FEATURE ARTICLE

Pollution Prevention for K-12 Schools

We are all concerned about the health and well being of our children, so it is therefore, critically important to ensure that we prevent any unnecessary environmental hazards in their school environments. State, local and federal environmental agencies in the Northeast have been working with K-12 schools to identify opportunities to eliminate or reduce hazardous materials, waste and indoor air pollution. The following articles provide a sampling of these activities in the region.

CONNECTICUT

As part of Commissioner Arthur J. Rocque's 2001 mercury collection initiative, a pilot program, funded using Supplemental Environmental Projects, succeeded in cleaning out mercury and chemicals from six schools in Connecticut during 2001. The program was well received, and there is currently a waiting list of schools interested in the program.

For 2002, an educational poster on “Exposing Mercury” has been printed and 15 copies are being mailed to all schools in the state. The poster is based on a tabletop exhibit created by the Office of Pollution Prevention to help educate the public on the effects of mercury exposure and how mercury moves through the environment.

Continued on page 2
THE NORTHEAST WASTE MANAGEMENT OFFICIALS’ ASSOCIATION (NEWMOA)

NEWMOA is a non-profit, non-partisan interstate governmental association. The membership is composed of state environmental agency directors of the pollution prevention, hazardous and solid waste, and waste site cleanup programs in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. NEWMOA's mission is to help states articulate, promote, and implement economically sound regional programs for the enhancement of environmental protection. The group fulfills this mission by providing a variety of support services that facilitate communications and cooperation among member states and between states and EPA.

NEWMOA’s P2 program was established in 1989 to enhance the capabilities of the state and local environmental officials in the northeast to implement effective source reduction programs. The program is called the Northeast States Pollution Prevention Roundtable (NE P2 Roundtable). This program involves the following components:

- NE P2 Roundtable meetings and workgroups
- Regional P2 information resource center and databases of information
- Source reduction research and publications
- Training sessions
- Regional policy coordination and development.

For more information contact:
Terri Goldberg, NEWMOA, (617) 367-8558 x302, tgoldberg@newmoa.org. Website - www.newmoa.org.

Pollution Prevention for K-12 Schools

Continued from page 1

An all-day conference on removing toxics from the school environment is scheduled for May 21st at Quinnipiac College in Hamden, CT. Partners sponsoring the conference include EPA Region 1-New England, CT DEP, CT Department of Health and CT OSHA. It will feature CT schools that have already conducted lab clean-outs, implemented Integrated Pest Management and other programs. Presenters from the University of Wisconsin will be discussing their mercury curricula with interactive classroom lessons. Resources available to schools to assist with clean-outs will also be covered.

For more information contact: Kim Trella, CT DEP, (860) 424-3234, kim.trella@po.state.ct.us.

MASSACHUSETTS

Serious chemical management issues have been identified in a majority of schools in Massachusetts, including: chemical stockpiles; unsafe chemical storage practices; the presence of aged, unstable (i.e., shock-sensitive), and extremely hazardous materials (i.e., hydrofluoric acid and mercuric chloride). School personnel are at risk from chemical exposure due to a lack of knowledge on the proper use, storage, and disposal of hazardous wastes.

To address this situation and attempt to prevent it from reoccurring in the future, the Massachusetts Office of Technical Assistance (MA OTA) sought business support to set up a pilot program that facilitates businesses to partner with local schools, as a mentor. From this partnership, businesses can build strong community ties by using their expertise to address serious chemical management issues and assist in school chemical clean-outs.

OTA received enthusiastic support from the Associated Industries of Massachusetts (AIM) and the Massachusetts Chemical Technology Alliance (MCTA). This group will help the state to start the development of a chemical management program in schools. With the Department of Environmental Protection’s involvement, additional opportunities to lower cost and expand capacity of school chemical clean-outs are also a focus of the study. The pilot will also include developing opportunities to incorporate green chemistry science programs as well as an OTA-led educational effort focused on chemical distributors that supply to schools.

For more information contact: Denise Zambrowski, MA OTA, (617)-626-1071, denise.zambrowski@state.ma.us.
Under a grant program, the Massachusetts Department of Environmental Protection (MA DEP) will be assisting nine high schools/middle schools in Massachusetts to develop programs to clean out existing hazardous chemicals and to reduce their use of toxic chemicals. There are four program goals:

- Encourage school officials to be aware of chemical hazards and to improve their school’s chemical management practices
- Reduce the quantity of hazardous chemicals stored in schools to a minimum necessary for quality instruction
- Establish a purchasing system that ensures the lowest possible risk to students and staff
- Establish a safe management system for remaining required chemicals

Each school will form an Environmental Health and Safety (EHS) Team comprised of the principal’s office, the Science, and Art Departments, the Janitorial staff and a designated fire prevention officer. The EHS team will attend a day-long training. The training will cover such topics as the scope of the chemical management problem, chemical inventories and clean-outs, development of a chemical purchasing policy, toxics use reduction options, best management practices, and regulations for safe chemical use.

With the financial assistance of the grant, each EHS team will hire a chemical assessment contractor to identify chemicals stored in school buildings, remove hazards, make recommendations for disposal and estimate the cost of clean-out. DEP will pay for the clean out.

Based on information and insights gathered in training and school assessment, the EHS team from each school will develop a chemical management program that best meets the school’s needs with the assistance of DEP.

**For more information contact:** Lori Segall, MA DEP, (617) 292-5704.

**NEW HAMPSHIRE**

In the spring of 2001, Joan Jouzaitis (EPA) and Karen Thomas (NEWMOA) regularly met with New Hampshire DES’ Pollution Prevention Program (NHPPP) staff to help establish an outreach program for educators that would raise their awareness about the issues relating to toxic materials commonly found throughout a school. At the same time, NHPPP included “Pollution Prevention in Schools” project activities as part of its fiscal year 2001 EPA Pollution Prevention Incentives for States (PPIS) grant proposal, and by the summer of 2001, had plans well underway to start the project with a day-long winter workshop for educators, school officials and municipal officials.

On December 11, 2001, NH DES, EPA and NEWMOA presented the *Getting Toxic Chemicals Out of New Hampshire Schools* workshop. Over 85 participants representing teachers, school administrators and local emergency response officials attended the workshop that offered both pollution prevention and compliance topics. These included toxic materials identification, chemical tracking software, case studies, chemical management systems, integrated pest management and mercury in school. In the months following the workshop, over half a dozen school participants called NHPPP to praise the workshop and to describe how they changed their chemical management practices by removing chemicals, instituting a chemical management system, changing purchasing habits or changing their chemical use in classrooms.

The next phase in the project was to visit several schools, create a chemical inventory and oversee actual removal of unwanted toxic chemicals. Two schools that attended the workshop requested NHPPP assistance in this area. Working with representatives from DES’s Special Investigations Section, detailed site visits were conducted at the two high schools on January 15, and February 5, 2002. One school, with over 500 students, exhibited a wide variety of hazardous waste issues ranging from improperly stored 55-gallon drums of waste chemicals to unlabeled bags of chemicals in a horticulture lab. On February 25, NHPPP staff returned to run hazardous waste determinations and create a detailed chemical disposal list that included 148 different chemicals, mostly in one pound or smaller containers.

**For information contact:** Paul Lockwood, NH DES, (603) 271-2956, plockwood@des.state.nh.us.
Pollution Prevention for K-12 Schools

Continued from page 3

VERMONT

The Vermont DEC sponsored and funded a school science laboratory chemical clean-out project in 1999 – 2000 for high schools and middle schools. The main objectives of this project were to:

• Dispose of the current chemicals that were outdated, extremely hazardous or present in excessive quantities.
• Reduce the amount of hazardous chemicals purchased, used and disposed of in school labs
• Encourage school science labs to remove all mercury/mercury compounds and mercury-containing equipment
• Educate science teachers on the proper handling storage and disposal of hazardous chemicals.

Schools were assisted with chemical inventorying (of mercury and other laboratory chemicals), chemical disposal (at no cost to the school), and establishing safe chemical storage systems. In addition to one-time lab chemical clean-outs, the program involved teacher training workshops on lab chemical management. Lab chemical management plans describing lab chemical purchase, use and disposal procedures were part of the training and required of all participating schools.

The lab clean-outs were completed at an average cost of $1,100 per school. These costs were kept to a minimum by using state agency staff and the municipal solid waste district staff for packaging and transporting waste off site as well as waste consolidation at a municipally-owned and operated hazardous waste depot.

Eighty-three middle schools and high schools were cleaned out (representing over 50 percent of Vermont’s student population). Removal of approximately 17,000 pounds of hazardous materials, 3,900 pounds of non-hazardous and 156 pounds of mercury was accomplished as a result of this project.

The project was highly successful and exceeded Vermont DEC’s initial goals for statewide school participation. The project was more than just a one-time clean-out of school science labs. The training workshops and the requirement for lab chemical management plans should ensure a more lasting effect on proper lab chemical management.

The project report will soon be available on VT DEC’s web site or can be obtained by contacting Tom Benoit (802) 241-3472, tombe@dec.anr.state.vt.us.

For more information contact: Gary Gulka, VT DEC, (802) 241-3626, GARYG@dec.anr.state.vt.us.

EPA REGION I-NEW ENGLAND

Staff in the assistance office at EPA Region 1-New England targeted efforts in 2001 on improving chemical management in schools, and reducing generation/use of toxic and hazardous chemicals. They have been working towards sustainable improvements in how chemicals are managed in schools, focusing on long-term infrastructure building (helping to establish/maintain multi-disciplinary schools networks in individual states), outreach to teachers and other school personnel, and working closely with EPA’s enforcement program to provide financial assistance to schools in the form of Supplemental Environmental Projects (SEPs).

In late 2001, EPA Region 1-New England settled an enforcement case with Brown University that greatly impacts high schools in Providence, RI. Four schools will receive assistance with review of their chemical inventories and funding for:

• “one time clean-outs” of their excess/unwanted chemicals,
• both the training and equipment needed to convert laboratories to micro-scale chemistry,
• purchasing/inventory tracking systems and training on pollution prevention and hazardous waste management.

By providing both technical and financial assistance to the schools, it is hoped that they will successfully change practices and will have long term improvements in the health and safety of the school environment.

In 2002, EPA’s Regional office is working on better coordination and integration of the programs that work with schools. The Region acknowledges that it may be difficult for a school to gain the information they need about environmental obligations they must meet, and to know how to prioritize amongst the various requirements and recommendations. Rather than continuing to have individual programs focus resources on regulatory issues (such as hazardous waste management, asbestos management,
air emissions, groundwater contamination), or environmental/health impacts (such as poor indoor air quality, consequences of poor choices in chemical management), EPA Region 1-New England believes it is necessary to develop an integrated pilot project for schools that broadly addresses environmental issues, using an environmental management system (EMS) – like approach.

The Region believes an EMS-like system would have as its foundation a list of performance indicators (based upon regulatory requirements, best management practices and pollution prevention), development of assistance tools, creation of some incentives for schools to participate, and a plan to measure how well schools are performing with respect to environmental issues. EPA Region 1-New England hopes to work closely with one or more state agencies in development of a pilot program, and is excited about the opportunity to develop a broader and more holistic approach to environmental management in schools.

**For more information contact:** Joan Jouzaitis, EPA Region 1-New England, (617) 918-1846.

**EPA REGION 2**

On March 23, 2002, Steve Brachman (University of Wisconsin-Extension, Solid & Hazardous Waste Education Center) and Steve Skavroneck (Pollution Prevention Partnership) led a workshop titled “Mercury In Your School and the Community” at the Science Council of New York City Annual Conference at South Shore High School in Brooklyn, NY. EPA Region 2 gave away mercury-free thermometers to the first 30 educators that signed up for the workshop. Educators were invited to bring their mercury thermometers to the workshop for proper disposal and recycling.

The Region’s participation in this workshop was made possible via funds provided from the EPA Headquarters Office of Pollution Prevention & Toxic Substances (OPPTS). EPA OPPTS provided funding to EPA Region 5 two years ago to support the development of a website and curriculum focused on mercury in schools. The module was developed and piloted in the mid-west via an EPA Region 5 grant to the University of Wisconsin Cooperative Extension in partnership with the Wisconsin Department of Natural Resources and the Pollution Prevention Partnership. Module topics include: the basics of mercury, how it is released to the environment from human activities (including ritualistic uses), health issues and unique properties of mercury. Activities include case studies of mercury contamination; mercury sources, mercury audits in school, at home, and in the community; mercury in fish; and community action projects.

EPA Region 2 formed an ad hoc cross-divisional mercury team for the purpose of tailoring the module and activities to the needs and issues within New York and New Jersey. The goal of this long-term regional effort is to eliminate the use of mercury and mercury containing products in schools. Team members will incorporate the module into on-going EPA program, such as Tools-for-Schools, asthma and asbestos outreach and other mercury outreach initiatives. The team is already working to pilot the module at other regional events and will utilize existing partnerships to leverage outreach and networking opportunities.

**For more information contact:** Marcia Seidner, EPA Region 2, (212) 637-3584, seidner.marcia@epa.gov.

**NEWMOA**

NEWMOA is working on pollution prevention issues with New Hampshire and Maine high schools with a grant from EPA Region 1-New England. In December, NEWMOA and NH DES organized the workshop “Getting Toxic Chemicals Out of New Hampshire Schools” (see description in the New Hampshire section). NEWMOA is assisting with the planning of a similar workshop to be held in Maine in May, which is being planned by ME DEP and EPA Region 1-New England.

Following these workshops, NEWMOA, NH DES and ME DEP will work with six schools to perform chemical clean outs and establish purchasing policies to avoid the purchase of toxic and hazardous materials in the future. The six schools will receive matching grants of up to $1,000 each to be used for the clean outs.

NEWMOA is continuing to work with MA schools on mercury clean outs under a MA DEP contract. The cost of the clean out of all mercury materials and replacement products is provided if the school agrees to implement a purchasing policy to avoid the future purchase of mercury devices and ensure the recycling of mercury-containing bulbs.

**For more information contact:** Karen Thomas, NEWMOA, (617) 367-8558 x304, kthomas@newmoa.org.
Maine Department of Environmental Management (ME DEP)

Current activities of the Pollution Prevention Program in Maine DEP’s Office of Innovation and Assistance include:

- Establishing P2 priorities for the agency through internal surveys, meetings and review of findings from the senior management team, and the Commissioner.
- Working closely with the Maine Hospital Association to secure another year of funding in their efforts to “virtually eliminate” mercury from their waste streams as well as analyze other waste stream and reduction opportunities.
- Developing a final P2 plan with the Maine Dental Association regarding waste amalgam issues.
- Continuing to provide assistance to the Green Campus Consortium in their efforts to move towards sustainability.
- Reviewing the state procurement system to identify P2 opportunities as part of the Clean Government initiative and the law that established the Office of Pollution Prevention.
- Continue to provide assistance to a number of industry sectors.

Completed activities:

- Contracted for EMS training with the Boat Building and Repairing P2 Initiative.
- Revitalized the Compliance Advisory Panel (CAP) as an effective tool to weigh in on Office of Innovation and Assistance (OIA) activities.

For more information contact: Peter Cooke, ME DEP, (207) 287-7100, peter.cooke@state.me.us.

Massachusetts Office of Technical Assistance (MA OTA)

Environmental Insurance Incentives

The Massachusetts Environmental Insurance Incentives Program was created from an agreement between OTA and four leading environmental insurance companies. This voluntary program is aimed at rewarding Massachusetts Toxics Use Reduction Act (TURA) filers by linking sound environmental performance and management with tangible insurance policy benefits. This program is the first-of-its-kind in the nation for pairing the risk reduction potential of pollution prevention and comprehensive environmental management practices with real incentives from environmental insurers, such as premium discounts, only to TURA filers. After four months of training, OTA will soon be ready to kick-off this program.

Green Chemistry

In Massachusetts, the wire and cable industry is the major user of lead compounds. In an effort to help these industries reduce or eliminate lead, OTA is sponsoring research efforts at the University of Massachusetts Boston and Lowell, through the Strategic Envirotechnology Partnership (STEP). The agency is working with researchers to characterize the affects of lead used as stabilizers in the litharge process for the manufacture of plastic, wire and cable insulation. By using advanced surface analysis techniques, the researchers are focusing on the surface characteristics and moisture uptake of both lead-based wire coating compounds and their non-lead replacements. Once these attributes are better understood, it may aid in the identification of suitable alternatives to lead-based stabilizers and would have a dramatic influence on the use of lead compounds in Massachusetts.
New Case Study on Closed-Loop Degreasing Equipment
OTA announces the publication of the “Inner-Tite Corporation Toxics Use Reduction Case Study.” Inner-Tite Corporation has installed new closed-circuit degreasing equipment, manufactured by Forenta, which enables them to reduce air emissions by 97 percent, toxics use by 90 percent, and improve working conditions, with an annual savings of $12,000 of chemical costs. These highly automated units ensure minimal employee exposure to and efficient recycling of solvent. This and other case studies are available for download from OTA’s website at www.state.ma.us/ota.

For more information contact: Denise Zambrowski, MA OTA, (617)-626-1071, denise.zambrowski@state.ma.us.

Massachusetts Toxics Use Reduction Institute (TURI)
TURI has redone its website (http://www.turi.org) to better serve users and feature the Institute’s projects and sectors. Included are links from the front page to chemical information, Director Ken Geiser talking about security, lead-free electronics, and worker health and P2. Also linking from the front page are P2Gems (also redone), The Library catalog, TURA data, and the Surface Solutions Laboratory. Coming soon is a new community models website based on the TURN Community Grants Program.

TURI is hosting a workshop on April 10, at Schneider Electric, North Andover, MA on lead-free electronics. The featured speaker is Dr. John Sohn, NEMI Lead-Free Reliability Team Leader.

Each year the Massachusetts Toxics Use Reduction Institute selects companies that have shown best practices in reducing toxics and promoting environmental stewardship for its Cleaner Technologies Demonstration Site program. This year, three organizations were chosen for their innovative solutions: Texas Instruments in Attleboro, the Institute for Plastics Innovations in Lowell, and Rexam Image Products in South Hadley. The Demonstration Site program is designed to show neighboring companies and industry organizations toxics use reduction (TUR) techniques and technologies. This year’s recipients touch on three major aspects of TUR including, energy conservation, green materials in the wire and cable-coating industry and green chemistry.

TURI’s Surface Solutions Laboratory (SSL) reports that its no-chemical, parts-cleaning apparatus is ready for testing. While water-only technology has been used by the electronics and computer industries for some time, general parts cleaning is dependent on detergents. In addition, the Lab’s vendor survey database (Technical Report No. 15) is being replaced with a new publication that documents the actual test results of various cleaning products at the Institute. Visit www.cleanersolutions.org for more information on the Laboratory’s capabilities or call (978) 934-3249 or 3133.

With help from OTA and Planners, TURI will offer the Continuing Education for TUR Planners Conference on April 23 and 24 in Marlboro, with workshops in EMS, stakeholder communication, process energy efficiency, auditing, insurance incentives, coatings, green chemistry and toxicology.

The GREENLIST, an email bulletin from TURI’s Library of recent titles and abstracts is very popular. Let them know if you want to be on their list by writing to reference@turi.org.

For more information contact: Janet Clark, TURI, (978) 934-3346, clarkjan@turi.org.

Massachusetts Department of Environmental Protection (MA DEP)
DEP Announces Municipal Environmental Stewardship Grant
The Department of Environmental Protection announced compliance assistance grants for municipalities to establish, develop and implement environmental stewardship programs. Eligible projects will promote ongoing municipal compliance with environmental regulations and P2. A key feature of the program is measuring improvements in compliance. DEP especially encourages development and implementation of Environmental Management Systems.

This grant is being funded by the Environmental Protection Agency through its Office of Enforcement and Compliance Assurance. Grants include awards between $5000 and $20,000 as seed money for support of municipal environmental stewards. DEP and its consultant will evaluate environmental performance. The program will also provide assistance from mentors along with Environmental Management System training.
City and town departments or service agencies (such as associated Boards of Health or county health departments) can apply for grants. Projects can cover all municipal facilities or target a particular facility or groups of facilities. DEP especially favors proposals involving DPWs and schools.

For more information contact: Helen Waldorf, MA DEP, (617) 292-5819.

Tracking P2 in Enforcement

DEP's Central Region has compiled results of its innovative effort to track P2 in compliance and permitting. Beginning in 1999, staff developed a tracking worksheet to determine which facilities came into compliance using P2 techniques that resulted from permitting and enforcement. The worksheet consisted of familiar P2 source reduction techniques taken from the Massachusetts Toxics Use Reduction Act (TURA) program along with calculations to measure actual reductions in hazardous waste generation, Volatile Organic Compound (VOC) emissions and wastewater discharges.

In calendar year 2000, the staff at DEP's Central regional office determined that permitting and enforcement resulted in the following approximate reductions in pollutants: 2 tons of hazardous waste, 7 tons of NOX, 20 tons of VOCs, and 2 million gallons of wastewater.

DEP fiscal year tracking of P2 activities in enforcement activities is very specific. Categories include input substitution, production unit redesign, integral recycling, water and energy conservation, reduction in permit status, P2 in EMS and SEPs. Specific reductions are quantified for each of the categories.

For more information contact: Kim McCoy, MA DEP, (508) 792-7650.

Mercury Reduction at Rogers Memorial Hospital

In 1999, the Edith Norse Rogers Memorial Veterans Hospital (VA) located in Bedford, MA agreed to perform a Supplemental Environmental Project (SEP) in lieu of paying a penalty. The goals outlined in the DEP consent order were the elimination of products containing mercury within one year and the development of Best Management Practices for use by other hospitals at the national level.

The VA was able to eliminate considerable amounts of mercury. Some of their successes included:

- Full replacement of their mercury-containing sphygmomanometers (225) resulting in the elimination of an estimated 61.25 pounds of mercury from their facility.
- Thermometer and barometer replacement
- Replacement of high mercury containing fluorescent lamps with lower mercury lamps
- Plans in place to replace 43 mercury vapor lamps over time as they are taken out of service
- Changes in their purchasing policy to seek alternatives to mercury containing products where ever possible
- Extensive training on the hazards of mercury for hospital employees
- Implementation of a program to recycle mercury-containing amalgam generated from their dental service (666 mg recycled).

Beyond these mercury reduction actions, the VA is a member of MassRecycle's, Hospital Recycling Council and is a recipient of the Institutional Recycling Award. In the last four years they have recycled 3,720,000 pounds of materials. In fiscal year 2000 alone they were recycling approximately 40 percent of their total solid waste.

Further information contact: David J. Maine, Environmental Care Specialist, Edith Norse Memorial Veterans Hospital, 200 Springs Road, Bedford, MA 01730.

Verizon Agrees to Buy Low-Emission Vehicles

Verizon-New England Inc. has paid a $62,500 penalty to MA DEP for illegally installing and operating emergency generators at 19 sites around the state without required permits. Under an administrative consent order approved by the DEP, Verizon also has agreed to spend $187,500 to buy low-emission vehicles for its vehicle management fleet as part of a Supplemental Environmental Project, which must be completed within five years. Vehicles chosen for the project may include those powered by electricity, a combination of gasoline and electricity, compressed natural gas or liquefied natural gas.

For more information contact: Heidi O’Brien, MA DEP, (978) 661-7609.
USEFUL WEBSITES AND ELECTRONIC RESOURCES

Funded by MA DEP and MA EOEA, NEWMOA developed a number of fact sheets and a checklist to assist schools in identifying and removing mercury from their classrooms and buildings. http://www.newmoa.org/prevention/mercury/schools/

The Indoor Air Quality (IAQ) Tools for Schools (TfS) Kit shows schools how to carry out a plan of action to improve indoor air problems using straightforward activities and in-house staff. The Kit includes a guide and a series of forms to be used by the Program Coordinator and a number of checklists to be used throughout schools. http://www.epa.gov/iaq/schools/

King County, Washington has developed an outreach and assistance program to schools labs, known as Rehab the Lab. For this program, King County has developed a number of tools including fully scripted lesson plans, suggestions for how to reduce stockpiles, and a list of excessive risk chemicals. http://www.metrokc.gov/hazwaste/rehab/

This guide explains how you can minimize the hazardous wastes and other undesirable by-products generated by experiments that are performed in classroom laboratories. It is intended for middle school, high school, and college science teachers. The guide covers purchasing, managing inventories, conducting experiments, scaled down experiments, substitutes, and reusing and recycling. http://www.seattle.battelle.org/services/e&s/P2LabMan/

Developed for Washington State Department of Ecology and King County Hazardous Wastes Management Program’s cooperative “School Sweeps” project, this guide addresses hazardous waste management and identification, waste minimization, health and safety, chemical storage and a list of resources. http://www.ecy.wa.gov/pubs/97431.pdf

The purpose of the manual, Safety Information for the Science Classroom, is to strengthen safety practices in the science classroom and to provide science teachers and students with guidelines for a safe laboratory and study environment in which learning occurs. Developed as part of the Hazardous Waste Removal Project, this manual provides guidelines for elementary, middle, and high schools teachers on science safety and safety outcomes. http://www.thecatalyst.org/hwrp/safetymanual/index.html

The Mercury in Schools Topic Hub, developed by the Great Lakes Regional Pollution Prevention Roundtable (GLRPPR), is a quick guide to the essential pollution prevention information on Mercury in Schools, as well as a compilation of pertinent on-line resources. http://gdrprr.org/topicubs/toc.cfm?hub=37&subsec=7&nav=7

The Mercury in Schools website, developed by the University of Wisconsin’s Solid and Hazardous Waste Education Center (SHWEC), includes background information on mercury in the environment, where mercury is found in schools, P2 opportunities, and basic information on mercury in the home. http://www.mercury-k12.org/
New Hampshire Department of Environmental Services (NHDES)

**Mercury Legislation**
An amended version of HB 675 relative to Mercury Source Reduction was sent to interim study (again) by the NH House of Representatives in January. As introduced, the bill contained most of the provisions of the NEWMOA model legislation that had not yet been passed in NH (phase-out, labeling, disposal ban, state procurement). Major modifications had been made to the bill prior to the vote, but it did not pass due to heavy lobbying by opponents. The House Environment and Agriculture Committee will do further work on the bill; it will be reintroduced in 2003.

HB 1251 relative to the use of Mercury Amalgam by Dentists was introduced in the 2002 session. (This is not a NH DES-requested bill, but the Agency provided a letter of support based on the potential environmental benefits of the bill). As introduced the bill contained provisions to ban the use of mercury amalgam in children under 18, pregnant women and women of childbearing age and to require dentists to inform patients of the potential health risks of using mercury amalgam. The bill was amended in committee (the amalgam ban was removed and a provision to require dentists to use “appropriate equipment to trap and remove amalgam” was inserted) and it passed the House. There is a Senate hearing on the bill in late March.

**Marinas Project**
During the summer, 2001, the NHPPP completed the initial marinas site visits and distributed the Best Management Practices for New Hampshire Marinas; further site assistance ceased due to the seasonal nature of the business. In November 2001, NHPPP presented at the annual NH Marine Trade Association meeting. In January NHPPP held a Clean Marina Workshop for 49 representatives from 32 New Hampshire marinas. The workshop topics included compliance issues, P2 strategies, exotic species, hazardous waste and the Clean Marine Engine initiative.

Following the workshop two marinas requested site assistance. NHPPP is still participating in the Clean Marine Engine initiative, and 33 dealers have signed the Memorandum of Understanding to promote cleaner, more efficient motors. The NHPPP is presently working with the DES Solid Waste Recycling staff to adopt a program to collect and recycle agricultural shrink-wrap to address boat shrink-wrap.

**For information, contact:** Colleen Schwalbe, NH DES, (603) 271-0878, cschwalbe@des.state.nh.us.

**Hospitals Project**
NHPPP is continuing to participate with the New Hampshire Hospitals for a Healthy Environment (NH3E) project. Current activities are focusing on red-bag waste reduction, chemotherapy waste reduction and legislation banning the combustion of PVC wastes that is a source of dioxin emissions. NHPPP and NH Hospital Association will also provide a hospital workshop on June 13, 2002 that will focus on PBTs and related issues.

**Dental**
NHPPP is promoting both better recovery and recycling of mercury amalgam and the substitution of non-mercury alternatives as a P2 strategy. NHPPP continues to work closely with the NH Dental Society to promote better amalgam waste management. In the Winter of 2001, NHPPP created Best Management Practices for Dental Offices guidance that provides both compliance and P2 suggestions. The BMP material is being printed and should be ready in May when the NHPPP will present it at the NH Dental Society Annual Conference.

**New Staff**
In March, the NHPPP welcomed Colleen Schwalbe as the Program’s latest staff member. Colleen has a B.S. in toxicology from Northeastern and worked for five years as an Environmental Toxicologist in the State’s Bureau of Risk Assessment.

**For information contact:** Sara Johnson, NH DES, (603) 271-6460, sjohnson@des.state.nh.us.
STAKEHOLDERS AGREE ON FINANCING APPROACH FOR MANAGING USED ELECTRONICS

Representatives from electronics manufacturers, government agencies, environmental groups, and others have achieved a major milestone in the development of a joint nationwide plan for managing used electronics. In their fourth meeting on March 11-12 in Washington, D.C., all stakeholders in the National Electronics Product Stewardship Initiative (NEPSI) agreed to work toward the establishment of a financing system that will include the costs of managing used electronic products in the overall purchase price of new electronic products.

The agreement commits the stakeholders to work on the development of a “front-end financed system” during the remaining work of the NEPSI Dialogue and to develop an agreed action plan for establishing this system that includes federal legislation needed to facilitate the implementation of the system. The action plan will also include steps that can be taken during the period before the “front-end” system is in place nationally that will improve existing systems for managing used electronics and prepare for the new financing system.

The NEPSI participants identified several challenging issues remaining to be resolved, including the timeframe for implementing the front-end financed system, how to make the system convenient for consumers, whether it can provide incentives for product design, and how the costs and responsibilities for collection, reuse, and recycling will be shared among producers, retailers, consumers, and governments. The group also discussed the serious issue of the export of used electronics from the U.S. for dangerous backyard recycling by workers in Asia that was highlighted by a recent report and documentary video entitled “Exporting Harm.” They agreed that the NEPSI Dialogue will make recommendations on how to address this problem in the development of the new nationwide system for used electronics management.

The National Electronics Product Stewardship Initiative, organized in April of last year, consists of 45 participants, split evenly among industry, government, and a third group that includes environmental groups, recyclers, and retailers. NEWMOA has been asked by six of its member states—CT, ME, NH, NY, RI, VT—to represent their interests in NEPSI; MA and NJ are participating directly as individual states. The NEPSI group’s main goal for the dialogue is “the development of a system, which includes a viable financing mechanism, to maximize the collection, reuse, and recycling of used electronics, while considering appropriate incentives to design products that facilitate source reduction, reuse and recycling; reduce toxicity; and increase recycled content.” This “product stewardship” initiative involves a sharing of responsibility for the reuse and recycling of electronics by those who produce, sell, and use these products.

The NEPSI group has agreed to meet three more times over the next six months, while rotating meetings around the country to acknowledge the unique regional circumstances faced by state and local agencies. Participants hope that this dialogue will result in a voluntary national agreement by September.

For more information contact: Gary Davis, NEPSI, (865) 974-4251.
The objective of this project is to develop an Integrated Environmental and Occupational Health and Safety Management System. Key project elements include the following:

- Developing customized training materials to ensure that the curriculum reflects the facility's needs
- Training health and safety professionals, members of the facility health and safety committee, and production and maintenance workers on P2 methods and approaches and the opportunities inherent in using these strategies to reduce worker exposures to toxic chemicals and promote facility environmental goals
- Training environmental staff and other participants in facility P2 planning to recognize the potential positive and negative impacts of these cleaner production strategies on worker health and safety
- Strengthening communications and joint labor-management processes dealing with environmental and occupational health and safety and developing opportunities for increased worker involvement

The curriculum developed through this pilot project will be incorporated into OTEC’s ongoing training for New Jersey industrial workers and employers.

OTEC has identified and is currently working with one New Jersey facility on this project. The participation of two additional companies is still being sought.

The Office of Pollution Prevention and Permit Coordination of the NJ DEP, EPA Region 2, and consultants from the University of Massachusetts Lowell Work Environment Program are partners providing technical assistance and support on this project.

For more information contact: Mike McLinden, NJ DEP (609) 777-0518, mmclinde@dep.state.nj.us; Michele Ochsner, Ph.D., OTEC, (732) 932-3780, mochsner@rci.rutgers.edu.

Small Business P2 Conference

On April 17, 2002, the Small Business Environmental Assistance Program (SBeAP), of the NJ DEP Office of Pollution Prevention and Permit Coordination, through a grant from EPA, will be sponsoring a free workshop...
entitled, "How to Operate Your Business More Efficiently." It is being conducted in cooperation with other NJ DEP programs such as greenstart (a compliance assistance program) and the Office of Innovative Technology; other State agencies such as the New Jersey Program for Manufacturing Excellence; the New Jersey Commerce & Economic Growth Commission; the Iowa Waste Reduction Center; Federal agencies such as the United States Department of Transportation and EPA Region 2; and small business representatives, who have agreed to give presentations and/or lead breakout sessions.

The workshop is designed to help businesses realize the economic, environmental, and worker safety benefits of P2. Two hundred people are expected to attend from various small business sectors. There will be presentations to educate and assist companies in improving their understanding of environmental and worker safety regulations and how they are enforced. Participants will learn from experts how to reduce environmental liability and save money. There will also be an exhibit hall, where companies can discuss their particular needs with health and safety, P2, and financial service providers. Attendees can expect to participate in hands-on demonstrations to learn about practical, effective, proven P2 methods.

A main attraction at the workshop will be the Iowa Waste Reduction Center's Mobile Outreach for Pollution Prevention (MOPP) exhibit. The MOPP, housed in a 34-foot specially designed recreational vehicle, is a national outreach demonstration project developed to help small businesses improve their hazardous waste management practices. The Iowa Waste Reduction Center at the University of Northern Iowa produced the MOPP to conduct hands-on equipment demonstrations and waste reduction training, thus allowing participants to gain a better understanding of how equipment operates. Readily available commercial models are used to demonstrate P2 technology. Information on the MOPP is available from the following website, http://www.iwrc.org/programs/MOPP.cfm. To register for this free workshop, go to http://www.state.nj.us/dep/opppc/register.htm.

For more information contact: Ky Asral, NJ DEP, (609) 292-3600, kasral@dep.state.nj.us.

New York State Department of Environmental Conservation (NYS DEC)

Auto Recyclers
The Pollution Prevention Unit is coordinating a statewide initiative on auto recyclers. A workgroup comprising representatives from all DEC regions and program areas, enforcement, and legal affairs has met with staff from the Department of Motor Vehicles, Department of State, local government organizations, and the Attorney General's Office to develop a comprehensive effort to assist auto recyclers in improving their environmental performance. Beginning in early summer, all owners of these facilities will be notified regarding the initiative and encouraged to take advantage of outreach opportunities. Workshops will be held at nine locations across the state; a manual and poster will be distributed; and a web page will be put on the DEC website. Approximately 60 - 90 auto recyclers will be targeted for inspection in the fall. A database of the facilities will include measures to determine the effectiveness of this initiative.

Environmental Management Systems (EMS)
The NYS DEC Pollution Prevention Unit developed guidance documents on steps that a business could follow to develop and implement an EMS. These documents translate ISO 14001 concepts into laymen’s terms for use by business personnel with varying backgrounds. The documents are Understanding and Implementing Environmental Management Systems - A Step By Step Guide for Small and Medium Sized Organizations - Step 1: The Basics; Step 2: EMS Development and Implementation Guide; Step 3: EMS Template.

A sector-specific approach for promoting the use of EMS has been selected. The targeted sectors include metal finishing, electronics, printing, wood products, food and health care. The P2 Unit has also developed industry-specific compliance assistance and P2 manuals for these industries.
NYS DEC is also promoting the development of EMSs at state agencies by conducting workshops to inform state agencies of the benefits of EMSs and the EMS implementation resources available.

**Metal Finishing**
The Technical Review Board (TRB) has reviewed applications from two metal finishers and has approved both for placement on the Strategic Goals Project performance ladder. C. H. Thompson, Co. Inc. in Binghamton was awarded a Bronze certificate and Rochester Plating Works will be awarded a Silver certificate.

**Dairy Farm Mercury Manometer Project**
Staff in cooperation with the NYS Department of Ag & Markets has surveyed farms to identify the current use of Hg manometers. The initial survey had certified milk inspectors interviewing farmers. The survey was completed with a direct mailing to the remaining farms. Over 3000 farms were surveyed and 549 manometers in use were identified. A final report is currently being prepared that will include information on alternatives.

**Governor's Awards**
The New York State Governor's Awards for Pollution Prevention applications deadline is April 30, 2002. The awards will be presented during DEC's P2 Conference in May.

**P2 Conference**
The 14th Annual Pollution Prevention Conference is being held May 29-31, 2002, at the Crowne Plaza Hotel in Albany NY. The theme for this year is “Pollution Prevention through Energy Efficiency” and the conference is being co-sponsored by NYS Energy Research and Development Authority, the NYS Public Service Commission and the Business Council of New York State, Inc. The respective heads of these agencies will join Erin M. Crotty, Commissioner of the NYS DEC in the opening Plenary Session. The keynote address will be given by New York Congressman Sherwood L. Boehlert. At the dinner, the Governor's Awards for Pollution Prevention are presented to the 2002 winners and attendees will be entertained by NYS DEC's Terry LaFrance, who will give a slide presentation on “Climbing Mt. Everest.” NYS DEC is working on plans to get the conference certified as a cleaner and greener (or zero emissions) event by Michael Arny of the Leonardo Academy, who will be a conference speaker.

**Poster Contest**
DEC's 2002 Pollution Prevention Poster Contest has been announced. This year's theme is “Conserve Energy.” Winners will be announced during National P2 Week September 16 - 22, 2002. Contest rules are available on their website.

**Outreach**
**Marinas** - P2 staff are developing an outreach program for the marina industry, including a Pollution Prevention Self Assessment and Compliance Manual. Staff held five marina workshops statewide over the past few months. A marina video featuring P2 measures used at NYS marinas was developed. Five additional workshops will be held in fall 2002.

**State Agency Workshops** - Pollution Prevention staff held five P2 workshops in March 2002 for state agencies with agendas focused on P2, environmental compliance issues and environmental management systems.

**Pulp and Paper Industry** - The P2 Unit has drafted a Compliance and Self Assessment manual for the pulp and paper industry.

**Hospitals** - Staff in conjunction with the NYS Department of Health conducted six seminars to provide technical information on P2 activities and methods to the health care industry. In addition, the host hospital provided a facility tour to demonstrate the successful implementation of P2 at the facility. Follow-up surveys are being conducted to evaluate the impact of the seminar on attendees and to see if they would like to participate in a follow-up site visit to discuss P2 opportunities at their facility. A Task Force is also being put together to evaluate waste management rules, regulations, and policies that impact health care facilities and determine the limitations and barriers that are preventing health care facilities from improving environmental performance.

**Comparative Risk Project**
The Comparative Risk Project identifies those environmental stressors that pose the highest risks to the citizens and environment of NYS in order to develop a P2 strategy aimed at reducing risk. Reports from Phase 1 of this project are available on DEC's website. A Risk Reduction Strategies Work Group has identified P2 strategies for the high risk chemicals identified in Phase 1. A report with strategies ranked according to risk, feasibility, cost,
exposure and commonality is being prepared and will be sent to the Project's Steering Committee for review and acceptance. Recommendations are expected to be made to the DEC Commissioner by mid-summer. All project reports are available online at www.dec.state.ny.us/website/ppu/p2crp.html.

For more information contact: Dennis Lucia, NYS DEC, (518) 402-9472, djlucia@gw.dec.state.ny.us.

New York City Department of Environmental Protection (NYC DEP)

Auto Body Shop Workshops
The Environmental Economic Development Assistance Unit (EEDAU) in the Bureau of Environmental Compliance of the NYC DEP conducted its second series of informational workshops on New York City’s Community Right-to-Know Law in the five boroughs (two workshops in Brooklyn) for NYC Auto Body Shop owners, managers and technicians. The purpose of the sessions was to inform the auto body shops that they are required to comply with the NYC Community Right-to-Know Law under Federal Law Sara Title III; help them fill out the Facility Inventory Form; discuss the attachments required, i.e., MSDS sheets; explain whom to send the forms to; and show how to calculate the fee.

Printers Workshops
As parts of the NYC DEP’s ongoing outreach to printers on regulatory compliance and P2, EEDAU conducted a workshop for printers in Brooklyn with the Southwest Brooklyn Industrial Development Corporation (SWIDC) in December. The title of the Workshop was “The Purposes that Air Pollution Permits Serve.” The Agency’s goal was to provide a brief discussion of the 1990 Clean Air Act Amendments, types of required permits, how permits provide a legal basis for operating a facility, knowing the specific permit control requirements applicable to one’s printing operation, and understanding the nature of the terms and conditions of one’s permit to avoid violations. In March the Agency conducted the same workshop in Long Island City, Queens with the Long Island City Business Development Corporation (LICBDC). The Agency expects to conduct a similar workshop on permits in the Bronx in May or June.

For more information contact: Rose Marabetti, NYC DEP, (718) 595-4541.

The Narragansett Bay Commission

The Narragansett Bay Commission (NBC) has moved from 235 Promenade Street in Providence to a location across street from the Field’s Point Wastewater Treatment facility at One Service Road, Providence, RI 02905. Their new phone number is (401) 461-8848 and the new fax number is (401) 461-6540.

Strategic Goals Program (SGP)

The NBC continues to remain an active participant in this important national program that encourages voluntary “beyond compliance” environmental performance by the metal finishing industry. Recent stakeholder meetings in Washington D.C. and Chicago have helped to focus NBC efforts toward encouraging other POTWs to sign onto the SGP. NBC has contacted other Rhode Island POTWs through the Rhode Island Pretreatment Coordinator’s Association offering assistance with initiating SGP activities within their members’ individual servicing districts. Through these efforts NBC hopes to see more metal finishing companies committing to the SGP level of superior environmental performance.

Best Management Practices

The NBC is in the process of developing a series of industry specific Environmental Best Management Practices (EBMPs) as part of an EPA grant-funded technical assistance program. After meeting with representatives of the Rhode Island Department of Environmental Management and various trade association groups and business representatives, NBC has decided to focus initial attention on developing an EBMP for Artists and Art Studios.

Rhode Island and particularly the cities of Providence and Pawtucket are home to numerous professional and amateur artists. Many of the materials used by these
artists in studios and in their homes contain hazardous materials, such as heavy metals and toxic and/or flammable solvents. If disposed of improperly, these materials can have a detrimental impact on the environment. NBC hopes to use these EBMPs to encourage the use of less toxic materials by the local art community and to promote the use of proper disposal methods for hazardous waste that is generated. Meetings with art community stakeholders are scheduled for the spring and summer months of 2002. A final EBMP should be ready for distribution by September 2002.

**Compliance Checklist**

EPA Regional I-New England has been very proactive with respect to promoting various voluntary environmental performance programs, such as Performance Track, Metal Finishing 2000, Project XL and the National Strategic Goals Program (SGP). The NBC has likewise participated in these programs with a major focus on the metal finishing industry. Recent regulatory inspections conducted by EPA and RI DEM, however, indicates that some of the companies that could be recognized by these programs as “good environmental performers” are being found to be in non-compliance with some basic regulatory requirements. Some of the more frequently identified discrepancies include - lack of an updated hazardous waste contingency plan, failure to conduct required hazardous waste storage area inspections, and failure to maintain proper employee training records. To help these companies reach their full environmental performance potential and to help get them involved with these various “beyond compliance” programs, EPA Region I-New England and NBC are in the process of developing an environmental compliance status survey form. This form will be distributed among the metal finishing community to help identify the most common and problematic compliance issues. The results of this survey will help EPA Region I-New England and NBC better focus future educational and technical assistance efforts on identified problematic issues.

**MP&M P2 Compliance**

The Metal Products and Machinery (MP&M) rule published in the January 3, 2001 Federal Register contains proposed wastewater discharge limits for the metal finishing industry that has the potential to close the doors on many small to medium-sized job shops. As part of the rule-making process, however, EPA did consider the benefits of pollution prevention and has developed a list of P2 alternatives that could be used in lieu of the proposed strict effluent limits. Section XXI (D) of the MP&M Rule states that metal finishing companies may continue to be regulated in accordance with existing categorical standards or local limits, whichever are more stringent, provided they have in place certain P2 and procedures. P2 practices specifically identified in the rule are as follows:

- Use Dragout Reduction/Recovery Techniques and Practices
- Implement Water Conservation Rinses Designs
- Practice Water Flow Control
- Segregate Process Wastewater from Non-Process Wastewater
- Use Water Conservation Practice with Respect to Air Pollution Control – in many cases “scrubber” water used to control chromium, nickel and other heavy metal air emissions can be utilized back in the plating process
- Use Good House Keeping Practices
- Minimize Discharge of Oily Waste to Process Rinse Tanks
- Sweep or Vacuum Dry Production Areas Prior to Washing/Rinsing
- Reuse Drum/Shipping Container Rinse Water Directly in Process
- Implement an Environmental Management System and Environmental Record Keeping/Reporting System

NBC saw this proposed rule as an opportunity to promote the use of these P2 activities within the local metal finishing shops. As part of this effort NBC’s P2 Office will conduct “MP&M” P2 audits of metal finishing facilities and will follow-up with a report in how a particular company can better comply with the MP&M P2 list. Companies that are in full compliance with list of P2 activities will receive a certificate of compliance. Should the MP&M rule be passed with the P2 option in place, those companies with compliance certificates will be in a good position to request an exception from the strict MP&M discharge limits. Should the rule not pass, NBC is confident companies implementing these P2 activities will see cost and environmental compliance benefits that will have made their efforts worthwhile. Activities conducted as part of this project are partially funded through an EPA PPIS grant award.

For more information contact: Jim McCaughey, RI NBC, (401) 461-8848.
## Northeast States P2 Calendar

<table>
<thead>
<tr>
<th>Title</th>
<th>Sponsor</th>
<th>Date / Location</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002 Pollution Prevention Conference</td>
<td>NH DES, NHPPP</td>
<td>April 1, 2002, Durham, NH</td>
<td>603-271-6460</td>
</tr>
<tr>
<td>NPPR 2002 Spring Conference</td>
<td>NPPR</td>
<td>April 2-5, 2002, Portland OR</td>
<td>202-466-7272</td>
</tr>
<tr>
<td>Reducing Toxic Chemical Use in Our Communities</td>
<td>Massachusetts Health Officers Association</td>
<td>April 3, 2002, Plymouth, MA</td>
<td>781-740-2442</td>
</tr>
<tr>
<td>Lead-free Electronics Workshop</td>
<td>MA TURI</td>
<td>April 10, 2002, North Andover, MA</td>
<td>978-934-3346</td>
</tr>
<tr>
<td>How to Operate Your Business More Efficiently</td>
<td>SBEAP, NJ DEP</td>
<td>April 17, 2002, East Windsor, NJ</td>
<td>609-292-3600</td>
</tr>
<tr>
<td>Hazardous Waste Combustors Specialty Conference &amp; Exhibition</td>
<td>A&amp;WMA, CKRC, CRWI</td>
<td>April 17-19, 2002, St. Louis, MO</td>
<td>573-335-8878</td>
</tr>
<tr>
<td>The Clean Air Compliance Institute</td>
<td>ABS Consulting</td>
<td>April 22-25, 2002, New Orleans, LA</td>
<td>301-921-2345</td>
</tr>
<tr>
<td>Continuing Education Conference for Toxics Use Reduction Planners</td>
<td>MA TURI, MA DEP, MA OTA</td>
<td>April 23-24, 2002, Marlboro, MA</td>
<td>978-934-3144</td>
</tr>
<tr>
<td>Health, Env. &amp; Econ. Impacts of Liquid &amp; Atmospheric Emissions from Ships</td>
<td>A&amp;WMA</td>
<td>April 24-26, 2002, Vancouver, British Columbia</td>
<td>412-232-3444 x3111</td>
</tr>
<tr>
<td>Applied Statistics for Environmental Professionals</td>
<td>SETAC-NAC</td>
<td>April 24, 2002, Portland, ME</td>
<td>207-828-0046 or 978-332-2816</td>
</tr>
<tr>
<td>Reducing Toxic Chemical Use in Our Communities</td>
<td>MHOA</td>
<td>April 25, 2002, Wellesley, MA</td>
<td>781-740-2442</td>
</tr>
<tr>
<td>Breaking the Mercury Cycle</td>
<td>NEWMOA</td>
<td>May 1-3, 2002, Boston, MA</td>
<td>617-367-8558</td>
</tr>
<tr>
<td>Communities: Setting Trends in Waste Prevention &amp; Recycling</td>
<td>U.S. EPA</td>
<td>May 1, 2002, Satellite Forum</td>
<td><a href="mailto:wwsf@erg.com">wwsf@erg.com</a></td>
</tr>
</tbody>
</table>

Continued on next page
## NORTHEAST STATES P2 CALENDAR

<table>
<thead>
<tr>
<th>TITLE</th>
<th>SPONSOR</th>
<th>DATE / LOCATION</th>
<th>CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Finishing 2002</td>
<td>SME</td>
<td>May 6-8, 2002, Novi, MI</td>
<td>313-271-1500, x2101</td>
</tr>
<tr>
<td>The Clean Water Compliance Institute</td>
<td>ABS Consulting</td>
<td>May 6-9, 2002, Atlanta, GA</td>
<td>301-921-2345</td>
</tr>
<tr>
<td>EnviroExpo 2002: Creating Cost Efficient Sustainable Results</td>
<td>EnviroExpo</td>
<td>May 7-9, 2002, Boston, MA</td>
<td>617-489-2302</td>
</tr>
<tr>
<td>3rd International Conference on Remediation of Chlorinated &amp; Recalcitrant Compounds</td>
<td>Battelle</td>
<td>May 20-23, 2002, Monterey, CA</td>
<td>800-783-6338 or 614-424-5461</td>
</tr>
<tr>
<td>Removing Toxics from the School Environment</td>
<td>EPA Reg. I- NE, CT DEP, CT DOH, CT OSHA</td>
<td>May 21, 2002, Hamden, CT</td>
<td>860-424-3234</td>
</tr>
<tr>
<td>Compliance Monitoring for Title V/Part 70</td>
<td>ABS Consulting</td>
<td>June 3-4, 2002, Savannah, GA</td>
<td>301-921-2345</td>
</tr>
<tr>
<td>The Advanced Clean Air Compliance Course</td>
<td>ABS Consulting</td>
<td>June 5-6, 2002, Savannah, GA</td>
<td>301-921-2345</td>
</tr>
<tr>
<td>Hospital Workshop on PBTs &amp; Related Issues</td>
<td>NH PPP, NH Hospital Assn.</td>
<td>June 13, 2002</td>
<td>603-271-6460</td>
</tr>
<tr>
<td>10th International Conference of the Greening of Industry Network</td>
<td>GIN</td>
<td>June 23-26, 2002, Goteborg, Sweden</td>
<td>46 31 772 4905, 4907</td>
</tr>
<tr>
<td>Region IV/DOD Environmental Conference</td>
<td></td>
<td>June 25-27, 2002, Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>17th Annual Hazardous Materials Management Conference</td>
<td>NAHMMA</td>
<td>September 3-6, 2002, Addison, TX</td>
<td>916-565-0177</td>
</tr>
<tr>
<td>Towards Sustainable Product Design 7</td>
<td>Centre for Sustainable Design</td>
<td>October 28-29, 2002, London, UK</td>
<td><a href="mailto:rwhite@surrart.ac.uk">rwhite@surrart.ac.uk</a></td>
</tr>
<tr>
<td>Heavy Metals in the Environment</td>
<td></td>
<td>May 26-30, 2003, Grenoble, France</td>
<td></td>
</tr>
</tbody>
</table>

For a more complete listing of upcoming events, visit [www.newmoa.org](http://www.newmoa.org)
Following the lead of Maine, the Vermont Department of Environmental Conservation is carrying out a mercury auto switch removal/replacement project for the state’s fleet of vehicles through a combination of methods. Environmental Assistance Division staff has replaced mercury switches in DEC’s vehicles. Vehicle maintenance staffs for the Departments of Forests and Parks and Fish and Wildlife have been trained to replace mercury switches and have been provided with mercury-free switches for their vehicles on the road. The Agency of Transportation has agreed to replace mercury switches on its fleet. All state vehicles that are sold at auction will be checked and mercury switches removed prior to sale. These steps will in effect ensure that nearly all mercury switches in the state vehicle fleet will be captured at some point in the future. DEC has received tremendous cooperation from other state agencies and departments.

Four auto salvage yards have volunteered to remove mercury switches from scrapped vehicles as they are received, and some of these yards have agreed to check and remove mercury switches from vehicles already in the yards. DEC is very encouraged by the initial response they have received and hope to expand this effort in the coming year.

VT DEC and the Health Department are working with health care professionals to develop a plan to improve outreach to sensitive populations on fish consumption advisories. Native American and other ethnic populations will be targeted as well as low income families. Efforts are underway to provide better information on mercury at state boating access points on lakes and ponds.

For more information contact: Gary Gulka, VT DEC, (802) 241-3626, GaryG@dec.anr.state.vt.us.
On November 16, Rob Guillemin conducted a half day workshop on Environmentally Preferable Purchasing for the Montana DEQ and the Montana Department of Administration.

**Storm Water Phase II**

EPA Region 1-New England has developed a decision tree entitled “Do you need a Federal NPDES Storm Water Permit for Construction? Where should you get it?” as a tool to help developers, construction firms and local boards comply with the federal program, which requires a P2 plan with some whole-operation features lacking in most state erosion and sediment control laws. The tree also shows how the federal law relates to NE state requirements.

An article on storm water requirements and P2 approaches for construction projects that Abby Swaine from EPA Region 1-New England co-wrote with former contractor JW Deering will appear in the March/April issue of *Land and Water* magazine. The Region will be placing similar articles in other industry publications.

OECA is running a large public/private work group to identify and develop tools needed to help the construction industry comply and go beyond to P2. The group is addressing seven issues: Storm Water, Wetlands, Hazardous/Toxic Waste, Nonhazardous Construction and Demolition Waste Minimization, Air Pollution, Green Building, and the Endangered Species Act. Contact Abby Swaine if you would like to participate; several states outside NE are doing so.

In partnership with Maine DEP, EPA Region 1-New England will be conducting nine workshops for DPWs this spring to orient them to their stormwater compliance obligations and P2 opportunities.

**For more information contact:** Abby Swaine, EPA Region 1-New England, (617) 918-1841, swaine.abby@epa.gov.

**Colleges/Universities**

EPA Region 1-New England will hold a video conference workshop for colleges and universities on stormwater P2 and permitting requirements on April 15th at Northeastern (host site), Worcester Polytechnic Institute, University of Connecticut, University of New Hampshire, University of Maine and Brown University.
EPA Region 1-NE's Colleges and Universities Environmental Management Systems Pilot Program is underway. Wentworth College, University of New England and Univ. of Massachusetts Amherst will participate in this 18 month program, which takes participants through the various stages of EMS implementation.

With the help of university partners, the Region held EMS workshops for colleges and universities at Yale University on March 20 and MIT on March 21.

EPA Region 1-NE hosted a “Next Steps in Environmentally Sustainable Practices” workshop at Tufts University on January 15th. 95 participants attended this one-day workshop addressing energy, purchasing, green buildings, and how compliance meets greening-the-campus efforts.

**For more information contact:** Peggy Bagnoli, EPA Region 1-NE, (617) 918-1828.

**Marina Sector Initiative**

The Marina Team conducted 70 on-site assessment visits at Marinas to gather baseline compliance data that will shape P2 and compliance outreach as well as enable the Region to compare practices before and after outreach.

**For more information contact:** Larry Wells, EPA Region 1-NE, (617) 918-1836, wells.larry@epa.gov.

---

**Pollution Prevention News**

EPA Region 2 has recently launched a new newsletter called, *Region 2 Compliance Assistance & Pollution Prevention*. The periodic newsletter will cover compliance assistance and pollution prevention activities underway in the Region. For a copy of the newsletter, contact Region 2’s Compliance Assistance Section, (212) 637-4050 or visit http://www.epa.gov/region02/capp.

**Outreach to Plumbers**

A partnership among Con Edison, EPA Region 2, and Keyspan hosted a forum in October in Queens aimed at helping plumbers learn about the health, environmental and liability issues surrounding the use of mercury gauges or manometers. A follow-up exchange program provided licensed plumbers with safe, mercury-free gauges and mercury disposal services free-of-charge at four locations in New York City and surrounding areas. As a result of the exchange program, 73.5 pounds of mercury were collected and 59 non-mercury gauges were distributed.

Licensed plumbers have historically used mercury gauges to pressure-test gas lines and ensure safe gas levels for the operation of appliances, such as stoves, hot water heaters, and heating systems. If mercury gauges are not used or handled properly, or are accidentally broken, the mercury may be released into the environment and evaporate into the air.

In October 2001, EPA Region 2 gave a grant to the NYS DEC to conduct an outreach program to plumbers, trade associations, and other stakeholders to promote the use of mercury-free gauges and ensure the safe disposal of mercury gauges. As part of this effort DEC will identify municipalities in New York state that currently require...
plumbers to use mercury gauges and provide them with model language that requires mercury-free gauges instead. NYS DEC will also network with gas utility companies to develop take back programs for mercury gauges and with local governments to collect them on household hazardous collection days.

For more information contact: Deborah Meyer, EPA Region 2, (212) 637-3521, meyer.deborah@epa.gov.

Performance Track
A National Environmental Performance Track Networking and Recruiting Workshop took place on March 26, 2002. This workshop introduced prospective applicants to Performance Track program incentives and entrance requirements. Attendees heard directly from current members about the value of participating in the program and the benefits of EMSs. The workshop was hosted by Johnson and Johnson, Ortho-McNeil Pharmaceutical in Raritan, NJ.

For more information contact: Marcia Seidner, EPA Region 2, (212) 637-3584, seidner.marcia@epa.gov.

EMS
A workshop on “EMSs and Performance Track: Best Practices and How To’s” will take place on April 4, 2002, at the NPPR Conference in Portland, OR. This panel will feature four Performance Track Members. Speakers will discuss the value of implementing an EMS and the nuts and bolts of how to get started and shed light on EMS costs, developing objectives and targets and calm fears about audits. Panelists will also discuss P2 approaches designed to increase efficiency, reduce liability and save money. Lastly, panelists will talk about their reasons for joining EPA’s Performance Track and explain what it has been like to open their doors to the EPA and the public. The panel moderator will be Marcia Seidner, EPA Region 2 P2 Program Coordinator.

For more information contact: Marcia Seidner, EPA Region 2, (212) 637-3584, Seidner.marcia@epa.gov.

Innovative Technology Profile: Closed-Loop Vapor Degreasing
Several years ago EPA Region 1-New England established a workgroup of state and federal P2 program staff to focus on diffusion of innovative P2 technology. Last year NEWMOA began managing the Innovative P2 Technology Workgroup. The first workgroup focus was on closed-loop vapor degreasing, a class of technologies that can reduce hazardous air emissions and waste generation by approximately 98 and 75 percent, respectively when compared to the conventional technology, open top vapor degreasers. NEWMOA developed a Pollution Prevention Technology Profile (P2 Profile) on closed-loop vapor degreasing technology that is available on NEWMOA’s website: www.newmoa.org. The next technology focus chosen by the workgroup is closed-loop aqueous cleaning systems, and NEWMOA is preparing the P2 Profile that should be available later this spring.

The Innovative P2 Technology Workgroup held a meeting in June 2001 to learn about closed-loop vapor degreasing technology, as well as the chemical-free cooling tower water treatment technology evaluated by Mass OTA. In addition, Mike Kosusko of EPA’s Environmental Technology Verification (ETV) program briefed the workgroup on the P2 technologies evaluated by that program. The meeting also provided the workgroup with an opportunity to share perspectives on the various efforts to improve technology diffusion. A workgroup meeting will be scheduled for later in 2002.

For more information contact: Jennifer Griffith, NEWMOA, (617) 367-8558 x303, jgriffith@newmoa.org.

P2 Week 2002
The Northeast state environmental agencies have been coordinating on Pollution Prevention Week activities for the past five years. This year Pollution Prevention Week will take place September 15-21. NEWMOA will assist
the states by coordinating some efforts under a common theme of energy conservation. States are planning to organize a variety of activities and to collaborate regionally on a joint resolution and development of some educational resources.

**P2 & Assistance Program Software**

NEWMOA has developed some software to assist the member states with tracking and assessing the impacts of P2 and environmental assistance program activities. The software is a Microsoft Access-based system that has powerful database tracking capabilities and includes both activity and outcome-oriented data elements. Copies of the software have been sent to the states in the region and those interested outside of the region. EPA Region I-New England and EPA Headquarters provided substantial support for the development of the software. NEWMOA plans to develop a user's manual and training workshop this spring. NEWMOA staff will be holding training workshops in the states to help them learn how to use and maintain the software.

**Breaking the Mercury Cycle**

NEWMOA is organizing a national conference, “Breaking the Mercury Cycle: Long Term Management of Surplus and Recycled Mercury and Mercury-Bearing Waste” for May 1-3, 2002. The conference will focus on the policies, technologies and techniques to address environmentally sound management and treatment of excess mercury supplies and stockpiles, and mercury-bearing wastes. It will provide an opportunity for participants to learn about the current policy framework, mercury materials flow, research underway on different treatment and storage technologies, and other long term options for management of surplus and recycled mercury and mercury-bearing waste. Visit www.newmoa.org/prevention/mercury to learn more about the conference and to register online.

**Interstate Mercury Education & Reduction Clearinghouse (IMERC)**

NEWMOA has begun to manage the efforts of IMERC to collect and manage data on mercury-added products. New Hampshire, Maine and Rhode Island now require firms that manufacture, distribute or import mercury-added products to report on the amount of mercury in those individual products and the total amount of mercury used in all of those products sold in the U.S. in a year. IMERC has created reporting forms and is collecting and reviewing forms submitted by product manufacturers and others. IMERC will create a database of the information in the Clearinghouse to be posted on NEWMOA's website later this year.

**P2 Activities Database**

NEWMOA's website currently houses a Regional P2 Activities Database (http://www.newmoa.org/prevention/activities/), which is made up of activities of federal, state, and local P2 programs throughout the Northeast. This collection of “who is doing what” is made up of information from the Northeast States Pollution Prevention News. The access to this information is improved by making it searchable by state, program, sector, or area of expertise as well as allowing full-text searching. The Database includes trainings and workshops, research and development projects, awards programs, sector or topical initiatives and other outreach and assistance activities. Federal, state, and local programs are invited to add new information or update existing information in the database at any time by logging on to the NEWMOA website.

**National Mercury Reduction Programs Database**

The National Mercury Reduction Programs Database (http://www.newmoa.org/prevention/programs/) is a repository of information on local, state, and federal mercury reduction activities. The database is designed to allow for information sharing on what reduction strategies and programs exist and what the results of these programs have been. The database is searchable by state, product, affected groups, type of program, as well as being full-text searchable.

There are over 120 records in the Database with programs from twenty states, ten local programs, as well as regional, federal, and international programs. There is an online input form to be used by federal, state and local program staff for adding programs to the database. The Database has grown significantly over the past year through collaboration with the Environmental Council of States (ECOS) that involved adding the information to the Database that was collected for the publication, Mercury in the Environment, States Respond To the Challenge: A Compendium of State Mercury Activities. In the coming months, NEWMOA will be coordinating with the other centers that make up the Pollution Prevention Resource Exchange (P2Rx) to facilitate ongoing collection of program information nationally.

For more information contact: Terri Goldberg, NEWMOA, (617) 367-8558 x302, tgoldberg@newmoa.org.
Paper for the Northeast P2 News

This issue of the Northeast P2 News is printed on a new chlorine-free paper. The stock contains 50 percent sugarcane pulp and 50 percent recycled materials, of which 30 percent is post-consumer fiber. According to EPA, the use of tree-free fibers in the paper-making process has several environmental advantages over wood-based feed-stock. Tree-free fibers contain lower levels of lignin than tree cellulose and, therefore, require significantly fewer chemicals for processing. Additionally, less energy and water is used to process these fibers, and tree-free fibers can be blended with post-consumer materials to create papers for many applications.

NORTHEAST STATES POLLUTION PREVENTION NEWS

☐ I would like to receive the Northeast States P2 News via e-mail. I've included my e-mail address below.

☐ Please add my name to the Northeast States P2 News mailing list.

☐ Please remove my name from the mailing list.

☐ Please change my address (send us your old mailing label and list the new address below).

Name ____________________________________________

Company/Agency/Organization ____________________________

Address ____________________________________________

____________________________________________________________

City __________________________________ State __ Zip __________

E-mail (please print clearly) ________________________________

Return this form to: NEWMOA, 129 Portland Street, 6th Floor, Boston, MA 02114, fax: (617) 367-0449, e-mail: nep2news@newmoa.org.