FEATURE ARTICLE

Assessing Alternatives to Priority Toxics

According to the U.S. Environmental Protection Agency (EPA), businesses today face a variety of critical environmental and economic challenges, including maintaining high-quality goods and services at a low cost; staying competitive in a global marketplace, and meeting consumer preferences for more environmentally friendly products. To help businesses meet these challenges, EPA and many states are promoting the concept of Design for the Environment or DfE as a critical aspect of their pollution prevention, resource conservation, and environmental assistance programs. DfE promotes the design or redesign of products and processes that are cleaner, more cost-effective, and safer for workers, the environment, and the public.

To be successful DfE involves:

1. Examining the hazards of chemicals used in an industry
2. Assessing alternative processes, formulations, and emerging technologies
3. Promoting risk reduction through cleaner technologies and safer chemical choices

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Assessing Alternatives to Priority Toxics
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This Feature Article provides a description of two state initiatives as models for ways that other states and jurisdictions can play a critical role in promoting and advancing design for the environment. The Massachusetts Toxics Use Reduction Institute (TURI) recently conducted an extensive study to develop a methodology and approach for addressing a key aspect of successful design for the environment — assessing alternative formulations and technologies for targeted toxic chemicals in products. Promoting DfE approaches with New Jersey manufacturers is a critical aspect of the implementation of the recently updated New Jersey pollution prevention planning law.

Five Chemicals Study Reveals Safer Alternatives

The Massachusetts Toxics Use Reduction Institute (TURI) at the University of Massachusetts Lowell identified safer alternatives to five hazardous chemicals as published in the report, the Five Chemicals Alternatives Assessment Study available at www.turi.org.

The collaborative process accomplished so much more than a report. Because TURI worked with all impacted Massachusetts industries and other stakeholders, we now have a solid platform of research to create academic, industry, and community partnerships in the pursuit of new technological processes for Massachusetts manufacturers.

– David Wawer
CEO of the Massachusetts Chemistry and Technology Alliance

The Commonwealth of Massachusetts commissioned the study to carefully consider if less toxic alternatives were available for perchloroethylene, formaldehyde, di(2-ethylhexyl)phthalate (DEHP), lead, and hexavalent chromium.
The Study was designed to help industry, as well as those providing technical assistance to businesses, make informed choices about alternatives. Study results present performance, health and safety, and economic information on alternatives for selected uses of the five chemicals.

The TURI assessment compared the five chemicals with approximately 100 alternatives in 16 applications. For example, perchloroethylene used in dry cleaning was compared to the alternatives of wet cleaning and hydrocarbons.

Even though TURI did not assess all uses and alternatives, an exhaustive list of all the chemical uses can be found in the appendix of the report. The body of the report details all of the alternatives that were screened.

In every application studied, at least one alternative was identified that was commercially available, was likely to meet the technical requirements of some users, and was likely to have reduced environmental and occupational health and safety impacts.

TURI selected the uses to be studied based on the importance to Massachusetts industry and consumers, the likely availability of alternatives, and the extent of possible exposures for workers and the general population.

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<th>Chemical</th>
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<td>Perchloroethylene</td>
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<td>• Vapor degreasing</td>
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<td>• Aerosol automotive cleaning</td>
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<td>Formaldehyde</td>
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<td>• Hardwood plywood and structural use building panels</td>
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<td>• Passivation of zinc plated parts and zinc galvanized steel</td>
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The success of the project depended upon upfront transparency and steady communications with all organizations affected by the study. TURI facilitated three meetings with a diverse group of Massachusetts stakeholders – companies, government, advocacy groups, environmental and health organizations, labor unions, and industry associations. Stakeholders had the opportunity to exchange and understand disparate viewpoints. For example, industry representatives revealed what they have done to identify and implement safer alternatives to hexavalent chromium. Labor representatives shared the concerns of workers regarding the chemicals in the study. Because of the success of the stakeholder process, the final report represents the beginning of an ongoing collaboration to find innovative, safer products.

The study also yielded important lessons about using an alternatives assessment methodology to evaluate chemicals and alternatives. TURI encourages organizations to build upon this work by using the results and methodology to pilot test alternatives and analyze other chemicals and uses.

For more information visit: www.turi.org or contact Liz Harriman, TURI (978) 934-3387, Harriman@turi.org.

Reducing Priority Chemicals & Pollutants in New Jersey

New Jersey is one of a handful of states that has implemented a mandatory pollution prevention (P2) planning program. Industrial facilities are required to develop a P2 Plan and submit a P2 Plan Summary every five years and to submit annual P2 Plan Progress Reports. This program is administered by the New Jersey Department of Environmental Protection (NJ DEP).

Information required in a P2 Plan must be reported in two parts. Part I consists of a comprehensive inventory of the use and release of hazardous substances and the generation of hazardous wastes and non-product output (NPO) for each source and production process at a priority industrial facility. Non-product output is defined by the New Jersey P2 Act as “all hazardous substances or hazardous wastes that are generated prior to storage, out-of-process recycling, treatment control or disposal, and that are not intended for use as a product.” Under the framework of the P2 Act, the result of an industrial
process can always be classified as either product or non-product output.

Part II of a P2 Plan consists of a detailed analysis for targeted production processes and sources of available P2 options that may substantially reduce the use and generation of hazardous substances and those options that will be implemented during the five-year planning cycle. A targeted production process is any production process that significantly contributes to the use or release of hazardous substances or the generation of hazardous waste or NPO. A source is a point or location in a production process at which NPO is generated or released, and a targeted source is a source that significantly contributes to the generation of NPO. The list of hazardous substances regulated under the P2 Act is equivalent to the list of substances established by the U.S. Environmental Protection Agency (EPA) for reporting pursuant to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313, also known as the Toxic Release Inventory (TRI) List.

The hope is that once facilities do their homework and find that P2 options are available, they will reduce the use and generation of PBTs.

In September 2005, the NJ DEP readopted the Pollution Prevention Program Rules and incorporated an amendment to these rules whereby industrial facilities must target for Part II P2 planning all sources or production processes that use or generate as NPO, persistent, bioaccumulative, toxic (PBT) substances above the applicable TRI reporting thresholds. The idea is that once facilities do their homework and find that P2 options are available, they will reduce the use and generation of PBTs.

This provision will be applicable to facilities when they are required to prepare their new five-year P2 Plans. The NJ DEP will be tracking the progress facilities are achieving in reducing the use and generation as NPO, of PBTs.

For more information contact: Michael DiGiore, NJ DEP (609) 777-0518, michael.digiore@dep.state.nj.us.

**PROGRAM UPDATES**

**CONNECTICUT**

**Connecticut Department of Environmental Protection (CT DEP)**

**Organic Land Care DVD**

The Connecticut Department of Environmental Protection (CT DEP) hosted a “movie premiere” – to debut a special DVD that provides information for municipalities interested in learning more about organic land care. The ceremony was held on September 22, 2006 at Manchester Community College, which maintains five acres of campus property using organic land care. Local officials were invited, including chief elected officials, public works superintendents, and parks and recreation directors. Following this premiere, CT DEP will continue to distribute the DVD to each of the state’s 169 municipalities.

The short DVD explains what is meant by organic land care and describes the benefits and potential challenges of beginning organic land care. The DVD highlights the experience of two Connecticut towns implementing it on their playing fields, including on-location interviews with Cheshire’s Parks and Recreation Director and Granby’s Director of Public Works. The DVD also features footage from the University of Connecticut’s Research Farm where different fertilizer formulations are being tested.

The idea for the DVD came from the CT DEP’s interagency Pollution Prevention Workgroup. CT DEP’s Office of Pollution Prevention and Middlesex Community College’s Corporate Media Services Center produced it. The project was funded in part by a grant from the EPA. Technical assistance was provided by the Connecticut Chapter of the Northeast Organic Farming Association and the University of Connecticut Plant Science Department.

For further information contact: Judy Prill, CT DEP (860) 424-3694, judith.prill@po.state.ct.us.
Native Plant Garden

As part of the CT DEP’s efforts to lead by example, the headquarters of the CT DEP now showcases native, non-invasive plantings in the garden beds on either side of the front entrance at 79 Elm Street in Hartford. It is a small but important example of how to help preserve part of the state’s natural heritage. A plant species is considered native if it was present in a state or region before the arrival of European settlers. Most of the plants selected for the CT DEP gardens are native to New England and all are native to some part of the eastern United States.

The opportunity to plant the garden arose when building management removed English ivy, leaving only mulch in front of the building. The Pollution Prevention Work Group initiated the idea of planting a native garden. The group wanted the CT DEP’s landscape to be an example of a native planting in an urban setting, as well as being easy to maintain and interesting to the passer-by. There were a number of restrictions that had to be taken into account when choosing the plants, including shallow soil depth, a predominately shaded location, strong winter winds, no permanent irrigation system, and a limited budget. The plants that were selected share some common growing characteristics, satisfy the existing restrictions, and look attractive with each other in a somewhat naturalistic way.

To improve the site before planting, the group mixed compost into the existing soil with the help of the Knox Parks Green Crew. Compost adds organic matter, improving soil texture and providing essential nutrients to the plants. The group ordered the plants from a local nursery that carries many native species. When the plants arrived, a team of CT DEP volunteers were ready to plant, water, and add mulch to the garden. The mulch, which was 50 percent recycled brush and 50 percent pine bark, will minimize the need for weeding and help keep moisture in the soil.

For more information visit: http://www.dep.state.ct.us/whatsup/nativegarden.htm or contact Judy Prill, CT DEP (860) 424-3694.

Update on Solid Waste Management Plan

The draft of the Proposed Amendment to the Connecticut State Solid Waste Management Plan was completed in June after more than a year of hard work by CT DEP staff; R.W. Beck Associates; and the members of the External Stakeholder Committee. The Plan amendment addresses solid waste management issues affecting CT as well as many opportunities for pollution prevention. Information about the Plan was posted on the CT DEP website throughout the entire planning process. The next step was to give the public additional opportunities to learn about the Plan and provide input on the final document.

In July CT DEP sent out over 400 copies of the Plan on CD to state and local government officials, solid waste and recycling facilities, environmental organizations, and community groups. In addition, three informational meetings and three public hearings were held around the state in July and August. The CT DEP received over 70 written or oral comments about the Plan from the public and private sectors.

The comments to the draft Plan will be summarized in the Hearing Examiner’s Report to CT DEP Commissioner Gina McCarthy sometime this fall. If the Commissioner accepts the Report, the Proposed Amendment will be revised accordingly and adopted as the State Solid Waste Management Plan. The Plan will then serve as the basis for solid waste management planning and decision making for the short and long term future.

For more information visit: www.dep.state.ct.us/wst/solidw/swplan/index.htm or contact Tess Gutowski, CT DEP (860) 424-3096.
WEB RESOURCES

This section of the NE Assistance & P2 News lists useful web resources that are related to the topic of the Feature Article.

For more information contact: Andy Bray, NEWMOA (617)367-8558 x306, abray@newmoa.org.

Five Chemicals Alternatives Assessment Study
To download the full TURI report detailing the latest information about five toxic chemicals – perchloroethylene, formaldehyde, di(2-ethylhexyl)phthalate (DEHP), lead, and hexavalent chromium – or the 28-page Executive Summary visit: www.turi.org.

CleanerSolutions
The Toxics Use Reduction Institute (TURI) Laboratory helps companies find potentially safer alternatives to trichloroethylene (TCE) and other cleaning chemicals. To access TURI’s CleanerSolutions database and to learn about their laboratory services visit: www.turi.org and click on Laboratory.

P2 Infohouse
Search one of the nation’s largest collections of online P2 publications. Most of the publications from this database can be downloaded or printed. This database is maintained by the Waste Reduction Resource Center (WRRC), the P2Rx Center for the Southeast (EPA Region 4 states). Visit http://wrcc.p2pays.org/SearchRLIBY.asp and search their library for information on alternative chemicals and other P2 topics.

Design for the Environment
The Environmental Protection Agency’s Design for the Environment (DfE) program is one of Agency’s premier partnership programs, working with industry sectors to compare and improve the performance and human health and environmental risks and costs of existing and alternative products, processes, and practices. EPA’s DfE partnership projects promote integrating cleaner, cheaper, and smarter solutions into everyday business practices. Visit http://www.epa.gov/oppt/dfe/index.htm to learn more about DfE.

PBT Profiler
EPA has developed an evaluation tool, the PBT Profiler, which estimates environmental persistence (P), bioconcentration potential (B), and aquatic toxicity (T) of discrete chemicals based on their molecular structure. The PBT Profiler is a free web-based tool that may be valuable for those developing new chemicals or considering the use of chemicals. Visit http://www.epa.gov/pbt/tools/toolbox.htm for more information.
Maine Department of Environmental Protection (ME DEP)

The current activities of the Pollution Prevention Program in Maine Department of Environmental Protection's (DEP) Office of Innovation and Assistance (OIA) include:

- Implementing a state environmental certification program for the hospitality sector targeting hotels, motels, and inns. The initiative was launched in November of 2005, and currently there are 26 certified businesses in Maine. The P2 program has performed 30 site visits for this program making an average of 10 P2 recommendations at each facility. The staff has also made presentations at several tourism conferences and workshops.

- Assisting businesses and organizations with calculating their greenhouse gas emissions inventory as part of the Governor's Carbon Challenge.

- Managing the Clean Government Initiative to encourage toxics reduction, energy efficiency, and environmentally preferable procurement within Maine state government.

- Assisting five companies with the implementation of their environmental management systems.

- Conducting onsite compliance assistance utilizing Maine's Small Business Compliance Incentive Policy (SBCIP).

- Continuing to provide assistance to the Green Campus Consortium in their efforts to move towards sustainability.

- Working in conjunction with the Climate Change Steering Committee of the New England Governors' Conference and Eastern Canadian Premiers initiative to reduce greenhouse gas levels by 10 percent under 1990 levels by 2012.

- Continuing to provide assistance to a number of industry sectors.

- Revitalizing the Compliance Advisory Panel (CAP) as an effective tool to weigh in on OIA activities.

For more information contact: Peter Cooke, ME DEP (207) 287-7100.

Massachusetts Toxics Reduction Legislation Update

An Act Amending the Toxics Use Reduction Act (TURA) (Chapter 188 of the Acts of 2006) was passed by the Legislature and signed into law in July 2006. This legislation is the product of a months-long working group comprised of various interest groups. Updating TURA was a major priority for the TURA Program (including the Massachusetts Executive Office of Environmental Affairs, Massachusetts Office of Technical Assistance, Massachusetts Department of Environmental Protection, and Massachusetts Toxics Use Reduction Institute). Highlights of the legislation include:

- Exempts toxics present in fuel oil except if the facility is a power plant

- Changes the definition of “byproduct” to clarify that otherwise used chemicals should be counted as byproduct when they leave a production unit

- Adds use of North American Industrial Classification System (NAICS) codes consistent with the Toxics Release Inventory (TRI)
• Streamlines reporting by eliminating certain data elements from annual toxics use reports and biennial toxics use reduction (TUR) plans
• Harmonizes 10,000/25,000 pound thresholds with TRI (manufactured/processed no longer drops to 10,000 pounds)
• Replaces byproduct reduction index (BRI)/emissions reduction index (ERI)/base year calculations with new production unit metrics that measure progress from the previous year
• Provides alternative planning options after a company has completed one toxics use reduction plan and two plan updates:
  – Resource conservation plans for energy, water, or materials use (allowed every other planning cycle)
  – Environmental Management System (EMS) in lieu of a TUR plan (provided reportable toxics are addressed in the EMS)
• Establishes new TUR Planner continuing education requirements for resource management conservation and EMSs
• Provides process to categorize chemicals as either higher hazard (with lower 1,000 pound threshold) or lower hazard (with elimination of per chemical fee)
• Provides process to designate priority user segments that use higher hazard chemicals
• Provides process to re-examine inclusion of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) listed chemicals on toxics list

For more information contact: Rich Bizzozero, MA OTA (617) 626-1080; John Fischer, MA DEP (617) 292-5632; or Liz Harriman, TURI (508) 978-3387.

Massachusetts Department of Environmental Protection (MA DEP)

Massachusetts Mercury Bill
Massachusetts has joined the other New England states in regulating the use of products containing mercury. The bill, Chapter 190 of the Acts of 2006 will beef up Massachusetts’ program to reduce or eliminate mercury and other toxics through source reduction and waste prevention.

Mercury pollution accumulates in fish tissue over many years and poses a health risk if consumed by pregnant women, nursing mothers, or young children. High mercury levels in yellow perch and small-mouth bass are prevalent in northeastern Massachusetts water bodies, where the greatest concentrations of municipal waste combustion facilities in the state are located.

Through MA DEP’s ongoing efforts to reduce mercury pollution, air emissions have declined over the last decade from about 8,600 pounds per year (1995) to about 1,700 pounds per year (2002). In 1998, MA DEP required the state’s municipal waste combustors to reduce mercury emissions from the state’s municipal waste combustion facilities by 85 percent. In spite of this improvement, these facilities remain one of the state’s largest sources of mercury pollution, which comes from dozens of consumer and commercial products that contain mercury. When broken, these products can also release mercury and expose people directly.

The Massachusetts Mercury Management Act sets phased-in recycling targets of 90 percent for vehicle switches containing mercury and 70 percent for mercury-containing lamps (which include energy-efficient fluorescent lamps). Manufacturers are now setting up plans for these products to be collected and recycled.

Starting on October 1, 2006, all manufacturers who sell or distribute a product that contains “intentionally-added” mercury will need to notify MA DEP (through NEWMOA’s Interstate Mercury Education and Reduction Clearinghouse that has already been accepting mercury product notifications for several other states). Also beginning in October 2006, all Massachusetts schools are prohibited from purchasing mercury-containing products.

In May 2008 and 2009, specific mercury-containing products in Massachusetts will be removed entirely from the marketplace whenever viable non-mercury options exist — such as thermostats, medical and measuring instruments, switches, and relays. MA DEP has already begun outreach and educational efforts with affected businesses.

For more information contact: Sarah Weinstein, MA DEP (617) 574-6862, sarah.weinstein@state.ma.us.
Reduction in Mercury in Freshwater Fish

Five years of testing on large mouth bass and yellow perch in over a dozen lakes and ponds by Massachusetts Department of Environmental Protection (MA DEP) revealed encouraging news: the level of mercury in these species - although still too high - is declining, and this drop correlates with tighter regulatory controls on mercury pollution adopted by Massachusetts in recent years.

A potent toxin, mercury adversely affects people and wildlife, in particular the neurological system, kidneys, immune system, and cardiovascular system. The brain and developing neurological system of the fetus and children are particularly sensitive to mercury and can be damaged by fairly low levels of exposure.

Since 1999, the MA DEP Office of Research and Standards, with technical and analytical support from the Bureau of Resource Protection’s Watershed Group and the William X. Wall Experimental Station, has been testing the same subset of 17 lakes. The data reveal substantial reductions of mercury in fish tissue statewide, and the most significant reductions in the fish tissue were found in an area where the greatest reduction in mercury emissions occurred - the northeast region of Massachusetts.

While this recent news is encouraging, the sobering facts are these: based on data from MA DEP’s fish monitoring program, fish consumption advisories have been issued for over 100 specific water bodies in the state since the 1980s, and overall, about 50 percent of all tested water bodies have one or more species of fish with mercury concentrations that necessitate fish consumption advisories for the general population, including the sensitive subgroups of women of childbearing age, pregnant women, nursing mothers, and children.

Although substantial progress has been made, there is clearly further work to be done. Massachusetts and the region as a whole remain committed to continued implementation of mercury reduction efforts under the Massachusetts Zero Mercury Strategy and the New England Governors’-Eastern Canadian Premiers’ Mercury Action Plan.

For more information visit: http://mass.gov/dep/toxics/stypes/hgres.htm click on “Toxic Effects of Mercury” and http://db.state.ma.us/dph/fishadvisory/ for the Public Health Fish Consumption Advisory.

First-In-The-Nation Perchlorate Standard

Massachusetts became the first state in the nation to promulgate drinking water and waste site cleanup standards for perchlorate, setting the standard at 2 parts per billion (ppb). The new regulations require most public water systems to regularly test for perchlorate.

The new standards were adopted to protect public health, including sensitive populations, such as pregnant women, nursing mothers, infants, and individuals with low levels of thyroid hormones. Perchlorate has been found to interfere with thyroid function, which could lead to impaired human development and metabolism.

Perchlorate is a chemical that can be found in blasting agents, such as fireworks, military munitions, and other manufacturing processes, and can be generated in small amounts within existing water treatment processes. No federal standards regulating perchlorate levels in drinking water currently exist.

Besides the requirement for regular testing, the new regulations also require parties responsible for perchlorate contamination to notify MA DEP of the contamination and conduct appropriate environmental assessment and cleanup and for all drinking water supplies to contain no more than 2 ppb of perchlorate.
Since perchlorate was first detected in the aquifer under Bourne, MA in 2002, the chemical has been detected in 10 other public water systems across the state.

For more information visit: http://mass.gov/dep/water/drinking/percinfo.htm.

**Massachusetts Office of Technical Assistance (MA OTA)**

**Program Evaluation**

Massachusetts Office of Technical Assistance (MA OTA) recently released the results of a two-year study using new methods to analyze Toxics Use Reduction Act (TURA) data to assess the impact of its on-site assistance services. The study revealed that companies visited by MA OTA performed better than companies not visited on nearly every measure examined. An independent study by Boston University researchers also found strong indications of MA OTA effectiveness.

For more information visit: http://www.mass.gov/envir/ota/publications/tech_reports.htm or contact Rick Reibstein (MA OTA) (617) 626-1062.

**Center for Cleaner Technology**

MA OTA is in the process of creating a Center for Cleaner Technology in Central Massachusetts, which will be dedicated to the demonstration and development of technologies that manufacturing industries may use to reduce environmental, health, and safety impacts, and increase competitive advantages. The Center will also promote the availability and adoption of such technologies, which are critical to the realization of a sustainable economy.

For more information contact: Paul Richard, MA OTA (617) 626-1042.

**Nanotechnology & the Massachusetts Textile Industry**

Textile manufacturing in Massachusetts has become somewhat of a niche market in recent years. Using nanotechnology to develop specialty fibers may be the wave of the future for the industry. The US Army Soldiers Center in Natick, MA is in the process of creating textile products using nanotechnology that may be effective alternatives to traditional fibers.

For more information contact: Augustus Ogunbameru, MA OTA (617) 626-1065.

**Guidelines for the Medical Device Industry Sector**

MA OTA will soon release a Design for the Environment (DfE) compliance guideline for the medical device industry. The guide is a result of MA OTA's focus group discussions, which identified needs for the industry. While MA OTA is targeting small and medium-sized manufacturers of medical devices, larger companies may also find the guide useful as a resource and a tool for their engineering staff.

For more information contact: John Raschko, MA OTA (617) 626-1093.

**Massachusetts Toxics Use Reduction Institute (MA TURI)**

**Champions of Toxics Use Reduction Honored**

The Massachusetts Toxics Use Reduction Institute (MA TURI) presented nine Massachusetts organizations and individuals with 2006 Champions of Toxics Use Reduction Awards in June. The following leaders were recognized for using innovative and collaborative approaches to reduce toxic chemical use throughout Massachusetts:

- **Vicor Corporation** in Andover found safer alternatives to lead and hexavalent chromium used in manufacturing and shared their competitive strategies with over 50 Massachusetts companies through the TURI Demo Site Program.

- **Ceramics Processing Systems** in Norton replaced a triple acid bath used for cleaning parts with a safer and more economical solution found by the TURI Laboratory.

- Two Toxics Use Reduction Planners were honored for exemplary service — William Judd, Project Manager at Irwin Engineers, Inc., located in Natick, MA, and Tim Woycik, Principal Environmental Auditor at National Grid in Westboro, MA.

- Three community projects funded through the TURI Community Grant Program focused on reducing pesticide use and finding safer cleaning products and techniques.
  - **The Town of Westford Water Department** raised awareness about the effect of pesticide use on water supplies and safer ways to care for lawns.
The Center for Healthy Homes and Neighborhoods at Boston University educated residents in Boston, Cambridge, and Waltham housing authorities about how to repel pests in a safe way.

The Regional Environmental Council in Worcester educated janitors about the effects of toxic chemicals found in conventional cleaning products and safer alternatives.

David Williams, Chair of the TURA Science Advisory Board (SAB) and Lawrence Boise, Vice Chair of the TURA SAB, have been providing scientific expertise on a volunteer basis to the TURA Program for more than a decade.

For more information visit: www.turi.org.

A Successful Transition to Lead-Free

An August 2006 article on transitioning to lead-free was co-authored by TURI staff and published in the most recent SMT Magazine. The article documents the positive test results of an actual implementation of lead-free printed wiring board for Mercury Computer Systems. Lead-free materials were used for the board surface finish, solder paste, and component finish. Long-term reliability testing for the lead-free printed wiring board is now being conducted.

For more information visit: http://smt.pennnet.com/home.cfm.

New Hampshire Department of Environmental Services (NH DES)

36 Pounds of Mercury Reduced Annually from Dentists

Since November 2005, New Hampshire has required the owners of dental practices to install an International Standards Organization (ISO) 11143-approved amalgam separator or equivalent and to properly manage the amalgam waste trapped by the separator. The owner must provide the New Hampshire Department of Environmental Services (NH DES) with a written self-certification form for separator installation and listing dental providers at their practice but allows for an exemption for oral specialists who do not generate amalgam wastes. According to the NH Board of Dental Examiners, there are 1,261 NH licensed dentists. As of August 2006, the current status of amalgam separator installation is: 49 percent of dentists installed separators; 12 percent of dentists are retired or work in another state; 9 percent of dentists have specialties that are exempt from the requirement; and 29 percent have failed to submit the certification form. NH DES estimates that the program will result in a more than 36-pound reduction of mercury in wastewater and wastewater sludge annually.


P2 Internship Program

Since 1994, the University of New Hampshire (UNH) and New Hampshire Pollution Prevention Program (NHPPP) have teamed chemical engineering students with manufacturing facilities in New England to promote pollution prevention projects and opportunities. Many facilities have ideas to improve efficiency and reduce waste, but lack the resources to research and test those ideas. The P2 intern is a great resource to accomplish those goals. During this summer, five interns saved their sponsoring facilities a combined potential saving of...
$150,000 in energy costs, acetone recovery, metal dust recycling, and hazardous waste reductions. This year, the P2 Internship was awarded the Most Valuable Pollution Prevention Honorable Mention Award from the National Pollution Prevention Roundtable. This is the second time this program has received recognition.

For more information visit: http://www.des.nh.gov/nhppp/nh01006.htm.

**Green State Fleet Project**
Governor's Executive Order 2005-4 calls for a 10 percent energy use reduction across all State agencies. As part of this initiative, the New Hampshire Pollution Prevention Program (NHPPP) is conducting the Green State Fleet Project with a supporting goal of 10 percent fuel efficiency increase and 10 percent in emissions reductions in state agencies’ fleets. In 2005, NHPPP and Department of Administrative Services developed a new vehicle purchase policy that requires minimum fuel standards for all new vehicles. In March 2006, the first report on new vehicle purchases was provided to NHPPP. Each new vehicle purchase was accompanied by the surplus of an older, less efficient vehicle.

During August 31, 2005 until March 31, 2006, when the State's new vehicle purchase contracts expired, 56 older vehicles were replaced with new vehicles. On a yearly basis and driving equal miles as the older cars, the 56 new cars will provide reductions of: 41,702 pounds of CO\(_2\); 422 pounds of CO; 12 pounds of NOx; 223 pounds of particulates; and 15 pounds of hydrocarbons.

Although the new vehicles purchased have improved fuel efficiency, budget constraints precluded the purchase of highly-efficient hybrid vehicles like the Toyota Prius and Honda Insight. Further, the policy was only in effect for seven months after which state agencies were free to purchase any vehicle, regardless of efficiency. The NH Department of Administrative Services is presently formulating new contracts but will continue to implement the fuel efficiency requirements once they are in place.

For more information contact: Sara Johnson, NH DES (603) 271-6460, sjohnson@des.state.nh.us.

**Solid Waste & Environmental Management Planning (SWEMP)**
NHPPP and Innovations staff are participating in the University of New Hampshire's (UNH) effort to minimize waste through an Environmental Management System (EMS) approach, called Solid Waste and Environmental Management Planning or SWEMP. In Phase 1 the group worked to identify priority waste streams, including radiological, infectious, chemical, and agricultural. At a recent meeting of the SWEMP Task Force UNH staff provided an update on efforts to reduce these and other waste streams from the 2004 baseline years. Results include an impressive 50 percent reduction in infectious waste and a 10 percent reduction in regulated hazardous wastes. In addition there have been significant increases in recycling rates for various products, such as paper and fluorescent lamps and other universal wastes.

For more information contact: Sara Johnson, NH DES (603) 271-6460, sjohnson@des.state.nh.us.

**Promoting Higher Levels of Environmental Performance**
NH DES recognizes that the environmental, economic, and social health of the state and the nation, depend on improved environmental performance. However, NH DES has the authority to force behavior up to the statutory and regulatory minimums, but the Agency has the opportunity and the need to encourage achievement of results beyond these minimums.

To reach for this goal, NH DES received a three-year grant from EPA’s State Innovation Grant program that includes several key tasks. NH DES will work with colleges to include environmental issues in business curricula, provide training in environmental management for private and public sector organizations, establish specific strategies for small businesses, and search for a way to use the “bully pulpit” of the state government to recognize, and perhaps reward, within a legal framework, organizations that perform above and beyond the minimums.

For more information contact: Sara Johnson, NH DES (603) 271-6460, sjohnson@des.state.nh.us.
New Jersey Department of Environmental Protection (NJ DEP)

Delegation from Brazil

On September 19, 2006, the Pollution Prevention Program hosted a delegation from the State of Sao Paulo, Brazil, the largest State in Brazil. The delegation was from the pollution prevention (P2) element of the Company of Environmental Sanitation Technology (Cetesb). Cetesb is the organization linked to the government of Sao Paulo responsible for the evaluation, prevention, and control of environmental pollution, as well as the execution of scientific and technological services directly or indirectly related to its field of action. Linked to the State’s Secretary of the Environment, it constitutes a mixed economy partnership divided in 31 units located in the State’s main cities.

Currently, they have a voluntary P2 program whereby they attempt to encourage industries to reduce pollution at the source. They are interested in developing a more robust program and wanted to learn about the New Jersey experience. They were particularly interested in how the NJ DEP collects, manages, and utilizes data. The P2 Technical Assistance Program located at Rutgers University also participated in the meeting.

A representative from the New Jersey P2 program was invited to attend a workshop in Sao Paulo in November to assist and learn about their program development.

For more information contact: Michael DiGiore, NJ DEP (609) 777-0518; Michael.digiore@dep.state.nj.us.

New York State Department of Environmental Conservation (NYS DEC)

Reducing Mercury in Schools

The New York State Department of Environmental Conservation (NYS DEC), in conjunction with staff from the Northeast Waste Management Officials’ Association (NEWMOA) conducted five, half-day workshops in Syracuse, Rochester, Albany, New York City, and Long Island from November 2005 to February 2006. The goal of these workshops was to promote the elimination of mercury in schools. This goal was achieved through educational outreach to school administrators, science teachers, health and safety coordinators, building and grounds personnel, and school nurses on how to identify, inventory, collect, and remove/recycle elemental mercury and mercury-containing items from their schools. The workshops also included discussion about the health hazards associated with mercury exposure, what to do in the event of a mercury spill, New York State mercury legislation, and how to go about replacing mercury-containing items with mercury-free alternatives.

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For more information contact: Michael DiGiore, NYS DEC (601) 741-0300; Michael.digiore@dec.ny.gov.
containing items with mercury-free alternatives. Informational handouts, brochures, a mercury inventory chart, and a poster called “Mean, Mad Mercury” was produced and distributed at these workshops as a classroom aid to promote awareness of the hazards of mercury. The poster was also published in Spanish, “Mercurio, Loco, Loco” for distribution. One hundred and three (103) people attended the workshops, representing 2,065 schools.

As a result of these workshops and a demonstration project that was held in schools in the Albany area and in schools in the Rochester school district over 600 pounds of mercury was removed as follows:

- Rochester & Monroe County Schools (14 School Districts with 170 schools) – 225 pounds of mercury removed
- Albany City Schools & Albany County Schools (9 schools) – 376 pounds of mercury removed

Additional activities are currently underway to remove mercury in the following areas of the state: Syracuse, Long Island, and New York City.

Fifteen additional workshops are currently in the planning stages and provide a sweep of the entire state. The first of these are being scheduled for later in September and will cover school districts located in Niagara, Orleans, Erie, Chautauqua, and Allegany counties.

For more information contact: Deborah Knight, NYS DEC (518) 402-9469, djknight@gw.dec.state.ny.us.

**Green Cleaning**

NYS DEC staff assisted the NYS Office of General Services (OGS) in developing guidelines for selecting environmentally friendly cleaning products that have comparable or superior cleaning effectiveness to those that are presently used. The NYS Office of General Services Environmental Services has posted relevant materials on its website, including the official guidelines for green cleaning at schools and a list of approved green products. In addition, the webpage includes a link to all the questions posted during the public comment period and the responses from the workgroup.

For more information visit: http://www.ogs.state.ny.us/bldgadmin/environmental/default.html or contact Carlos Montes, NYS DEC (518) 402-9469, clmontes@gw.dec.state.ny.us.

**Pollution Prevention Law**

The NY P2 law promotes the concept of pollution prevention and mandates an increase in pollution prevention and environmental compliance assistance, including on-site technical assistance to small businesses. The law also requires a Pollution Prevention and Environmental Assistance Coordinating Council (Council) to be convened. The Council has convened, has prepared By-Laws, and has also prepared an interagency integrated work plan. The Council is currently meeting with Trade Associations to seek their assistance in developing direction and priorities for Council outreach programs and assistance activities.

For more information contact: Dennis Lucia, NYS DEC (518) 402-9469, djlucia@gw.dec.state.ny.us.

**Environmental Leaders Program**

Progress continues on the development of the New York Environmental Leaders program (similar to EPA’s Performance Track Program). The policy that establishes the program is currently with the Commissioner for consideration.

For more information contact: John Vana, NYS DEC (518) 402-9469, jmvana@gw.dec.state.ny.us.

**Environmental Excellence Awards**

Thirty-four applications were received for consideration for the 2006 New York Environmental Excellence Awards (EEA) program. The applications have undergone technical and compliance reviews, and 18 applications are being sent to the External Review Committee (ERC) for consideration. The ERC is broken into three teams, and each team reviews each application and develops recommendations independent of the other teams. The three teams then join for one final session to develop the final list of applicants to be sent to the Commissioner for possible award. ERC work group review sessions have been planned and will be held in various locations during September. The final ERC review is scheduled for October and plans are currently to hold an awards ceremony in early December.

For more information contact: Marna Poslusny, NYS DEC (518) 402-9469, maposlus@gw.dec.state.ny.us.
New York City Department of Environmental Protection (NYC DEP)

P2 for Auto Body Shops

The New York City Department of Environmental Protection’s (NYC DEP) Bureau of Environmental Compliance, Environmental Economic Development Assistance Unit (EEDAU), was awarded a $20,000 grant from the KeySpan Ravenswood Community Impact Fund. This fund is a community benefit project under KeySpan’s public interest agreement relating to the construction and operation of a 250 megawatt gas-fired electric and steam cogeneration facility on the Ravenswood generating station site in Queens County. The Fund, held in the name of the New York City Economic Development Corporation (NYCEDC), provides funding for several community or environmental improvement projects in the area served by Queens Community Board No 1.

The EEDAU and the Queens Economic Development Corporation (QEDC) will be administering a pollution prevention rebate program under the KeySpan Ravenswood Fund for auto body (refinishing) shops in the Community Board 1 district of western Queens. This program will provide financing for the purchase of dust-free sanding (DFS) systems and high volume, low pressure (HVLP) paint spray guns. It is also being sponsored by the NYCEDC and the Queens Borough President’s Office. A kick-off meeting for potential auto body shop participants was held on August 24, and an additional informational meeting was conducted on September 28. These meetings will be followed by two training workshops led by technicians from the companies that supply the dust-free sanding (DFS) systems and the HVLP paint spray guns to be held in October.

The program will provide rebates of up to 50 percent of the cost of each approved DFS system and up to $500 for each approved HVLP spray gun that is purchased. Dust-free sanding (DFS) systems are used to collect harmful sanded-waste, dust, or particulates (including fine particulates) that are created during the “sanding” of automobiles (removal of scratches, filling-in of dents, etc.), and can prevent up to 90 percent of these emissions from being released into the workspace and surrounding communities. DFS systems can insure that body shops are in compliance with Occupational Safety and Health Administration (OSHA) permissible exposure limits (PEL) for total dust, and pursuant to any manufacturer’s specifications and in accordance with any customary and reasonable safety practices. In addition, DFS systems enable auto body shops to save on clean-up, paint, and material costs.

HVLP spray guns are used to provide a high quality paint finish to various products, such as vehicles and furniture, and use approximately 25 percent less paint, and emit approximately 25 percent fewer volatile organic compounds (VOCs) and 50 percent fewer particulates than conventional spray guns. Based on paint savings alone, trade representatives have stated that HVLP spray equipment pays for itself within a few months of purchase.

A similar rebate program for HVLP spray guns was successfully launched in the spring of 2004 in the Bronx with the financial support of the Bronx Overall Economic Development Corporation. The program’s financial incentives allowed eligible shops (those with up-to-date permits) to meet changes to regulation, Part 228, Surface Coating Processes, which became effective January 2005. This revision requires paint application equipment to have higher transfer efficiency than conventional spray guns, thus reducing solvent emissions and improving air quality. Under the NYC DEP program 14 Bronx-based auto body shops were awarded rebates for a total of 40 low-emission HVLP (or equivalent technology approved by NYS DEC) spray guns. The installation and usage of these emission-reducing spray guns by Bronx participants has resulted in significant decreases in VOC emissions. (The final report on data collection is near completion.) The Bronx HVLP program offered two (mandatory) training sessions for participants on the optimal use of the HVLP equipment.

The pollution prevention rebate program is being marketed aggressively by NYC DEP and QEDC, and includes direct mailings, telephone calls, site visits, and the help of the shops. The goal is to ensure maximum participation from the auto body shops in the Community Board No. 1 district and the reduction of emissions in order to help improve the air quality in western Queens.

For more information contact: NYC DEP’s Environmental Economic Development Assistance Unit (EEDAU) (718) 595-4454 or 4541.
NEW PUBLICATIONS & EDUCATIONAL MATERIALS

The following is a list of new publications and other educational resources available online.

Pollution Prevention Produces Results: Waste Reductions, Resource Conservation, and Cost Savings, An Aggregation of State Pollution Prevention Results from 2001-2003

Recent report by the National Pollution Prevention Roundtable (NPPR)


The Effect of Providing On-site Technical Assistance for Toxics Use Reduction: A Program Evaluation Utilizing Toxics Use Reduction Act Data

Massachusetts Office of Technical Assistance (MA OTA) has released the results of a two-year study using new methods to analyze Toxics Use Reduction Act data to assess the impact of onsite-assistance services.

http://www.mass.gov/envir/ota/publications/tech_reports.htm

GreenList™ Bulletin

To stay current on such topics as new P2 technologies, policies, regulations, toxics, health information, and management tools sign up for the Massachusetts Toxics Use Reduction Institute (TURI) GreenList Bulletin, which is now available in three formats – sent via a weekly email, posted at www.turi.org, and available as a feed for those who use a newsfeed aggregator. The Bulletin includes no more than 10 abstracts of recent reports, journal articles, websites, and books. To sign up for the weekly email contact: Jan Hutchins, MA TURI, Hutchins@turi.org.


NH Motor Vehicle Removal & Checklist Label

http://www.des.nh.gov/SW/Greenyards/label_checklist_final.doc

NH Spill Prevention Control & Countermeasure Plan Template for Salvage Yards

http://www.des.nh.gov/SW/Greenyards/SPCC_salvage_yard2.doc

Updated Massachusetts Guide to Amalgam Separator Vendors for Dental Clinics

http://www.mass.gov/dep/service/separato.htm

Revised Massachusetts Dental Mercury Webpage

http://www.mass.gov/dep/service/dentists.htm

Massachusetts Fish Tissue Studies: Long-Term Monitoring Results

http://www.mass.gov/dep/toxics/stypes/hgres.htm#monitoring

Directory of Massachusetts Toxics Use Reduction Planners

http://www.mass.gov/dep/toxics/planners.htm

Massachusetts Resources for Recycling & Composting Businesses

http://www.mass.gov/dep/recycle/reduce/mktdev.htm
RHODE ISLAND

Rhode Island Department of Environmental Management (RI DEM)

Hazardous Waste for Auto Body & Auto Salvage Yards

Rhode Island Department of Environmental Management (RI DEM) and the Narragansett Bay Commission (NBC) jointly sponsored a workshop for operators of auto body and auto salvage yard facilities in Rhode Island. The workshop was held at the Community College of Rhode Island on June 21 with 60 people attending representing 47 facilities.

The workshop concentrated on topics relating to accumulating and storing hazardous waste, with detailed discussion on satellite, or work station accumulation requirements, and 90-day storage requirements. RI DEM staff had found a need to provide information and training in both of these areas, when performing inspections and audits in the auto body sector. Because of similar issues in both the auto body and auto salvage sectors, the training was offered to facility operators in both sectors. The main speaker was a RI DEM hazardous waste inspector, who was able to present information relevant to these sectors, as well as the experiences of an inspector.

After reviewing surveys completed by persons attending, it appears that workshop was well received and considered helpful and informative.

For more information contact: Thomas E. Armstrong, RI DEM (401) 222-4700 x4412, Thomas.armstrong@dem.ri.gov.

Auto Body Repair Facilities Certification

RI DEM completed its second round of self-certification under its Auto Body Repair Facilities Certification Program. Participation in this program is voluntary, and facilities certified to compliance with hazardous waste, air pollution, and water pollution environmental regulations, and Occupational Safety and Health Action (OSHA) regulations.

Since the first certification took place in 2003, the number of auto body repair facilities licensed by the Rhode Island Department of Business Regulation, with the license required by law to operate, declined 8.5 percent from 367 to 336 facilities. To date, 43 percent of these facilities responded, with other facilities requesting short term extensions to complete certification.

For more information visit: http://www.dem.ri.gov/programs/benviron/assist/abdycert/abdycert.htm.

NEW PUBLICATIONS & EDUCATIONAL MATERIALS (continued)

Massachusetts Supermarket Organics Recycling
http://www.mass.gov/dep/recycle/supermkt.htm

How to Hold a College Reuse and Recycling Event
http://www.mass.gov/dep/recycle/reduce/kidsteac.htm#college

Improving Environmental Conditions in Massachusetts Schools
http://www.mass.gov/dep/service/schools.htm

10 Tips for Replacing Trichloroethylene (TCE)
http://www.turi.org/content/content/view/full/1655/

10 Tips for a Healthy, Pesticide-free Lawn
www.turi.org

10 Tips for Finding Safer Cleaners
http://www.turi.org/content/content/view/full/3603/
Underground Storage Tank Alternative Inspections

RI DEM was recently selected for an EPA Innovation Program grant to evaluate inspection alternatives for underground storage tanks. The grant is expected to be awarded soon.

RI DEM will work with the Florida Department of Environmental Protection (FL DEP) and EPA to assess whether an Environmental Results Program (ERP) approach to the Underground Storage Tank (UST) sector can be as effective, or more effective, than traditional enforcement programs in achieving regulatory compliance. The project will compare the costs and benefits of each approach.

The project will provide data to help EPA respond to the Energy Policy Act of 2005 (the Energy Act), which calls for a broad study of alternatives to traditional enforcement.

The RI DEM and FL DEP team allows a rather unique comparison to take place. Rhode Island is the only state that currently has an active UST ERP program in place. Florida has one of the oldest UST inspection and enforcement databases in the country. Another goal of the project is to examine the transferability of ERP to other states as an alternative inspection/compliance program, and to provide critical data and data analysis to enhance other states’ interest in implementing ERPs.

For more information contact: Thomas E. Armstrong, RI DEM (401) 222-4700 x4412, Thomas.armstrong@dem.ri.gov.

Clean Marina Program

The Rhode Island Coastal Resources Management Council (CRMC) developed a Rhode Island Clean Marina Program, with RI DEM, the RI Marine Trades Association, Save the Bay, and EPA. As part of the effort to introduce the program to marina operators, a Clean Marina Workshop was held on September 7 at the University of Rhode Island (URI) Narragansett Bay Campus, with 75 marina operators and employees attending. In addition to presenting information on the program, the session focused on the applicability of RCRA to the Clean Marina Program. Presentations were made by RI DEM, EPA Region 1-New England, and CRMC staff.

For more information visit: http://www.dem.ri.gov/programs/benviron/assist/extlead/index.htm.

Exterior Lead Paint Removal Certification

The Exterior Lead Paint Removal Certification Program continues with 40 contractors, who remove exterior lead-based, now participating in this voluntary program.

RI DEM staff is participating in a Quality Control Workgroup with representatives from the RI Department of Health, the RI Housing Resources Commission, the RI Childhood Lead Action Project, and the Community College of Rhode Island to review the inspection and training processes associated with the Rhode Island Lead Hazard Mitigation Law, with the goal of reviewing current practices, and making recommendations to improve the processes.

For more information visit: http://www.dem.ri.gov/programs/benviron/assist/extlead/index.htm.
Vermont Department of Environmental Conservation (VT DEC)

Greening Up Your Bottom Line Conference
A statewide business environmental conference, entitled Greening Up Your Bottom Line, was held on September 19, 2006. Topics included energy efficiency, green marketing and reporting, environmentally preferable purchasing, and greening the corporate culture. The conference was expected to attract close to 200 participants and is co-sponsored and planned by businesses, non-profit corporations, Vermont Department of Environmental Conservation (VT DEC), and the Vermont Small Business Development Center.

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

Mercury Education & Reduction
VT DEC is implementing mercury auto switch removal legislation that was signed into law in 2006 and takes effect January 1, 2007. The legislation does not include a switch bounty. VT DEC has developed a more accurate list of in-state auto dismantlers and auto salvage yards. A contractor will be hired to assist in outreach, education, and monitoring participation in the program.

VT DEC has expanded fluorescent lamp recycling to ACE Hardware stores in addition to True Value hardware stores and now has a total of 63 stores statewide providing lamp recycling to homeowners and small businesses.

The VT DEC has finalized the Dental Best Management Practices. They address dental amalgam waste handling, hazardous waste handling, and a requirement for installation of amalgam separators. Dental practices will be required to self-certify to the Department every other year on compliance with the BMPs. VT DEC attended the annual VT Dental Society meeting in September to provide information to dental practices on the new requirements.

Button cell battery collection centers have been established at nearly 100 pharmacies and 20 nursing homes across state. This initiative was created to address a large source of button cell batteries used in hearing aids and other medical devices.

For more information visit: www.mercvt.org.

Conditionally Exempt Generator Workshops
Regulatory compliance and P2 workshops for conditionally exempt generators are scheduled to be held in St. Johnsbury, Manchester, Middlebury, Williston, Springfield, and Montpelier in September and October 2006. These workshops remain popular and have been repeated for several years.

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

Vehicle Service Outreach
VT DEC’s vehicle service and repair guide for compliance and pollution prevention has been revised and reprinted. A series of 12 workshops for vehicle businesses and fleets will be held in the coming year, with two workshops this fall in November and December 2006 and ten additional workshops in the spring 2007.

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

Vermont Business Environmental Partnership
VT DEC’s voluntary environmental business recognition and assistance program now has 30 Environmental Partners that have achieved environmental management standards, including two that have achieved the higher tier of Environmental Leader. Radio and newsprint advertising has been successful at raising business awareness of the program.

For more information visit: www.vbep.org.
EPA REGION 1 - NEW ENGLAND

Trichloroethylene (TCE) Alternatives Project
As part of its Trichloroethylene (TCE) Alternatives Project, EPA Region 1-New England staff is conducting site visits to Providence, RI facilities that use TCE as a degreasing solvent. Rhode Island Department of Environmental Management (RI DEM) identified the targeted facilities, most of which are military contractors or remnants of the once thriving jewelry industry. To identify an alternative cleaning solution, samples of the oil, grease, and/or polishing compounds are collected from the facilities and sent to the Surface Solutions Cleaning Lab (SSL) at the University of Massachusetts-Lowell for evaluation. A hands-on cleaning workshop is being scheduled for the end of September to demonstrate the cleaning potential of these alternative products.

For more information contact: Linda Darveau, EPA Region 1-New England (617) 918-1718, darveau.linda@epa.gov.

SmartWay Transport Partnership
The SmartWay Transport Partnership is a voluntary collaboration between EPA and the freight industry to conserve fuel and reduce greenhouse gas emissions. The Partnership “makes the business case” for how companies shipping products, and the truck and rail carriers delivering these products, can improve their environmental profile while saving money and time. Fleets choose from a wide variety of strategies to minimize idle time, reduce rolling resistance, improve aerodynamics, and/or improve logistics and driver skills. Shippers participate by increasing the proportion of their product carried by SmartWay carrier partners, and also by improving on-dock efficiency and logistics.

Fleets choose from a wide variety of strategies to minimize idle time, reduce rolling resistance, improve aerodynamics, and/or improve logistics and driver skills. Shippers participate by increasing the proportion of their product carried by SmartWay carrier partners, and also by improving on-dock efficiency and logistics. The program just passed its second anniversary with about 450 partners in 41 states, including major shippers such as IKEA, Nike, Canon, and Home Depot, and about half of the top 100 for-hire carriers. But SmartWay is not only for huge corporations—many small carriers and locally-known shippers are also partners.

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

Community Action for a Renewed Environment (CARE)
EPA Region 1-New England is working with the New Haven Community Action for Renewed Environment (CARE) workgroup to assist manufacturers with the implementation of Lean and Clean reviews. The first reviews are scheduled for October 2006. CARE is a community-based, community driven, multimedia demonstration program designed to help communities understand and reduce risks due to toxics and environmental pollutants from all sources.

For more information contact: Linda Darveau, EPA Region 1-New England (617) 918-1718, darveau.linda@epa.gov.
The US EPA Office of Prevention, Pesticides, and Toxic Substances (OPPTS) is cooperating with Northeast Waste Management Officials’ Association (NEWMOA) to hold a national conference to increase awareness of the available data sources involving High Production Volume (HPV) chemicals, such as the HPV Information System and others. The conference will take place December 12-14, 2006 at the Radisson Hotel in Austin, TX.

The goals of the conference are to:
- Educate stakeholders about the EPA High Production Volume Challenge Program and other sources of chemical toxicity and environmental information.
- Share experiences of key stakeholders about the uses of data made available by the EPA HPV Challenge Program and other data sources.
- Develop ideas on how to make sources of HPV chemicals information and other data user-friendly, accessible, and relevant to a diverse audience.

Conference participants will include:
- federal, state, tribal, and local environmental and public health officials from the US and other countries,
- academic researchers,
- non-governmental and community organizations,
- industry representatives, and
- labor organization representatives.

Conference co-sponsors:
- Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
- Commission on Environmental Cooperation (CEC)
- Environmental Council of the States (ECOS)
- Lowell Center for Sustainable Production (LCSP)
- National Pollution Prevention Roundtable (NPPR)

For more information visit: www.newmoa.org/hpv.

First U.S. Conference on
Characterizing Chemicals in Commerce:
Using Data on High Production Volume (HPV) Chemicals

Exchanging Ideas and Information
P2 Results Aggregation Tool
NEWMOA is hosting a Regional Aggregation Module of the Pollution Prevention Measurement Aggregation Tool on its websites to collect validated pollution prevention data from state and local government programs in the Northeast. The Module is designed to collect readily available data on waste reduction and resource efficiency efforts from public agencies in the region.

The data collected will help demonstrate the activities of agencies, as well as the positive changes of their clients as a result of their activities. In addition, the data will help quantify P2 progress related to air, water, waste, and energy resources. This model is also designed to translate P2 progress into the context of bigger-picture issues, such as climate change, habitat, and sustainability.

The data collected will help demonstrate the activities of agencies, as well as the positive changes of their clients as a result of their activities. In addition, the data will help quantify P2 progress related to air, water, waste, and energy resources.

For more information contact: Andy Bray, NEWMOA (617) 367-8558 x306, abray@newmoa.org.

Northeast Assistance & P2 News
Seeks to Reduce Paper Waste
As a way to save paper and printing costs, NEWMOA would like to transition readers of this newsletter to electronic distribution, where appropriate and desirable. Currently NEWMOA distributes the newsletter via an email to about 75 recipients and sends out at least 1,300 in hard copy. To receive the newsletter via email, please use the form on the back of this newsletter, or send an email to lmakina@newmoa.org requesting a change in the delivery method and indicating the email address to use.

Thanks for helping to reduce paper waste!
## NORTHEAST ASSISTANCE & P2 CALENDAR

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<th>CONTACT</th>
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<tbody>
<tr>
<td>Alternative Heating Systems for Business</td>
<td>NH WasteCAP</td>
<td>October 16; Concord, NH</td>
<td><a href="http://www.nhiof.org">www.nhiof.org</a></td>
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<tr>
<td>The North American Electronic Recycling Conference</td>
<td>IERI</td>
<td>October 18-19; Austin, TX</td>
<td><a href="http://www.e-scrapnews.com/">www.e-scrapnews.com/</a></td>
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<td>National Recycling Coalition 25th Annual Congress &amp; Exhibition</td>
<td>NRC</td>
<td>October 22-25; Atlanta, GA</td>
<td><a href="http://www.nrc-recycle.org">www.nrc-recycle.org</a></td>
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<td>Environmentally Preferable Products (EPP) Vendor Fair &amp; Conference</td>
<td>MA OSD</td>
<td>October 25; Worcester, MA</td>
<td><a href="http://www.mass.gov/eppfair">www.mass.gov/eppfair</a></td>
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<td>NERC Fall Conference</td>
<td>NERC</td>
<td>October 25-26; Northampton, MA</td>
<td><a href="http://www.nerc.org">www.nerc.org</a></td>
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<td>Compressed Air System Efficiency</td>
<td>NH WasteCAP</td>
<td>October 31; Hampton, NH</td>
<td><a href="http://www.nhiof.org">www.nhiof.org</a></td>
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<tr>
<td>The Audit Process: What to Expect</td>
<td>NH WasteCAP</td>
<td>October 31; Hampton, NH</td>
<td><a href="http://www.nhiof.org">www.nhiof.org</a></td>
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<tr>
<td>Forum for a Sustainable Future</td>
<td>ECOS &amp; DOD</td>
<td>November 1-2; San Diego, CA</td>
<td><a href="http://www.ecos.org">www.ecos.org</a></td>
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<tr>
<td>Toxics Use Reduction Planners Continuing Education Conference</td>
<td>TURI</td>
<td>November 9; Marlborough, MA</td>
<td><a href="http://www.turi.org">www.turi.org</a></td>
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<tr>
<td>Cellulosic Ethanol Summit</td>
<td>U.S. DOE</td>
<td>November 13-15; Washington, DC</td>
<td><a href="http://www.infocastinc.com/cell06.html">www.infocastinc.com/cell06.html</a></td>
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<tr>
<td>2006 Great Lakes Pollution Prevention Roundtable Fall Conference</td>
<td>GLRPPR</td>
<td>November 15-16; Chicago, IL</td>
<td><a href="http://www.glrppr.org">www.glrppr.org</a></td>
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<td>2006 National Environmental Public Health Conference</td>
<td>CDC</td>
<td>December 4-6; Atlanta, GA</td>
<td><a href="http://www.cdc.gov">www.cdc.gov</a></td>
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<tr>
<td>Characterizing Chemicals in Commerce: Using Data on High Production Volume Chemicals</td>
<td>NEWMOA/EPA</td>
<td>December 12-14; Austin, TX</td>
<td><a href="http://www.newmoa.org/hpv">www.newmoa.org/hpv</a></td>
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<tr>
<td>Environmental Responsibility = Market Opportunity</td>
<td>Chlorine Free Products Association</td>
<td>January 23-25; Miami, FL</td>
<td><a href="http://www.chlorinefreeproducts.org">www.chlorinefreeproducts.org</a></td>
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<tr>
<td>Toxics Use Reduction Planners Continuing Education Conference</td>
<td>TURI</td>
<td>April 12; Sturbridge, MA</td>
<td><a href="http://www.turi.org">www.turi.org</a></td>
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<td>National Environmental Partnership Summit</td>
<td>NPPR</td>
<td>May 7-11; New Orleans, LA</td>
<td><a href="http://www.p2.org">www.p2.org</a></td>
</tr>
<tr>
<td>2007 International Dialogue on Environmental Policy</td>
<td>MSWG</td>
<td>June 17-21; Madison, WI</td>
<td><a href="http://www.mswg.org">www.mswg.org</a></td>
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For a more complete listing of upcoming events, visit www.newmoa.org
NORTHEAST ASSISTANCE & POLLUTION PREVENTION NEWS

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