Lead poisoning is most hazardous to young children because they absorb lead more easily, and, even if they do not eat paint chips or flakes, often ingest lead paint by normal hand-to-mouth activity. Low levels of lead can cause decreased intelligence, learning disabilities, and behavior problems. High levels of lead or extended exposures can impair brain and nervous system function. For more information on the dangers of lead in paint, dust, and soil and how to avoid them, see http://www.epa.gov/lead.

EPA’s Office of Ground Water and Drinking Water is introducing its new 3Ts (Training, Testing, Telling) for Reducing Lead in Drinking Water in Schools and Child Care Facilities voluntary program. Since children spend a large portion of their day in schools and child care facilities, it is important to ensure that the drinking water they receive in these facilities meets the national standard for lead. 3Ts provides school officials and child care providers with the tools they need to understand and address lead in drinking water in their facilities. A suite of new tools and guidance documents can help facilities implement their 3Ts program. See http://www.epa.gov/safewater/schools. For EPA’s guidance to manage the health risks of lead in schools and drinking water, see http://www.epa.gov/safewater/schools/pdfs/lead/toolkit_lead schools_guide_3ts_lead schools guide_3ts.pdf. For information on complying with the Lead and Copper rule for drinking water, see http://www.epa.gov/safewater/lcrmr/compliancehelp.html. There is no federal requirement to sample drinking water in schools served by a public water system.

CA Compass
Schools Can Help the Environment and Save Through Environmentally Preferable Purchasing

Environmentally Preferable Purchasing (EPP) encourages and assists facilities to purchase 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 education facilities meet environmental goals, improve safety for students and staff, reduce liabilities, and reduce disposal costs. EPA’s EPP website provides a wealth of information, tools, and guidance to help schools, colleges, and universities make wiser purchasing decisions. See http://www.epa.gov/oppt/epp/.

Energy Efficiency Saves Money

Cost savings from reduced energy use can be significant because the nation’s 17,450 K-12 school districts spend more than $5 billion annually on energy. Schools districts can typically improve their energy efficiency—and lower energy cost—by 10 to 30%. 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%. (Be sure to dispose of properly—these contain mercury! Call the RCRA hotline for requirements 1-800-424-9346.) LED exit signs use 87% less electricity than incandescent exit signs. The Gresham-Barlow School District in Oregon has decreased its overall energy use by 46% and saved a total of $4.3 million since 1998 by investing in building infrastructure, energy-efficient equipment, and energy management software. For the school year 2004/2005, the District avoided utility costs of $1.1 million, with last year’s savings equivalent to salaries for over 20 teaching positions. Colorado Springs School District invested in preventive maintenance, holiday shutdowns, a Lights Out Campaign to raise awareness, and adjustments to make buildings operate optimally, and saved almost $4 million, including more than $750,000 in 2004 alone. The 2004 savings are equivalent to the salaries of 27 additional teachers. See page 12 for more tools to help your schools save energy.

Drive a Clean School Bus

EPA’s Clean School Bus program is working to reduce the health problems caused by children’s exposure to diesel exhaust from school buses. The initiative seeks to reduce bus idling, retrofit buses to reduce emissions, and replace older buses with cleaner new buses. Free materials for a voluntary idling reduction program are available. See http://www.epa.gov/cleanschoolbus/. Contact: cleanschoolbususa@epa.gov, 734-214-4780.

Supplemental Environmental Projects Can Also Help Schools

When EPA finds that a facility has violated an environmental requirement, EPA can take enforcement action to force the facility to comply with the law and also pay a penalty. Often enforcement actions are settled out of court. As part of a settlement, the facility can voluntarily agree to undertake a Supplemental Environmental Project (SEP) that enhances the public health and the environment and is related to the violation. In exchange, a violator may receive mitigation of a portion of the penalty. A SEP does not include the activities a violator must take to return to compliance with the law.

SEPs can be used to implement many environmental improvements at schools, including lead health screening and control, inventory and manage chemicals, provide chemical management training, install rain gardens, and provide clean energy (wind and solar).

Because SEPs are part of an enforcement settlement, they must meet certain legal requirements. See http://www.epa.gov/compliance/civil/seps/. Contacts: Melissa Raack, 202-564-7039, raack.melissa@epa.gov, or Beth Cavalier, 202-564-3271, cavalier.beth@epa.gov.
Improving Environments at Tribal Schools

EPA’s Office of Enforcement and Compliance Assurance (OECA) named tribal issues as a national priority for fiscal years 2005 through 2007 with a focus on tribal schools to improve environmental conditions at these schools. OECA and the regional offices are working with the tribes on compliance monitoring, compliance assistance, and enforcement activities to improve children’s health at schools operated by the US Bureau of Indian Affairs (BIA) as well as at other tribal schools.

EPA is conducting multimedia inspections and providing CA at tribal schools on asbestos, drinking water, lead-based paint, pesticides, and storage/disposal of spent laboratory chemicals. EPA is initially focusing on schools owned by BIA and plans to provide compliance assistance to 100% of BIA schools by September, 2007. Many regions have already provided significant compliance assistance. For example, EPA Region 8 has conducted CA and monitoring activities at BIA schools and is expanding its efforts into a few non-BIA schools. EPA Region 9 provided CA to all 89 BIA schools using a multimedia compliance and technical assistance document. To assess effectiveness of the CA they provided, they conducted a survey of the schools and found improved understanding of environmental regulations at the schools. EPA Region 10 recently sent CA materials to all BIA schools. It is now distributing information to 82 tribal school districts for schools located in Indian country or with enrollment of 25% or more American Indian or Alaskan Native students, representing approximately 290 tribal schools. The Region sent a notebook and CD-ROM of the CA materials. The information focused on regulatory requirements for asbestos, lead in paint and drinking water, pesticides, laboratory chemicals, and PCBs and voluntary programs on indoor air quality, mold, Healthy School Environments Assessment Tool (HealthySEAT, see page 10), Schools Chemical Cleanout Campaign (SC3, see pages 14-15), and Energy Star. Region 10 plans to follow up by phone to determine the effectiveness of the CA material. See the materials at http://yosemite.epa.gov/R10/TRIBAL.NSF/Programs/Tribal+Schools.

EPA will use the inspection results to plan further actions in Indian country. Initial inspections indicate a need for continued multi-media assistance. OECA and the Regions will analyze trends and significant noncompliance inside and outside of Indian country and evaluate long-term progress. EPA continues to communicate with tribes and tribal organizations about the National Tribal Priority. Contacts: Fran Jonesi, 202-564-7043; Jonathan Binder, 202-564-2516.

Professional Development Program for K-12 School Facility Managers

The Massachusetts Facilities Administrators Association, Inc. (MFAA) through a cooperative agreement with EPA Region 1, is developing and piloting a professional development program of nine integrated trainings on environmental, health, and safety responsibilities. This program may be institutionalized and delivered to school facility managers on an annual basis and could be replicated elsewhere. The training modules will be free for MFAA members and for a small fee to others (see http://massfacilities.org). MFAA plans to host train-the-trainer workshops and may do on-site training. Contacts: Joan Jouzaitis, 617-918-1846, Jouzaitis.Joan@epa.gov; Paul Anastasi, 617-559-9005, panastasi@newton.mec.edu.

K-12 Schools Electronic Newsletter

Region 1 started a K-12 Schools electronic email newsletter in early 2006, coincided with the release of the HealthySEAT software. Every few weeks, a short email newsletter is sent to about 200 contacts containing tools of interest, funding opportunities, upcoming trainings (via webcast or conferences), and other topics of interest. Contact Joan Jouzaitis, 617-918-1846, Jouzaitis.Joan@epa.gov.
SEP Supports Chemical Management/Removal
EPA Region 1 recently negotiated a SEP with Plymouth State University of New Hampshire (NH). In lieu of a proposed penalty for RCRA violations, Plymouth State agreed to provide comprehensive hazardous material/waste management training to NH secondary schools and services for up to twenty schools to safely dispose of unusable and/or dangerous chemicals. Contact: Bill Chin, 617-918-1728, chin.bill@epa.gov.

EPA Region 2’s College and University Compliance Initiative 1999 to 2006
In late 1999, EPA Region 2 began to focus on colleges and universities when it found that many such institutions were not aware of their responsibilities under various environmental laws, putting their staff and students at risk. For example, one university improperly stored two jars of crystallized picric acid that had to be removed and detonated by a bomb squad. In another, a rusting coffee can half-filled with mercury was near a microwave where students warmed food.

Region 2 addressed this sector through an integrated strategy consisting of compliance assistance, compliance incentives (voluntary audit/disclosure), compliance monitoring, enforcement, pollution prevention, and environmental management systems (EMS). A multi-media approach was necessary because violations were found under many statutory programs. So far, more than 1200 violations have been corrected. Ninety-three facilities undertook self-audits to find and disclose violations, many saying it was their moral responsibility to do so.

To date, Region 2 has conducted 59 inspections, issued 18 formal enforcement actions and assessed $3.8 million in penalties. The average cost of an audit and fixing problems found was much less than the average fine for violations found during an inspection. In many cases, SEPs were used to implement environmental improvements as part of a settlement in lieu of a fine. The SEPs, worth about $1 M, required the development of guidance manuals and workshops for K-12 schools because EPA had information that many of the violations that were found at colleges and universities also existed at K-12 schools. A multi-media environmental compliance and best management practices guidance manual and a guide for environmental health and safety in the arts for K-12 schools were developed and translated into Spanish. The guidance manuals will be beneficial to schools across the Nation and Region 2 will provide copies of the manuals as well as post them on the Internet. Ten environmental compliance workshops for K-12 school personnel are also being conducted during October-December, 2006.

Root Causes of Non-Compliance:
- Inadequate resources for staff, equipment, training;
- Limited or no environmental accountability;
- Limited authority of environmental officials;
- No clear compliance chain-of-command;
- Scattered, incomplete, and missing environmental compliance documentation;
- Incomplete institutional knowledge about requirements; and
- Broad use of hazardous materials when effective substitutes exist.

Region 2 College and University Compliance Initiative

Four goals were set for the Colleges and Universities Initiative: 1) Improve environmental compliance and safety at main and off-site campuses, including satellite buildings, laboratories, agricultural research stations, and associated offices and research facilities. 2) Change the culture to make environmental compliance a priority and part of normal operations.
and planning, not just a response to an actual or anticipated inspection. 3) Ensure compliance of the entire sector; not just inspected facilities. 4) Ensure continued compliance through permanent changes, such as waste minimization, pollution prevention, and adoption of environmental management systems.

The results of the Initiative have been significant: more than 58,125 lbs/year of hazardous waste, at least 716,388 gallons of oil, and at least 4,000 pounds of chlorofluorocarbons are now being managed properly, and at least 84 residential units are now in compliance with lead-based paint rules. See [http://www.epa.gov/region2/p2/college/](http://www.epa.gov/region2/p2/college/). Contact: Diane Buxbaum, 212-637-3919, buxbaum.diane@epa.gov.

EPA Region 2 is working with the Rochester City School District (RCSD) in New York on a variety of projects to improve the environment within the schools and reduce the impact of the schools on the surrounding environment. Region 2 provided a $70,000 grant; most will fund a three-year cooperative project between RCSD and the Rochester Institute of Technology to develop and implement an Environmental Management System for operations throughout the school district. Approximately $5,000 was used to characterize and dispose of over 1,300 gallons of legacy cleaning chemicals from a storage warehouse and remove several hundred gallons of excess chemicals from science laboratories and other school facilities. Science teachers are being educated about better management of lab chemicals inventories. Rochester is also testing a pilot project between EPA and the New York State Department of Environmental Conservation to identify and remove mercury from schools. Contact: Laura Livingston, 732-906-6998, livingston.laura@epa.gov.

Top Money Saving Environmental Activities for Colleges and Universities
- Manage/segregate regulated medical waste
- Upgrade surface spray painting operations
- Retrofit heating plant for summer shutdown
- Reduce on-hand chemical storage
- Consolidate photo processing operations
- Retrofit air handlers for variable speed
- Manage chemical inventory, avoid unneeded purchases
- Use laundry service to clean oily rags
- Install silver recovery system
- Install high-efficiency motors and light fixtures

Region 2 College and University Compliance Initiative

Reducing Lead in Drinking Water
EPA Region 3 investigated schools in Philadelphia after being contacted by a school principal. The principal’s school and quite a few others had been tested for lead in drinking water outlets and found to have elevated levels. The School District of Philadelphia entered into a consent agreement with the Philadelphia Department of Public Health (PDPH) to address lead in drinking water in almost 300 buildings. EPA provided technical assistance and regulatory interpretation as the district and health department implemented the agreement. Bottled water was provided to all schools while the water fountains and faucets were removed from service and
tested. The school district developed a sampling plan using EPA 1994 Guidance, “Lead in Drinking Water in Schools and Non-residential Buildings” (superseded as noted below). Results from the first round of sampling in the schools revealed that approximately 25% of water outlets had lead levels above the 1994 “action level.” (This level is now 15 parts/billion.) Data showed that the contamination was mostly coming from individual faucets, so outlets with low or undetected lead levels could be used.

The school district developed a schedule to tackle thousands of outlets for remediation, targeting schools where children were likely to have lead exposure from multiple sources. During remediation, the School District worked to ensure that only certified plumbing components were purchased and that plumbers understood the requirements of the Safe Drinking Water Act to install plumbing components that meet ANSI/NSF Standard 61, Section 9, which sets limits on the amount of contaminants, including lead and other metals, that can leach from plumbing components like faucets and valves.

The team provided input to EPA for the revision of the 1994 guidance, released as part of the “3T’s” program. (See www.epa.gov/safewater/lead.) EPA Region 3 is also participating in a review of the NSF standards to inform changes to the standards and improvements to plumbing components. Contact: Lisa Donahue, donahue.lisa@epa.gov.

EPA Region 4 CA Workshops
EPA Region 4 partnered with the Georgia Department of Environmental Protection, Georgia Department of Natural Resources, the Georgia University System of the Board of Regents, and Georgia State University to present several free Environmental Compliance Assistance Workshops for Georgia Colleges & Universities and K-12 schools districts. The workshop in September, 2006, had 64 participants representing twenty-three colleges/universities and ten K-12 school districts. Topics included hazardous waste management regulations and best practices, EPA’s proposed Lab Rule, chemical and biosafety in laboratories, indoor air quality including mold and mildew, PCBs, pesticides, pollution prevention, Environmental Management Systems (EMS), oil spills & SPCC plans, stormwater best practices & control measures, and air quality for stationary and mobile sources. This workshop built on previous sessions held in Georgia, South Carolina, Mississippi, North Carolina, and Florida. Workshop materials are expected to be posted online soon. Contact: Delane Anderson, 404-562-9681, Anderson.delane@epa.gov.

Bergen County, NJ School Chemical Cleanouts Cost Less with Contract Services
The Bergen County Utility Authority (BCUA) has been partnering with the Bergen County Department of Health Services for fifteen years on efforts to inspect high school laboratories, assist labs with identifying unknown chemicals, confirm that schools have safe laboratory practices, and confirm that waste is being handled and disposed of correctly.

BCUA recently established a contract that allows schools to use the same company for all services required to safely remove, pack, transport, recycle, incinerate, and/or dispose of all science chemicals and chemical wastes from participating schools. The contractor provides all labor, supervision, supplies, materials, incidentals, equipment and other items necessary to complete chemical cleanouts. BCUA pays the contractor and bills each participating school district. Twenty-three school districts have signed up to use these services. Two clean outs have been completed in high schools so far. One of the schools reported that their clean out cost half of what it would cost if they had to hire a vendor on their own. Contact: Mark Vangieri, 201-807-5823, mvangieri@buca.org.

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 2007 compliance assistance activities, select “Planned and Ongoing Activities” and browse by “EPA Region,” “Environmental Statute,” or “Target Sector.”
HealthySEAT
EPA’s HealthySEAT is a Big Success!
The HealthySEAT (Version 1.0) has been available for free since January, 2006 on EPA’s website at http://www.epa.gov/schools/healthyseat/ and has been very-well received across the Nation. HealthySEAT is a software tool that helps school districts evaluate and manage their school facilities for key environmental, safety, and health issues. It is designed to be customized and used by district-level staff to conduct completely voluntary self-assessments of their school and other facilities and to track and manage information on environmental conditions school by school. In addition to powerful software that can be used by districts to track any facility issues it chooses, EPA has also included critical elements of all of its regulatory and voluntary programs for schools, as well as web links to more detailed information.

Public, private, and tribal school systems can use this tool, if they wish, to establish and manage comprehensive school facility assessment programs. It promotes, but does not replace, any of the individual EPA programs for schools. In essence, HealthySEAT is a fully customizable tool for an environmental management system for schools. EPA invites schools to use HealthySEAT to promote local issues and programs and provide a more holistic and integrated approach to improving the health of children and staff in schools across the country. Many states and tribes, including California, New Hampshire (NH), and the Navajo Nation, have been holding workshops on the use of HealthySEAT and customizing the tool to include local policies and requirements. NH’s version of HealthySEAT is at http://www.des.state.nh.us/ARD/EHP/HSE. Let us know how you are using HealthySEAT!

HealthySEAT Version 2.0 Beta, coming soon, will include the ability to create and manage multiple sub-checklists and notification letters. HealthySEAT 2.0 can automatically incorporate any customizations you have added. Contacts: Bob Axelrad, axelrad.bob@epa.gov, 202-343-9315 or Bill Jones, jones.bill@epa.gov, 213-244-1817. NH contact: Rick Rumba, 603-271-1987, rrumba@des.state.nh.us.

Healthy School Environment Webcasts
To celebrate Children’s Environmental Health Month 2006, four one hour presentations—Safe and Healthy School Environments, Healthy High Performance Schools, Chemical Management in Schools, and Healthy SEAT—were recorded as webcasts and are available at http://epa.gov/schools.

Environmental Management Systems
Environmental Management Systems (EMSs) represent an opportunity for colleges and universities to systematically manage their environmental impacts and future goals. EPA’s Sector Strategies Division is working to deliver EMS outreach tools, training resources, and support to promote the development of EMS on college and university campuses. See http://CampusEMS.org/. EPA Region 1 will soon post it final College and University EMS guide at http://www.epa.gov/region1/assistance/univ. Also see http://www.epa.gov/ems for a broad array of information on EMSs and for resources and guides on how to implement an EMS.

Safer School Laboratories “Tool Kit”
EPA Region 8 developed this guidance on maintaining an inventory of chemicals; chemical purchasing, storage, and labeling; waste minimization and pollution prevention; laboratory ventilation and personal protective equipment; preventing spills; and other tools and resources. See http://www.epa.gov/region8/humanhealth/children/1PreventiveMeasuresToolKit.pdf.

Chemical Use and Management Guide
EPA’s Office of Pollution Prevention and Toxics is developing Chemical Management Resource Guide for School Administrators—a K-12 schools chemical use and management guide specifically for school administrators, principals, policy makers and other...
More Education Compliance Assistance Tools and Resources

non-technical audiences. It presents the principles and policy considerations for responsible chemical management in an easy-to-read reference document designed to help schools and school districts understand how to develop policy and implement best practices for safe use, management, purchasing and disposal of different types of chemicals. The guide contains model policies, sample management plans and links to a wealth of information resources and complements other EPA work found on EPA’s schools web portal. It is expected to be at http://www.epa.gov/schools by the end of 2006. Contact: Clarence Lewis, 202-566-1243, lewis.clarence@epa.gov.

Laboratory Chemical Safety Manual
This joint CPSC/NIOSH Manual offers teachers and school officials’ guidance on safe chemical management and laboratory practices and is expected soon. It contains many useful checklists and resources. Contact: Scott Wolfson, 301-504-7051, swolfson@cpsc.gov.

Region 5 Environmental Training
Region 5 has developed a comprehensive training course on school and children’s health issues for EPA staff (and others). The training presents problems that may be found in schools and tools and resources available to address them. Topics include: unique aspects of schools, basics of children’s health, overview of EPA programs—integrated pest management, lead, asbestos, environmental education, recycling, pollution prevention, waste minimization, energy conservation, safe chemical management, and HealthySEAT—and strategies for working with schools. See http://www.epa.gov/region5/air/radon/index.html (scroll to bottom of page). Contact: Maryann Suero, 312-886-9077, suero.maryann@epa.gov.

Make A Difference in Resource Use!
EPA’s Office of Solid waste has developed Make a Difference in Your School – A How-to Guide for Engaging Students in Resource Conservation and Waste Reduction. This guide provides advice and ideas for planning a hands-on environmental day. Many ideas in the guide come from actual events that were supported by EPA. Activities teach students about reducing waste, reusing materials, recycling, composting, and conserving natural resources. “Make a Difference Day” can focus on topics such as water quality, biodiversity, or ecosystems to foster an appreciation for the environment and life-long environmental stewardship. Order the guide (EPA-530-K-06-003) at www.epa.gov/epaoswer/osw/pub-p, or download from http://www.epa.gov/epaoswer/education/pdfs/mad-guide.pdf. Also see http://www.epa.gov/epaoswer/education/mad.htm. Contact: Judy Kane, 703-308-7893, kane.judith@epa.gov.

Mercury—Teaching, Learning, Knowing
The Illinois Department of Public Health has developed a website--Teaching, Learning, Knowing the Facts about Mercury--focused on mercury to educate students, teachers, and parents about the dangers of exposure to mercury vapor. The web site includes a downloadable curriculum, interactive quiz, information on health effects of mercury, how to clean up a small mercury spill, how to properly dispose of elemental mercury, and games about mercury for younger children. See http://www.idph.state.il.us/mercury/. Contact: Jennifer Davis, 217-785-3239.

Dogs To Sniff Out Mercury
Currently, there are only 3 dogs in the world trained to detect mercury. One is Clancy, a black Labrador retriever who works with the Minnesota Pollution Control Agency. Clancy and his handler have educated over 20,000 students, assessed over 200 schools, and successfully removed 1.1 tons of mercury from Minnesota schools since 2001. EPA Region 7 is planning to implement a similar Mercury Canine Program in 2007 that will train dogs to detect mercury in schools. The goals of the Mercury Canine Program will be to: 1) reduce the risk of mercury exposure to students and staff; 2) prevent releases of mercury by eliminating mercury from schools; 3) educate students and staff about the dangers of
mercury; and 4) reduce the cost of mercury cleanups through more precise detection on a mercury response. Contact: Dr. Eliodora Chamberlain, 913-551-7945, chamberlain.eliodora@epa.gov.

Track Campus Environmental Performance
The College and University Self-Tracking Tool allows colleges and universities to collect and analyze data on their campus' environmental impacts. With four years of data on energy use, hazardous waste, solid waste/recycling, and water consumption, schools can use the tool to identify and analyze trends in their data in an easy-to-use format and benchmark their environmental indicators against aggregated data from other schools of similar size and type. School names are kept confidential. All colleges and universities are invited to input data and suggest improvements of the tool. See http://www.c2e2.org/cgi-admin/navigate.cgi. Contact: Peggy Bagnoli, 202-566-2957, bagnoli.peggy@epa.gov.

ENERGY STAR Helps Schools Save Energy

Breathe! Indoor Air Quality in Schools
EPA’s Indoor Air Quality Tools for Schools Program (IAQ TfS) has been supporting schools for over a decade to reduce exposures to indoor environmental contaminants in 40% of America’s schools by 2012 through voluntary adoption of sound IAQ management practices. In 2006, EPA’s Indoor Air Program recruited 1,200 schools across the Nation to implement effective indoor air quality (IAQ) management practices, reducing the exposure to indoor pollutants and improving the school indoor environment and health of approximately 630,000 students, faculty, and staff. Key elements of IAQ TfS include outreach and education, an annual training symposium, technical tool development, and awards and recognition. The core of the Program is the IAQ TfS Tool Kit. The Kit comprehensively assembles best practices, industry guidelines, and practical management actions in a flexible format designed to help school personnel identify, solve, and prevent IAQ problems. EPA recognizes IAQ management success stories through its multi-tiered Awards program. For more information and to download components of the Kit, see http://www.epa.gov/iaq/schools. Contact: Jennifer Lemon, 202-343-9608, lemon.jennifer@epa.gov.

Green Chemical Alternative Wizard
The Massachusetts Institute of Technology has developed a web-based tool to reduce hazardous wastes generation and potential workplace exposures—the Green Chemical Alternatives Wizard. See http://web.mit.edu/environment/academic/purchasing.html. Click on the icon with the flask/leaf or hyperlinked text in the first paragraph to open the Wizard. You can then search for greener alternatives by chemical or chemical process and the Wizard will provide a description with pros and cons of each alternative. Contact: greenchem@mit.edu.
SunWise at a Glance
EPA’s SunWise Program helps teach children and caregivers how to avoid skin cancer due to overexposure to the sun. Activities raise awareness of stratospheric ozone depletion, UV radiation, and sun safety practices. Registered schools receive a free SunWise Tool Kit with standards based, cross-curricular classroom activities for grades K-8; a UV sensitive frisbee for experiments; story and activity books; poster; video; policy guidance, and more. Students can report actual UV measurements to http://www.epa.gov/sunwise, where the UV index is also available, searchable by ZIP code. UV Alerts by email are available. Contact: sunwise@epa.gov.

Illinois Healthy Schools Web Tool
The Illinois Department of Public Health has developed a website on indoor environmental quality, safe chemical storage, and other environmental health topics that affect schools. Take a virtual Schoolhouse Tour and learn about environmental health in school buildings. You will find a school health quiz, checklists to evaluate your school's environment, resources and publications, and contact information. The site was funded by EPA Region 5. See http://app.idph.state.il.us/envhealth/healthyschools/. Contact: Aaron Martin or Ken Runkle, 217-782-5830, DPH.MailHS@illinois.gov.

Advancing Sustainability for Colleges and Universities
The Association for the Advancement of Sustainability in Higher Education (AASHE) is a membership-based association working to advance sustainability for colleges and universities. The AASHE website offers resources to help you promote sustainability on your campus and in academic programs. It also offers news, information on meetings and conferences, an awards program, and a weekly newsletter. See http://www.aashe.org/. Contact: info@aashe.org.

Green Landscaping is Clean, Saves Green
School landscaping can be costly and has major impacts on the environment. You can reduce costs and save materials while landscaping (http://www.epa.gov/GreenScapes/). You can landscape in a manner that saves water (http://www.epa.gov/watersense/docs/water-efficient_landscaping_508.pdf), landscape with native plants (http://www.epa.gov/greenacres/), and reduce the impacts of stormwater with rain gardens that allow rain to soak into the ground (http://www.lowimpactdevelopment.org/school/index.html).

Upcoming Events


White House Summit on Schools. June, 2007, Washington, DC. Develop national strategy energy and other topics for high performing schools. Contact: Laura Helmke-Long, helmke.laura@epa.gov.


CA Compass
The National Environmental Partnership Summit 2007

The National Environmental Summit will be held May 7-10 in New Orleans. Environmental professionals and assistance providers from diverse sectors all over the country and the world will examine the mutual interdependency of local actions and global results, global trends and local responses. Be a part of this turning point for stewardship and sustainability. See www.EnvironmentalSummit.org for information and to register.

Contact: Beverly Updike, 202-564-7142, updike.beverly@epa.gov.

New Education Sector CA Center
On October 11, 2006, EPA Administrator Stephen Johnson announced EPA support for a new CA Center, noting that EPA is equipping campuses with the tools to create a cleaner, healthier learning environment. Small businesses, local governments and Federal facilities often need help understanding and meeting their environmental obligations. The EPA sponsored Compliance Assistance Centers (Centers) make information they need easy to find and use. EPA already sponsors 14 Compliance Assistance Centers—user-friendly, web-based one-stop shops, where small businesses, local governments and federal facilities can find comprehensive, easy-to-understand compliance information specific to their industry or government sector. Sometime in early 2007, a fifteenth Center will come on line, focusing on the environmental performance needs of colleges and universities. The Education Center, currently in development at the NACUBO, will provide environmental management, planning, pollution prevention, and regulatory information useful to those who are responsible for, and affected by, the environmental performance of a college or university. Providing comprehensive environmental compliance information to the education sector will be particularly challenging given the broad range of conditions and activities that occur on university campuses. The Education Center will help colleges and universities comply with requirements in areas such as lead paint, lead in drinking water, asbestos, pesticides, PCB’s, hazardous and solid waste, boiler emissions, fuel storage, concentrated animal feeding operations (at land grant universities), toxics in school laboratories, and more. “Over the next 5 years, EPA will provide up to $350,000 to support this new, innovative resource,” said Administrator Johnson.

When it comes on line, the Education Center will maintain Internet linkages and partnerships among various education groups/associations, EPA and other federal regulatory agencies, other relevant organizations, and the CA provider communities. The Center will provide the materials—including regulatory and pollution prevention information—that colleges and universities need to ensure compliance with the myriad environmental requirements that apply to their varied operations, and provide an effective pathway for the delivery of information, tools, and services to all interested users. Contact: Ken Harmon, 202-564-7049, harmon.kenneth@epa.gov.

The Schools Chemical Cleanout Campaign – Solutions for Healthy School Environments
Across the country, mismanaged chemicals in K-12 schools have resulted in preventable accidents, including spills and explosions that have put students and faculty at risk. These accidents are responsible for lost schools days due to building closures, and cleanup costs ranging from thousands to millions of dollars. By removing outdated, unknown and improperly stored chemicals and implementing appropriate chemical
management strategies, schools can improve their learning environments and provide healthier workplaces for faculty.

The Schools Chemical Cleanout Campaign (SC3) seeks to raise awareness of this issue and make chemical management tools available to schools all across the country. The multi-agency effort is building a national program with removal, prevention and awareness-raising as central tenets of the program. SC3 aims to establish a self-sustaining program with a network of local, industry and government partners able to ensure that every school has access to cleanout and prevention services.

The Environmental Protection Agency, Department of Education, Centers for Disease Control and Prevention, the Consumer Products Safety Commission, and other members of SC3 are reaching out to trade associations, teachers’ associations, chemical suppliers, and others to help address this environmental health and safety issue in K-12 schools. Current outreach efforts include brochures, booths at conferences across the country, and a website with resources for schools and communities.

For details on SC3 pilot programs, outreach and information tools, and how to participate, see http://www.epa.gov/sc3. Contact: Eileen Naples, 703-308-0216, naples.eileen@epa.gov.

NRC Assesses Benefits of Green Schools
To determine the health and productivity benefits of green schools, the Massachusetts Technology Collaborative, the Barr and Kendall Foundations, the Connecticut Clean Energy Fund, and the U.S. Green Building Council asked the National Research Council (NRC) to examine available studies about the effects of green schools on student learning and teacher productivity. An interim report, now available, presents an evaluation of relationships between health, learning, and productivity and five characteristics of green schools: the building envelope, ventilation, lighting, acoustics, and condition. The final report will present evaluations for additional characteristics. See http://fermat.nap.edu/catalog/11574.html.

LEED for Schools Coming Soon
The US Green Building Council’s (USGBC’s) Leadership in Energy and Environmental Design (LEED) guides are widely used to set green building performance standards. The new LEED for Schools Application Guide is expected soon. The USGBC newsletter reports, “LEED for Schools is a market-specific application that recognizes the unique nature of the design and construction of K-12 schools. The draft rating system is based on LEED for New Construction, and addresses issues such as classroom acoustics, master planning, mold prevention and more.” USGBC published a draft in August and the final guide is expected this winter. The application guide is expected to include a suite of tools tailored to schools, including a reference guide, workshop, and LEED Online templates. See http://www.usgbc.org/leed/leeddrafts/ratingsystemversions.aspx.

Strategies for Environmental Compliance
In January of 2007, EPA’s Office of Compliance will release the Guide to Addressing Environmental Problems through a Strategic Approach (Guide). This Guide captures, in one place, the critical elements for developing and implementing strategies to address environmental compliance problems. It includes illustrative examples and describes how to identify what problems to address with compliance assistance, monitoring and enforcement, set goals and measures of success, choose the right compliance tools, communicate, and monitor your success.

Contacts: Deborah Thomas, thomas.deborah@epa.gov, or Seth Heminway, heminway.seth@epa.gov.

CA Compass
Region 1 (CT, MA, ME, NH, RI, VT)
Larry Wells
(617) 918-1876
wells.larry@epa.gov
www.epa.gov/region01/compliance/assist/index.html

Region 2 (NJ, NY, PR, VI)
Linda Longo
212-637-3565
longo.linda@epa.gov
www.epa.gov/region02/capp

Region 3 (DC, DE, MD, PA, VA, WV)
Betty Barnes
215-814-3447
barnes.betty@epa.gov
www.epa.gov/reg3ecej/compasst.htm

Region 4 (AL, FL, GA, KY, MS, NC, SC, TN)
Wes Hardegree
404-562-9629
hardegree.wes@epa.gov
www.epa.gov/region4/ead/compliance/index.htm

Region 5 (IL, IN, MI, MN, OH, WI)
Eileen Deamer
312-886-1728
deamer.eileen@epa.gov
www.epa.gov/region5/enforcement/index.htm

Region 6 (AR, LA, NM, OK, TX)
Israel Anderson
214-665-3138
anderson.israel@epa.gov
www.epa.gov/earth1r6/en/ca/ca.htm

Region 7 (IA, KS, MO, NE)
Althea Moses
913-551-7649
moses.althea@epa.gov
www.epa.gov/region7/enforcement_compliance/index.htm

Region 8 (CO, MT, ND, SD, UT, WY)
Liz Rogers
303-312-6974
rogers.liz@epa.gov
www.epa.gov/region8/compliance/assistance.html

Region 9 (AZ, CA, HI, NV, American Samoa, Guam)
Angela Baranco
415-947-4262
baranco.angela@epa.gov
www.epa.gov/region9/

Region 10 (AK, ID, OR, WA)
Robyn Hoffman
206-553-7154
hoffman.robyn@epa.gov
www.epa.gov/region10/

Need help? Call!

This year, we’re celebrating the Centers’ ten year anniversary; ten years of targeted and productive assistance. Delivered by peer organizations of the regulated entities, important environmental information is reaching a broad audience of small businesses, local governments, and federal facilities that was unimaginable just a few years ago. EPA congratulates the Centers for their dedication to providing quality compliance assistance; without their talent and effort the Centers would not have thrived for 10 years and counting. Visit the Centers at http://www.assistancecenters.net.