Vol. 18 No. 2 Fall 2008

Northeast Assistance & Pollution Prevention News

FEATURE ARTICLE

Assistance & Pollution Prevention for Garment Cleaning

Perchloroethylene (also known as perc or PCE) is the solvent used by the vast majority of the approximately 36,000 dry cleaners operating throughout the United States. Increasing evidence of the toxic nature of PCE and the adverse health and environmental impacts of its use in dry cleaning began to emerge in the 1980s. Effects from chronic exposure to PCE include dizziness, impaired judgment and perception, damage to the liver and kidneys, and respiratory disease. Other risks include neurotoxicity and reproductive and developmental toxicity as well as various forms of cancer, such as bladder, stomach, esophageal, intestinal, and pancreatic. PCE has been classified as a Group 2A carcinogen (i.e., a probable human carcinogen) by the International Agency for Research on Cancer and as a potential human carcinogen by the National Institute of Occupational Safety & Health (NIOSH).

Use of solvents like PCE by dry cleaners and others presents a potential hazard in the workplace, to neighbors, and to the environment. The use of PCE can be expensive, since waste PCE must be handled as a hazardous waste. PCE dry cleaners are also a source of a substantial amount of soil and groundwater contamination; three out of four existing dry cleaners, or 27,000 sites, are estimated to be contaminated in the United States. The remediation of these sites can be costly.

There are a number of alternatives to PCE for garment cleaning, such as hydrocarbons and siloxanes, but many of these have environmental, health, and safety concerns, or have not been thoroughly studied.

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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 develop and sustain an effective partnership of states to explore, develop, promote, and implement environmentally-sound solutions for the reduction and management of materials and waste, and for the remediation of contaminated sites, in order to achieve a clean and healthy environment. The group fulfills this mission by providing a variety of support services that:

- facilitate communication and cooperation among member states and between the states and the U.S. EPA; and
- support the efficient sharing of state and federal program resources to help avoid duplication of effort and to facilitate development of regional approaches to solving critical environmental problems.

NEWMOA's Assistance and P2 Program was established in 1989 to enhance the capabilities of the state and local government environmental officials in the Northeast to implement effective multimedia source reduction and assistance programs to promote sustainability and improvement in public health and the environment. The program is called the Northeast Assistance & Pollution Prevention Roundtable (NE A & P2 Roundtable). This program involves the following components:

- NE A & P2 Roundtable meetings and workgroups,
- regional information resource center and online databases,
- source reduction research and publications,
- training events, and
- regional policy coordination and development.

For more information contact:
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Northeast Assistance & Pollution Prevention News

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The NE A & P2 Roundtable would like to thank the following people for writing and producing this newsletter: Karen Angelo, MA TURI; Tom Armstrong, RI DEM; Jeff Burke, NPPR; Rachel Colella, NEWMOA; Peter Cooke, ME DEP; Michael DiGiore, NJ DEP; Allan Geisendorf, NYS DEC; Rob Guillemin, EPA Region 1; Gary Gulka, VT DEC; Sara Johnson, NH DES; Jim McCaughey, NBC; Joy Onasch, MA TURI; Lara Polansky, EPA Region 2; Martin Reynolds, MA OTA; Walter Schoepf, EPA Region 2; Kim Trella, CT DEP; Paul Walsh, MassDEP. Terri Goldberg managed production of the newsletter.

Please use the form at the back of this issue to request an address change, to add your name to the mailing list, or to request an email version of the newsletter.

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Fortunately, safer and greener garment care alternatives exist, particularly wet garment cleaning (see side bar description of wet cleaning operations on page 3). Of the available alternatives, wet cleaning has the fewest hazards associated with it and if used exclusively (i.e., not a combination of wet cleaning and PCE) offers cost advantages. For example, a recent California study found that wet garment cleaners were able to reduce monthly process-dependent operating costs by 23 to 48 percent.

Several states in the Northeast, including Maine, Massachusetts, and New Jersey have recently initiated programs to promote safer alternatives to traditional PCE dry cleaning. The sections below describe these efforts in detail along with a NEWMOA interview with Joy Onasch from the University of Massachusetts Toxics Use Reduction Institute (MA TURI) about their initiative to promote wet garment cleaning in the state and region.

Maine

Maine's fabric care business sector presently offers choices for garment cleaning without the use of PCE. The Maine Department of Environmental Protection's (ME DEP) web site lists 16 businesses that offer wet cleaning to their customers. Some of these wet cleaning businesses are also recognized by the state of Maine as Environmental Leaders for their efforts and accomplishments toward carbon emissions reductions in the Governor's Carbon Challenge and other sustainable business practices (www.maine.gov/dep/innovation).

The ME DEP's Division of Remediation began a Dry Cleaner Initiative in 2004. This effort included a statewide inventory to identify dry cleaning business sites (past and present) and to provide a preliminary evaluation of these facilities. This initiative has so far identified 187 dry cleaners in Maine, of which approximately 94 currently or historically used PCE. The remaining sites need additional research to determine if PCE or other solvents were used in the cleaning process. In addition to currently operating dry cleaners, these 187 sites include storefronts and laundry drop-off locations, sites of abandoned/vacant dry cleaners, buildings that once housed a dry cleaner but now operate as another type of business, and dry cleaners that could not be located (although administrative records indicate they existed).

What is Wet Garment Cleaning?

Professional wet garment cleaning has been demonstrated to be a technically viable and commercially feasible substitute for PCE dry cleaning. Wet cleaning uses computer-controlled washers and dryers, specially formulated detergents, and specialized finishing equipment to create a cost-effective alternative to dry garment cleaning. Professional wet clean washers use a computer to control the rotation of the cleaning drum in order to minimize agitation while providing sufficient movement for effective garment cleaning. Wet clean washers are also equipped with a computer programmed detergent injection system, which allows the cleaner to specify the amount and type of wet clean detergent used for each load. Detergent manufacturers have formulated biodegradable wet clean detergents to maximize cleaning while minimizing color change and shrinkage. Wet clean dryers include computer controls so that garments retain the proper amount of moisture after the dry cycle is complete. Wet cleaners use specialized tensioning pressing machines to restore constructed garments, such as suit jackets, suit pants, and tailored items. There are a number of companies that manufacture professional wet cleaning washer and dryer systems, tensioning equipment presses, and professional wet cleaning detergents and additives.

In the United States, the diffusion of professional wet cleaning has been slow. Barriers include limited understanding by cleaners of the viability of professional wet cleaning; lack of an infrastructure for professional wet cleaning in major metropolitan regions, including a lack of knowledgeable vendors, qualified installers, qualified trainers, and real-world venues to observe the potential of the technology; limited understanding by stakeholders of the environmental and economic benefits of professional wet cleaning; and lack of customer awareness of professional wet cleaning as a viable substitute for PCE dry cleaning. A variety of programs in the Northeast, California, and elsewhere have been designed to address these barriers.

In a study of garment cleaners that switched to professional wet cleaning in California, the businesses were able to successfully wet clean the full range of garments that they previously dry cleaned with operating costs that were lower.

Source: "Equipment Report: Professional Wet Cleaning Technologies," prepared by the Pollution Prevention Center, Occidental College, September 2007; http://www.turi.org/community/wet_cleaning.

Site investigations discovered that contamination from dry cleaning solvents was not only found in soils and groundwater, but was also found in the indoor air of adjacent and nearby buildings. When chemicals volatize from impacted soil and/or groundwater beneath a building, they can diffuse toward regions of lower chemical concentration, often migrating into overlying or nearby buildings (a process called vapor intrusion). Unfortunately, any dry cleaner that used PCE or other solvents to clean clothing could pose a substantial vapor intrusion risk. Remediation costs for an individual site can be expensive and have been known to exceed one million dollars.

A new Maine law that will prevent future contamination of private and public drinking water supplies from dry cleaners that use PCE will take effect on September 30, 2008. This law, Public Law Chapter 569 "An Act to Prevent Contamination of Drinking Water Supplies," prohibits dry cleaners that use PCE (as well as some other types of businesses and oil storage facilities) from constructing a facility in a wellhead protection zone, unless a variance is provided by the ME DEP. The new law also provides additional protections to sand and gravel aquifers and mandates the ME DEP to develop regulations for protection of significant sand and gravel aquifers.

Maine DEP's Bureau of Air Quality provides outreach to dry cleaners to assist with compliance with amended EPA regulatory requirements pertaining to revised standards under the Clean Air Act. The Department conducted a "Dry Cleaner Workshop" in August 2007, which included

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Promoting Wet Garment Cleaning:

An Interview with Joy Onasch, Toxics Use Reduction Institute

NEWMOA: Why is the Massachusetts Toxics Use Reduction Institute (TURI) involved with promoting wet cleaning as an environmentally safer alternative to traditional dry cleaning in Massachusetts?

Onasch: For quite some time, MA TURI has been involved in promoting the move away from perchloroethylene (PCE) use in the garment care industry. In 2006, PCE was identified by the Massachusetts state legislature as one of five chemicals that they were concerned about. The legislature wanted more information about possible safer alternatives. As a result, MA TURI produced the "Five Chemicals Study" (www.turi.org/home/home_page/new_at_turi/five_chemicals_study) that included a section on PCE and alternatives in the dry cleaning sector. As a follow-up to the study, MA TURI wanted to build on existing programs in the U.S., notably those in California, that were working intimately with the dry cleaning sector to move to safer alternatives. We also researched recent technology advances in wet cleaning equipment, which now make a dedicated wet cleaning facility more feasible. This is a significant change since 1995 when MA TURI first started working on this sector

NEWMOA: What are the advantages of wet cleaning over traditional dry cleaning?

Onasch: Wet cleaning has many advantages over traditional dry cleaning. An overall advantage is creating a healthier work environment for workers. Owners also experience reduced operating costs related to regulatory requirements, waste disposal, utility costs, and potential intangibles, such as lost work time and illness. Wet cleaning also eliminates concerns about contamination at the facility in the future.

For customers, they are left with the knowledge that they are supporting an environmentally friendly business. The potential no longer exists that their clean clothes contain a hazardous material when they bring them home.

NEWMOA: Doesn't wet cleaning damage clothing?

Onasch: Wet cleaning does not damage clothing. In May 2008, my colleague, Heidi Wilcox and I visited five dedicated wet cleaners in the Los Angeles area with the help of Peter Sinsheimer from the Pollution Prevention Center at Occidental College. Even though we were advocates of wet cleaning before this trip, we saw five different businesses clean all of their garments with wet cleaning equipment. We observed them successfully wet cleaning leather goods, wedding dresses, silks, and wools. None of them regretted their decision to convert to wet cleaning.

The difference in the indoor air quality in those shops in California was noticeable compared to the dry cleaning shops we have visited in Massachusetts.

The cleaners in California did state that there was a learning curve for them when they converted. They had to learn new techniques to ensure customer satisfaction and efficient output. Once they learned the new techniques, they were completely satisfied with the new methods.

The number of complaints from customers at the five cleaners we visited did not go up after they made the conversion. If there was any garment shrinkage, the cleaners were able to reshape them on the tensioning equipment.

NEWMOA: What is MA TURI doing to promote wet cleaning in Massachusetts?

Onasch: MA TURI has undertaken an educational program to reach out to dry cleaners across the state. We started by mailing information to all of the dry cleaners about PCE and wet cleaning alternatives. We followed that up with a demonstration event in the fall of 2007. That event gave cleaners the opportunity to see the washing, drying, and tensioning equipment in use. Following that event, TURI awarded a matching grant to one facility in Bellingham, MA to convert to a dedicated wet cleaning operation. Once this conversion is completed, we will host demonstration events at that site to educate other cleaners and interested

Promoting Wet Garment Cleaning:

An Interview with Joy Onasch, Toxics Use Reduction Institute

stakeholders. In FY 2009, we plan to offer a second matching grant to a cleaner in Massachusetts. The Institute's longer term objective is to establish demonstration sites spread across Massachusetts so that the technology diffusion will take place.

NEWMOA: Do you have any results from your efforts so far?

Onasch: The demonstration site is currently working to convert to wet cleaning and has collected data on performance and costs associated with their PERC equipment. Over the course of the next year, they will collect similar data on the new wet cleaning operation. Due to significant utility savings recognized at the facilities in California, MA TURI is collecting data specific to utility usage at the demonstration site. The cleaner's utility provider is contributing $2,500 to the project, and through the resulting data, we hope to convince northeast utility providers that significant energy savings can be realized through conversion to wet cleaning.

NEWMOA: What should customers do to promote safer alternatives to PCE dry cleaning?

Onasch: Customers can help to create demand for wet cleaning alternatives by requesting it from their garment cleaner. It is important that customers be educated about the other alternatives to PCE that are being promoted as "green," organic, or environmentally friendly – which may in fact not be the best choices. The customer needs to be persistent with their dry cleaner because the dry cleaners may not be forthcoming with information about their specific process.

NEWMOA: Do you have any suggestions for state and local government officials?

Onasch: Educating dry cleaners and including trade associations is important as they work toward safer alternatives. An interesting aspect of what is going on in California is that the initial push for cleaners to convert to wet cleaning came from regulatory pressure. It is important for government officials to recognize that wet cleaning has become a technologically and economically viable alternative to using PCE for garment cleaning.

For more information visit:
www.turi.org/community/wet_cleaning;
www.turi.org/home/hot_topics/garment_cleaning.

Maine *(continued from page 3)*

presentations on EPA's dry cleaner regulations, Maine's dry cleaner rule making, compliance issues, and alternatives to perchloroethylene. Two Maine Environmental Leader businesses gave presentations concerning their wet cleaning and energy efficient laundering processes as part of the workshop, and 12 independent dry cleaner business owners and representatives of the North East Fabricare Association attended this meeting and provided feedback on Maine's working draft Perchloroethylene Dry Cleaner Rule. The Bureau of Air Quality's dry cleaner rulemaking will incorporate EPA's amended regulatory requirements and provide further measures to prevent exposure to PCE by workers and inhabitants of adjacent buildings.

For more information contact: Lisa Higgins, ME DEP (207) 791-8101, lisa.higgins@maine.gov.

Massachusetts

The Massachusetts Toxics Use Reduction Act (TURA) Program will consider designating PCE as a higher hazard substance in the fall of 2008. This means that facilities that manufacture, process, or otherwise use PCE above 1,000 pounds per year and employ 10 or more full-time employees, would become part of the TURA Program and be required to submit toxics use reports, pay fees, and complete a toxics use reduction plan. Amendments to the Massachusetts Toxics Use Reduction Act (TURA) adopted in 2006 allow the TURA program to designate up to 10 higher hazard substances per year. In December, the TURA Administrative Council, a six-member body composed of representatives from several Massachusetts government agencies, (www.mass.gov/envir/ota/resources/pdf/admin_council_list.pdf) designated trichloroethylene

(TCE), cadmium, and cadmium compounds as Massachusetts' first higher hazard substances.

A higher hazard designation for PCE would bring a number of facilities, including some dry cleaners, into the TURA Program for the first time. Thus, it would create new opportunities for promotion of safer alternatives to PCE in the dry cleaning sector. Many dry cleaners would remain exempt because facilities with fewer than 10 full-time employees are not subject to TURA. However, the statute provides the option of eliminating the 10-employee threshold in the future if the program designates a "priority user segment." As the TURA Administrative Council considers designating PCE as a higher hazard substance, they must evaluate whether TURA is the best policy tool to accomplish toxics use reduction for this sector.

The Massachusetts Department of Environmental Protection (MassDEP) works closely with dry cleaners through its Environmental Results Program (ERP), an environmental performance initiative that replaces facility-specific state permits with industry-wide environmental performance standards and annual compliance certifications. This Program has brought garment cleaners into compliance with existing regulations, improved communication with cleaners, and facilitated information gathering about this sector. ERP data show that in 2006, facilities used 781,537 pounds of PCE and generated 475,286 pounds of hazardous waste – a 60 percent decline in use and 57 percent decline in waste generation from 1997. As Massachusetts garment cleaners shift away from using PCE, providing timely technical assistance in identifying and adopting the best alternatives is particularly important.

The MA TURA Program offers technical assistance to facilities by analyzing alternatives with the fewest health and environmental concerns while considering short and long term costs. Concurrent with efforts to address PCE at the policy level, the MA TURA Program is working with garment cleaners to adopt safer alternatives to PCE. Activities have included the following:

- MA Toxics Use Reduction Institute (TURI) sponsored a wet cleaning demonstration day in Lowell in October 2007. At this event, dry cleaners had the opportunity to view wet cleaning equipment first hand and to talk with dry cleaners from California that use the equipment in their facilities.
- MA TURI provided a $17,000 grant in fiscal year 2008 to Silver Hanger Cleaners in Bellingham, MA, enabling the facility to make the transition from PCE to 100 percent wet cleaning. In fiscal year 2009, this facility will host demonstration events to help other cleaners to learn about the technology. TURI expects to provide a similar grant to another cleaner in 2009.

For more details on these programs, see the Interview with Joy Onasch, MA TURI in the sidebar on pages 4-5.

For more information contact: Rachel Massey, MA TURI (978) 934-3124, Rachel@turi.org; visit www.turi.org.

New Jersey

PCE-based dry cleaning is now subject to increased regulation by a wide range of federal, state, regional, and local agencies. However, such regulations are difficult to enforce in an industry dominated by thousands of small shops with a high percentage of ownership among recent immigrants. Because of ongoing issues with non-compliance and public health risk, and the increasing availability of alternatives, the New Jersey Department of Environmental Protection (NJ DEP) has recently proposed rules that would limit and ultimately phase out PCE dry cleaning in the State.

This regulatory pressure has pushed the 1,200 dry cleaners in New Jersey toward other solvents, especially those promoted as drop–in replacements for PCE, notably n-propyl bromide (nPB). N-propyl bromide has neurotoxic effects and known teratogenic concerns. The carcinogenic effects are currently under study. A recent case of nPB poisoning of a New Jersey dry cleaner operator has highlighted health concerns with this and other

GARMENT CLEANING 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.

P2Rx Topic Hub on Dry Cleaning

is a primer intended as a quick guide to the essential pollution prevention information for the garment care industry, as well as a compilation of pertinent on-line resources. The Topic Hub includes an extensive list of P2 opportunities involving process modification, material substitution, and such new technologies as wet cleaning, ultrasonic cleaning, and supercritical carbon dioxide cleaning.

www.p2rx.org/topichubs/drycleaning

P2Rx has completed a one-page fact sheet for dry cleaners that highlights pollution prevention opportunities and resources.

www.p2rx.org/AdminInfo/topichubspromo/drycleaning.pdf

EPA's Design for the Environment (DfE)

website presents a case study of wet cleaning systems for the garment care industry and information about how wet cleaning systems work, including the costs, availability, and performance capabilities of this technology compared to traditional dry cleaning.

www.epa.gov/dfe/pubs/garment/wsgc/wetclean.htm

California Environmental Garment Care Project

of the Pollution Prevention Center (PPC) at Occidental College conducts research and provides education on pollution prevention alternatives to PCE-based dry cleaning.

departments.oxy.edu/uepi/ppc/projects.htm

MA Toxics Use Reduction Institute

website includes information on wet cleaning demonstration events and a matching grant program, a demonstration video, and fact sheet.

www.turi.org/community/wet_cleaning

Connecticut Department of Environmental Protection

website presents a fact sheet on green cleaning technologies, including wet cleaning, for the garment care industry.

www.ct.gov/dep/lib/dep/p2/garment_care/greencleaning.pdf

Maine Department of Environmental Protection

maintains a website that lists dry cleaners in the State that use "green" technologies.

maine.gov/dep/rwm/homeowner/drycleaning.htm

The Center for Neighborhood Technology

maintains a website with links to information and resources about wet cleaning.

www.cnt.org/wetcleaning

Co-op America

presents information for consumers about "green" dry clean alternatives, including wet cleaning, liquid CO2, and other technologies.

www.coopamerica.org/pubs/realmoney/articles/drycleaning.cfm

alternative solvents. In addition, machine manufacturers recommend that waste from nPB dry cleaning be disposed of as hazardous waste.

Professional wet cleaning appears to be the most environmentally preferable economic choice for garment care professionals (see side bar on page 3 for description of wet cleaning operations). To promote the growth of professional wet cleaning in New Jersey, the NJ DEP in cooperation with the New Jersey Small Business Development Center (NJSBDC) has successfully applied for a pollution prevention grant with EPA Region 2 to support an initiative that builds on the successful California Professional Wet Cleaning Commercialization Project. Educational materials comparing the benefits of wet cleaning to solvent cleaning will be prepared and distributed. Existing wet cleaning facilities in New Jersey will be recruited to demonstrate the process to dry cleaners. Additional workshops will be held to provide education and outreach. Wet cleaning equipment manufacturers, suppliers, and installers will be contacted to provide technical assistance and financial incentives to potential wet cleaner operators. New facilities will receive assistance in exchange for hosting a demonstration for fellow cleaners and other stakeholders.

For more information contact: Michael DiGiore, NJ DEP (609) 777-0518

PROGRAM UPDATES

CONNECTICUT

Connecticut Department of Environmental Protection (CT DEP)

Hospitals Focus on Local, Healthy Foods

Nationally, and in Connecticut, hospitals are looking for ways to go green and be healthy places for patients, staff, and visitors. They are putting in healing gardens, using "green" cleaners and building materials, and now, they are changing their food services.

In June, the CT Hospital Environmental Roundtable (CHER) held a workshop hosted by Yale-New Haven Hospital that focused on a win-win change – serving locally grown foods. Fifty people representing more than half of CT hospitals attended the workshop. Locally grown food is fresher, seasonal, and unprocessed, so everyone eating at the hospital wins, and the community wins too. Local Connecticut and regional farms produce meats, dairy, fruits, and vegetables. Having a steady market for their products makes it economically viable for them to continue to farm. They can provide some foods year round and others well past harvest using cold storage. Food grown locally travels far fewer miles to get to the table, reducing fuel use and air pollution, and the public understands where food is grown.

After an inspiring welcome by Steve Merz, Vice President of Administration, including an overview of the many environmental actions Yale New-Haven Hospital has taken, the rest of the workshop featured New Milford Hospital as a model for their local, sustainable food initiative called Plow to Plate (visit www.platetoplate.org). "While it's not easy to change food purchasing decisions and menus at an institution, it can and should be done" said Marydale DeBor, Vice President of External Affairs at New Milford Hospital. Health Care Without Harm (www.noharm.org) described a Menu of Options that hospitals could choose from to begin to incorporate local foods, and the Healthy Food in Health Care Pledge that over 125 hospitals have taken. The CT Department of Agriculture's Farms to Chef Program was also presented (visit www.ct.gov/doag/cwp/view.asp?a=2778&q=330830).

For more information contact: Connie Mendolia or Nan Peckham, CT DEP (860) 424-3297; visit www.ct.gov/dep/cwp/view.asp?a=2708&q=323980&depNav_GID=1763.

Hospitals & CT DEP Receive Awards

This year, five Connecticut hospitals and the CT DEP received awards from Practice Greenhealth (formerly H2E) for their sustainability initiatives:

- Connecticut Children's Medical Center
- St. Francis Hospital & Medical Center

- University of Connecticut Health Care
- Bridgeport Hospital
- Lawrence & Memorial Hospital
- CT DEP Pollution Prevention Office

For more information contact: Connie Mendolia or Nan Peckham, CT DEP (860) 424-3297.

5 Million Mile Rideshare Challenge

In April 2007, Connecticut Governor M. Jodi Rell kicked off the Tri-State 5,000,000 Mile Rideshare Challenge – an event that challenged companies and commuters to carpool and reduce 5,000,000 miles of driving in Connecticut, New York, and New Jersey.

The Tri-State Challenge took place from April 1, 2007 to April 30, 2008. Connecticut commuters reduced their driving by 3.4 million miles, which is equal to having every major road and highway throughout the state being completely empty of cars for 1 hour, preventing about 1,500 tons of greenhouse gas emissions. Commuters saved 153,000 gallons of gas, the equivalent of 17 tanker trucks worth over $600,000.

Area employers actively supported the challenge by "racing" against each other and promoting the event to their employees. In July, Governor Rell presented awards to approximately 20 participating companies and agencies for their high achievement. The CT DEP received an award for having a high participation rate (visit www.ct.gov/governorrell/cwp/view.asp?A=3293&Q=420226).

Over 30 local and national sponsors supported the events and provided $118,500 in rewards and prizes to participating commuters. NuRide, an online carpooling and ridesharing site, was utilized for the Tri-State Challenge.

For more information visit: www.nuride.com.

Organic Land Care

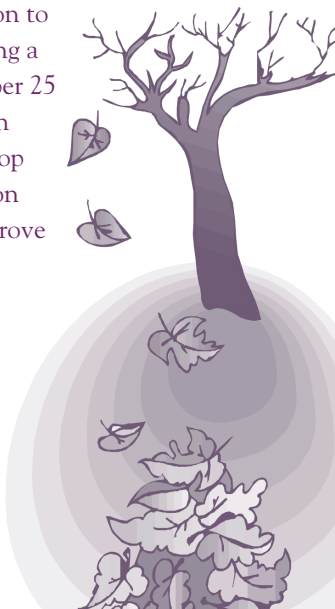
CT DEP is in its second year partnering with the Northeast Organic Farming Association (NOFA) of CT to provide technical assistance to municipalities on converting to organic methods to manage their turf playing fields. CT DEP and NOFA are now working with two municipalities, Manchester and Watertown, to transition away from conventional pesticides and fertilizers on a soccer field and a baseball field, respectively.

A challenging part of moving to Organic Land Care is the cost of organic fertilizers compared with conventional ones. Utilizing "free" compost produced from town leaves is one of the best responses to this challenge. Organic land care specialists recommend that the compost be tested before application and results compared with the needs of the turf soil for nutrients, organic matter, and biology. Of the two pilot towns, Manchester has an excellent compost operation, producing compost that is used on turf maintained by the town and for resident pick-up. In order to determine if the town compost would be healthy for the Manchester pilot project soccer field, CT DEP utilized an extensive test from the Soil Food Web Laboratory.

Biological and chemical analysis of Manchester's compost indicated that it would be a good nutrient source for the soccer field in the future. However, it was recommended that the town not use this as a source of organic matter until phosphorous, potassium, and trace minerals are lowered and the levels of beneficial bacteria and fungi in the soil are improved. Phosphorous in particular needs to be reduced in the compost so that ground and surface water is not impacted by excessive nutrients.

In order to improve their compost, Manchester, CT DEP, and NOFA are adding such feedstocks as wood chips, food slurry, and manure from local farms to the 2006 and 2007 leaf windrows. The resulting "gourmet composts" will be tested for nutrients as well as organic matter to determine if any of the additional feedstocks resulted in improvements to the leaf compost that will overcome deficiencies in the soccer field's soil.

CT towns will be phasing out the use of pesticides on K-8 school fields and grounds by July 2009. In order to provide towns with resources to transition to organic methods, CT DEP will be holding a workshop for municipalities on September 25 at the Agriculture Experiment Station in New Haven, CT. The Compost Workshop for Municipal Turf Managers will focus on how to use this valuable resource to improve athletic fields.



For more information contact: Mary Sherwin, CT DEP (860) 424-3246; Judy Prill, CT DEP (860) 424-3694.

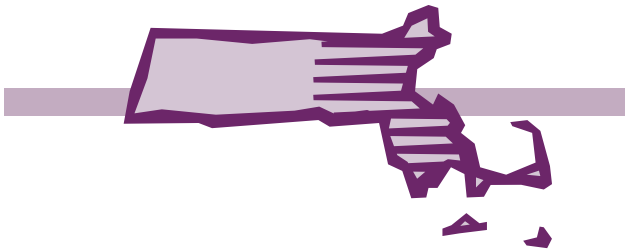
MAINE

Maine Department of Environmental Protection (ME DEP)

Current activities of the Pollution Prevention Program in Maine DEP's Office of Innovation and Assistance (OIA) include:

- Implementing a state environmental certification program for the hospitality sector targeting hotels, motels, and inns. Launched in November of 2005, there are currently 88 certified businesses in Maine. The P2 program has performed over 40 site visits for this self certification program making an average of 10 P2 recommendations at each facility. Verification audits of point totals occur annually at 12 random businesses. Staff presented on the program at several tourism conferences and half-day workshops.
- Implementing a state environmental certification program for restaurants. Launched in June of 2007, there are currently 20 certified businesses in Maine. The P2 program has performed 10 site visits for this program making an average of 10 P2 recommendations at each facility. Staff presented on the program at several tourism conferences and workshops.
- Assisting businesses and organizations with calculating 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. Providing assistance to Maine's Division of Purchases on selection of Green Seal certified cleaning chemicals, low mercury lighting, and Electronic Product Environmental Assessment Tool (EPEAT)-rated electronic equipment.
- Assisting six companies and institutions with the implementation of an Environmental Management System (EMS).
- 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.
- 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

Massachusetts Department of Environmental Protection (MassDEP)

MassCleanDiesel Reduces Air Pollution

The MassCleanDiesel program will retrofit yellow school buses with two pollution controls: a diesel particulate filter (on the exhaust system) and a diesel oxidation catalyst (on the engine), which will reduce the pollutants released into the air and bus cabins by as much as 90 percent. The diesel retrofits will decrease the levels of exterior and in-cabin particulate matter, carbon monoxide, and hydrocarbon emissions and produce less tailpipe pollutants that form smog, without compromising vehicle performance.

School buses are a safe and energy efficient way for children to get to school. But school buses, like all diesel-powered vehicles, pollute the air with harmful gases and particles. Diesel pollution contributes to asthma attacks, respiratory problems, and other diseases. A 2006 MA Department of Health survey of 662,994 students found that 1 in 10 schoolchildren in kindergarten through eighth grade have asthma. Approximately 750,000 students take a bus to school in Massachusetts.

Administered by the Massachusetts Department of Environmental Protection (MassDEP), over the next three years, MassCleanDiesel will retrofit up to 5,500 school buses, virtually all the large, diesel-powered buses currently serving public schools that weigh more than 10,000 pounds and carry more than 10 students at a time. The pollution controls will be installed using $16.5 million in state and federal funds provided by the Massachusetts Executive Office of Transportation and Public Works (EOT), under an agreement associated with the Big Dig. Participation in the program is voluntary and retrofits are free to the communities and bus companies that enroll.

To receive free retrofits, school bus owners must enroll in the program, obtain estimates from retrofit vendors, and work with those vendors to coordinate equipment installations. MassDEP will reimburse the retrofit vendor directly, provided that installations meet all terms of the program.

For more information contact: (617) 292-5809; visit www.mass.gov/dep/air/diesel/masscleandiesel.htm.

Environmental Compliance for the Coatings Industry

MassDEP organized and hosted a compliance assistance seminar for over 75 companies in Central and Northeastern Massachusetts, with a focus on the industrial coatings industry. The program was designed to help industrial coatings companies stay in compliance with a number of environmental regulatory requirements, including air quality and hazardous waste rules. Presenters explained how the regulators and inspectors view those requirements in the context of a facility inspection. The workshop featured a panel discussion on source reduction, alternative materials use, and military specifications, with information presented from people that have explored alternative chemicals and materials to reduce air quality impacts.

For more information visit:
www.mass.gov/dep/service/onltrain.htm.

Students' Awards

Nearly 140,000 students from 405 Massachusetts schools signed up this year to participate in a statewide educational program to reduce pollution and protect the environment. The effort, called "The Green Team," is part of the Executive Office of Energy and Environmental Affairs (EOEEA) and MassDEP statewide environmental protection education effort for students of all ages.

Over 800 classes participated in the Green Team this year, taking part in activities ranging from expanding school recycling programs to building solar-powered toy cars. Participating classes were entered into a drawing for prizes, and 88 of these classes received grand prizes for their efforts.

Participating teachers received a Green Team Kit containing educational tools, such as a classroom poster, lesson plans, recycling tips, and access to a library of resources. In addition, 114 schools received recycling equipment from the Green Team to initiate or expand school recycling programs. Seven schools received idling reduction signs from The Green Team to remind drivers to turn off their engines while waiting in the schoolyard.

In addition, nearly 7,600 of these students pledged to reduce, reuse, and recycle; walk, bike carpool, or take public transportation; and conserve energy and water to help protect the environment. Many of them encouraged their parents to take an Idling Reduction Pledge to turn off the engine while parked or waiting to reduce pollution and save energy.

Other students tracked the trash generated in their home for one month; subtracting the amount of trash their family eliminated by recycling. Other activities included improving school recycling or composting programs; promoting the switch to energy-efficient light bulbs; writing to elected officials; and creating signs, posters, and web pages to raise environmental awareness in the school community.

All participating classes received Certificates of Recognition, "Trash Terminator" bookmarks, or pencils made from recycled denim or money. A grand prize drawing was held among classes that achieved the highest level of participation.

For more information visit: www.thegreenteam.org.

Massachusetts Office of Technical Assistance (MA OTA)

Innovative Digital Printing

On October 16, 2008, the Massachusetts Office of Technical Assistance and Technology (MA OTA) will host a conference to update Commonwealth officials and industry representatives on a promising new printing technology for the textile industry. For the last two years, MA OTA has managed a $150,000 study, funded by the John Adams Innovation Institute, part of the Massachusetts Technology Collaborative (MTC), to evaluate the feasibility of high-speed digital printing using wide-format printers and radiation-curable materials. To date, study results have been encouraging, raising the possibility that this technology could offer textile-finishing and other types of printing companies a more economical, more environmentally friendly, and less energy-intensive alternative to conventional rotary screen printing. MA OTA next plans to assemble a coalition of stakeholders to apply to MTC for a grant to fund the launch of a prototype for commercial operation.

For more information contact: Gus Ogunbameru, MA OTA (617) 626-1065, augustus.ogunbameru@state.ma.us; Morgan Mihok, MA OTA (617) 626-1088, morgan.mihok@state.ma.us.

Water Conservation in Marlborough

Marlborough is one of a growing number of cities west of Boston that is implementing water conservation measures so that they can accommodate future development. The situation is particularly urgent in Marlborough because its wastewater treatment facility has reached maximum capacity. Under a federal grant managed by the MassDEP, MA OTA will direct a water conservation program that includes water audits at 10 large industrial and commercial facilities. Contractors will perform eight of the audits; MA OTA will complete two of the studies. Water balance analyses will identify equipment and processes that generate the most wastewater and pinpoint water conservation opportunities. As part of this effort, MA OTA will conduct a workshop for hotel and motel managers to promote water conservation strategies.

For more information contact: Gerald Podlisny, MA OTA (617) 626-1098, gerald.podlisny@state.ma.us.

Seaman Paper's Energy Conservation

MA OTA and the MA Toxics Use Reduction Institute recruited Seaman Paper Company, Otter River, to serve as a "demonstration site" to share its innovative energy conservation strategies and systems with Massachusetts businesses. A leader in resource conservation, the privately-owned paper company has implemented an energy consumption and fuel substitution policy that reduced electricity use by 2.6 million kilowatt hours per year and oil use by nearly 1.7 million gallons yearly. "Our demo site program," explained MA OTA Director Rich Bizzozero, "recruits early adopters and leaders in toxics and resource conservation to open their doors to other companies. We have found that businesses are more apt to adopt a technology or strategy if one of their peers has already adopted it and dealt with the potential regulatory issues." The two days of tours attracted more than 50 companies and the interest of state and local legislators.

For more information contact: Rick Reibstein, MA OTA (617) 626-1062, rick.reibstein@state.ma.us; visit www.mass.gov/envir/ota/publications/cases/seaman_paper.pdf.

New Spray Coating Regulations

In December 2007, the MassDEP introduced new regulations that will affect spray coating facilities emitting relatively small amounts of solvents and pollutants, known as Volatile Organic Compounds (VOC). To date, MA OTA has hosted workshops and conducted site visits to help companies understand and comply with the new regulations and to find ways to reduce their use of VOC and toxic material. MA OTA has prepared a downloadable summary of the new regulations, "Guidelines for Compliant Spray Booth Operation."

For more information contact: Michelle Miilu, MA OTA (617) 626-1094, michelle.miilu@state.ma.us; visit www.mass.gov/envir/ota/publications/pdf/spray_booth_final.pdf.

Massachusetts Toxics Use Reduction Institute (MA TURI)

Champions Recognized

Massachusetts Representatives and Senators joined MA TURI in presenting the 2008 Champions of Toxics Use Reduction Awards in June. The following honorees are outstanding leaders that have reduced toxic chemical use in Massachusetts through innovation and outreach:

Industry Honorees –

- Rose Perkins (Toxics Use Reduction Planner) and Rohm and Haas Electronics Materials, Marlborough
- Gentex Optics, Dudley
- Silver Hanger Cleaners, Bellingham

Community Honorees –

- Cape Cod Cooperative Extension, Barnstable
- Worcester Youth Center
- ECOprojects, Lynn
- Town of Townsend, Conservation Commission
- Townsend Organic Lawn Care Demonstration Site
- Vietnamese American Initiative for Development, Inc., (Viet-AID), Dorchester

For more information visit: www.xrl.us/statehouse2008.

2009 Community Grants

TURI recently funded the following nine Massachusetts community organizations to implement projects that will raise awareness of toxics and safer alternatives:

Tier I ($1,000) –

- Northeast Organic Farmers Association (NOFA), Barre – Municipal Scholarships to day- long Organic Lawn & Turf Course
- Lowell Green Building Commission - outreach and education on toxics in building materials
- The Organic Mom, Berkley - Free lecture series on reducing toxics in the home yard and garden

Tier II (up to $15,000) –

- Brazilian Women's Group, Allston - Natural Cleaning in the Brazilian Community
- Wampanoag Tribe, Martha's Vineyard - Lead-Free Vineyard Fishing
- Townsend Conservation Commission - Organic Lawn Care Demonstration Project
- Viet- AID, Dorchester and Springfield - The Healthy Floor Finisher Project
- Center Pond Weed Project, Becket - Hand pulling weed project to eliminate chemical use
- School Disinfection Workgroup, State-wide project – School disinfection decision- making material development

For more information contact: Joy Onasch, MA TURI (978) 934-4343, joy@turi.org.

Toxics Use Reduction Trainings

MA TURI Education and Training events provide learning opportunities for managers to become Massachusetts-certified Toxics Use Reduction (TUR) Planners. Yet, participants do not need to be a TUR Planner to participate in the training sessions and learn how to identify safer alternatives and more efficient processes. Upcoming events:

- November 20, 2008 – Continuing Education Conference – Sheraton Framingham, MA
- December 3, 2008 – Resource Conservation Training, Doyle Conservation Center, Leominster, MA.

For more information contact: Anne Basanese, MA TURI (978) 934-3144, Anne_Basanese@uml.edu; visit www.turi.org.

Services for Product Formulators

Due to the increasing demand for effective, green cleaners by such institutions as schools, hospitals, and government buildings, the MA TURI Laboratory has been helping vendors test and certify janitorial products. All of this testing data is available online in the TURI CleanerSolutions database: www.cleanersolutions.org.

For more information visit: www.turi.org/laboratory/going_green_for_cleaning.

NEW HAMPSHIRE

New Hampshire Department of Environmental Services (NH DES)

Green Slopes Outcomes

Seven New Hampshire ski facilities and resorts used biodiesel for the 2007 – 2008 ski season. Collectively, these ski areas purchased 296,600 gallons of biodiesel. Two of the locations have switched their entire resort operation to biodiesel. Upon switching fuels, these facilities reduced emissions of carbon dioxide (CO2), hydrocarbons (HC), particulate organic matter (POM), and carbon monoxide (CO). The estimated results are summarized in the table below.

Emissions Reductions for 7 Facilities That Used 296,600 Gallons of Biodiesel (B20) for the 2007-2008 Ski Season

Emissions	Pounds of Emissions Produced per Gallon of Diesel Burned	Potential Emissions from Diesel in Season (lbs)	Emission % Difference Between Diesel & Biodiesel	Actual Emissions Reduced for Season (lbs)
CO2	22.2	6,584,520	-15%	987,678
HC	0.049	14,533	-21%	3,052
POM	0.042	12,457	-10%	1,246
CO	0.139	41,227	-11%	4,535
NOx	0.488	144,741	2%	(2,895) (Increase)

Sources: www.epa.gov/otaq/climate/420f05001.htm; NH DES Air Resources Division (ARD); www.granitestatecleancities.org/pdf/treadwell.pdf.

Nine ski facilities signed up for Anti-Idling Campaigns. On average the ski areas typically have 20 buses that idle all day from 9am-3pm. If all of these buses were prohibited from idling, the estimated combined reduced emissions would be 88 pounds of PM, 3,214 pounds of NOx, and 226,914 pounds of CO2 as summarized in the following table.

Emission Reductions for 9 Facilities Involved with Anti-Idling Campaign

Emissions	One hour of Idling	20 Vehicles for a six hour day	20 Vehicles per Ski Season	20 Vehicles per Ski Season
	grams/hour	grams/day	Grams/90 day Ski Season	Reduction in pounds/90 Day Ski Season
PM	3.68	442	39,744	88
NOx	135	16,200	1,458,000	3,214
CO2	9,500	1,140,000		226,194

Source: http://westcoastcollaborative.org/files/funding-forums/Seattle/4%20David%20Adler%20March%2027th%20PPT.pdf.

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

Transfer Station Visits

In the spirit of the Common Measures Project, NH is visiting 20 percent of the NH transfer stations/recycling centers to determine compliance with RSA 149-M:58, which bans the disposal of mercury-added products at any solid waste landfill, transfer station, or incinerator. While the facilities are not required to recycle mercury-added products, they must post a sign warning that it is illegal to dispose of mercury-added products in solid waste and provide written notification to residents. In addition, they must provide residents with information about available collection and recycling programs for mercury-added products. The facilities must implement an inspection procedure to detect the presence of mercury-added products in solid waste. A summary of the findings will be released later in the year.

For more information contact: (800) 273-9469 (in state only), (603) 271-0878, nhppp@des.nh.gov.

Thermostat Recycling

The NH legislature recently passed Senate Bill 528, which requires thermostat manufacturers to develop new or enhance existing program for the recycling of mercury-added thermostats. The bill also requires wholesalers to act as collection points, mandates the state to develop recycling goals, bans the installation of existing mercury thermostats (as of July 1, 2008), and requires contractors to recycle thermostats that they remove during construction or demolition work. Manufacturer recycling

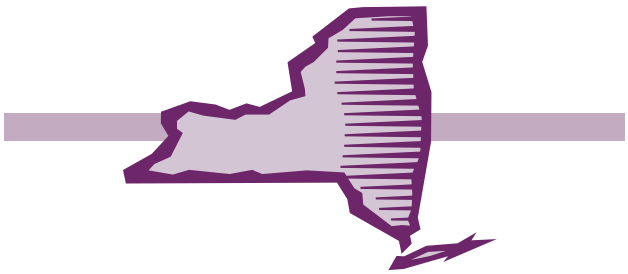
program plans are due to NH DES by October 11, 2008. A sales ban on new mercury thermostats went into effect on July 1, 2008.

For more information contact: Stephanie D'Agostino, NH DES, Stephanie.D'Agostino@des.nh.gov.

NHPPP Program Manager Leaves

On September 4, 2008, Sara Johnson will officially end a 10-year relationship with the NH Pollution Prevention Program. Ms. Johnson joined the NHPPP in 1997 as a part-time Program Assistant and by 2000 was the Program's Manager. Sara turned the NHPPP into an award-winning program garnering citations from EPA, NPPR, and Hospitals for a Healthy Environment. To those familiar with it, Sara was the NHPPP, and she will be missed. Sara will now become the Small Business Technical Assistance Program (SBTAP) Ombudsman for the NH DES and will continue her work with NPPR. This move will bring a little P2 philosophy into the NH SBTAP and result in even closer cooperation between the two programs.

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



NEW YORK

New York State Department of Environmental Conservation (NYS DEC)

Pollution Prevention Institute (P2I)

The Pollution Prevention Institute is now open for business. Housed at the Rochester Institute of Technology (RIT), the P2I is a partnership of RIT, Rensselaer Polytechnic Institute (RPI), Clarkson University, University of Buffalo, and the State's 10 Regional Technology Development Centers (RTDC). The P2I has set up a website and is finalizing agreements with partner universities, accepting client referrals, and developing training programs for NYS DEC and RTDC staff. An Advisory Board, whose members will span a broad range of expertise, sectors, and geography, is being established. An Open House was held at RIT on August 22. Additional press events will be arranged at each campus, likely including elected officials, local businesses, and environmental/grass-roots organizations.

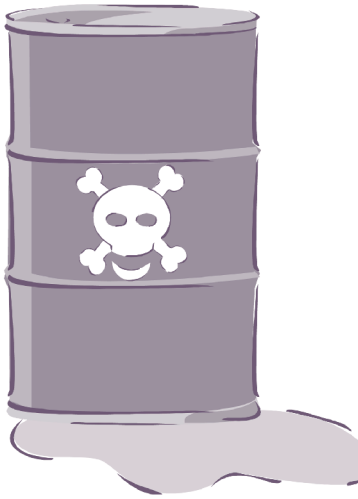
For more information contact: Tim Kirchgraber, NYS DEC (518) 408-0213, tckirchg@gw.dec.state.ny.us.

P2 Intern Program

NYS DEC has initiated a new program to connect interns with a science background to facilities/corporations that are implementing green policies and actions. Six interns worked on specific projects that reduce toxics, wastes, energy and/or water use and save money at the following facilities/organizations: Covanta Hempstead, Covanta Niagara, Covanta Onondaga, Council on the Environment of New York City, NXP Semiconductor, and Modern Landfill. The P2 Intern Coordinator conducted site visits at each facility. Each intern presented a final report at a meeting in Albany on August 14th.

For more information contact: Erica Cruden, NYS DEC (518) 402-9152, ebcruden@gw.dec.state.ny.us.

Chemical Cleanout at Schools



Chemical cleanouts were conducted at two Capital District area school science labs as a pilot project to help schools comply with environmental requirements and implement pollution prevention objectives. Various hazardous chemicals were packed in 28 containers having a total volume of 670 gallons and were successfully removed from these schools. NYS DEC's Pollution Prevention Unit is planning on conducting 11 workshops to promote chemical management and green chemistry at NYS schools from September 2008 to April 2009.

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

Small Business P2 & Compliance

The Division of Solid and Hazardous Materials, with assistance from the Pollution Prevention Unit (PPU), Environmental Facilities Corporation (EFC), Empire State Development (ESD), the New York State Energy Research and Development Authority (NYSERDA), and the P2 Council have developed an Environmental Results Program (ERP) to inspect, improve compliance, and assist the auto-body and printer sectors. The project activities include baseline inspections (which are underway), outreach, self certification, audit submission, metrics, and targeted follow-up inspections.

For more information contact: Bob Lazzara, NYS DEC (518) 402-8167, rjlazzar@gw.dec.state.ny.us.

New York Environmental Leaders Program (NYEL)

The NYEL program recognizes and provides incentives to those organizations that can demonstrate the use of pollution prevention practices beyond compliance performance or sustainable business practices. The program has a five year entry tier and a three year leadership tier that can be renewed. Applicants to the leadership tier must have an Environmental Management System (EMS) in place. Incentives include recognition and assistance for both tiers and use of the NYEL logo, an exclusive awards category in the Environmental Excellence Awards program (see description below), a specific Department contact, and a coordinated schedule and scope of routine inspections as additional incentives for the leadership tier. Marketing materials (i.e., bookmarks, one-pagers, and posters) have been developed to promote the NYEL program to prospective applicants.

NYS DEC is currently in the process of transitioning existing members of EPA's National Environmental Performance Track (NEPT) into NYEL. Applications have been received from 14 NEPT members, and the NYS DEC is in the process of reviewing these applications. An open enrollment period for all prospective members will begin in September.

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

Environmental Excellence Awards (EEA)

The 5th Annual 2008 NYS Environmental Excellence Awards (EEA) program is underway. Under the EEA program, awards are given for excellence in innovation, sustainability, and creative partnerships in business, non-profits, government, academia, and individuals. This year's application deadline was in June 2008, and 42 applications were received for consideration. Technical and compliance review is now underway by NYS DEC staff. Applications deemed technically sound will be forwarded to the external review committee for further review and analysis. A list of recommended projects will be submitted to NYS DEC Commissioner Grannis, who will make the final selections for the awards. The awards ceremony is expected to be held in December 2008.

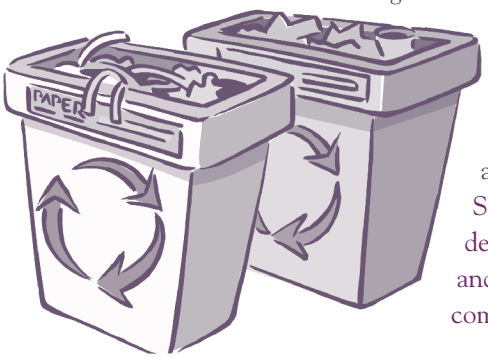
For more information contact: Marna Posluszny, NYS DEC (518) 402-9469, maposlus@gw.dec.state.ny.us.

State Green Procurement

In April 2008, Governor Paterson signed Executive Order Number 4 "Establishing a State Green Procurement and Agency Sustainability Program." The Order is applicable to all State agencies and authorities and includes two objectives:

- to procure copy paper, janitorial paper, and other paper supplies composed of 100 percent post consumer recycled content to the maximum extent possible, and
- to print publications on 100 percent post consumer paper by July 1, 2008.

In addition, an Interagency Committee on Sustainability and Green Procurement will annually develop 3 priority categories with 12 priority commodities, services, and technologies within each category by September 1, 2008 and develop specifications for these categories by December 1, 2008. The Committee shall also establish goals to achieve reductions in solid waste generated and paper consumed. Each agency and authority is to establish a Sustainability and Environmental Stewardship Program to develop projects, programs, and policies to achieve compliance with this Order.



The Order requires a training program to assist with implementation. Each agency and authority will be required to annually submit a progress report on March 1 beginning in 2009. Finally, the Order creates a Sustainability and Green Procurement Advisory Council to provide advice and assistance to the Committee.

Contracts are being awarded to meet the paper content objectives. The Interagency Committee has been created and has announced the availability of a website (see www.dec.ny.gov or www.ogs.state.ny.us) and a proposed list of categories for which specifications will be developed this year.

For more information contact: Allan Geisendorfer, NYS DEC (518) 402-8276, angeisen@gw.dec.state.ny.us.

RHODE ISLAND

Rhode Island Department of Environmental Management (RI DEM)

Hospitality Green Certification

Rhode Island Department of Environmental Management (RI DEM), in partnership with the Rhode Island Hospitality & Tourism Association, the Providence Warwick Convention and Visitors Bureau, and the Rhode Island Tourism Division, developed a Hospitality Green Certification Program, which began in the spring of 2007. The program features programs with Certification Workbooks for Lodging Facilities and for Restaurants, which were developed using Maine DEP's model (see article on page 10). In addition to certification documents and a list of certified facilities, this webpage offers other helpful information on a variety of topics relevant to these facilities.

RI DEM approved the initial certifications in April, with an awards ceremony held in April 2008 at the Rhode Island Convention Center. At that ceremony, 17 lodging facilities, 13 restaurants, and 2 other hospitality businesses received recognition and awards as the first certified green hospitality facilities under this program. Certifications will be followed by random inspections to begin in early 2009, and the point score necessary for certification will be gradually increased in future years.

For more information contact: Thomas E. Armstrong, RI DEM (401) 222-4700 x4412, Thomas.armstrong@dem.ri.gov; visit www.dem.ri.gov/programs/benviron/assist/grncert/index.htm.

Auto Salvage Yard Certification

RI DEM's Auto Salvage Yard Facilities Certification Program was introduced in May 2007, with a program that covers both regulatory requirements and best management practices. To date, RI DEM has received a response from 37 facilities that completed and submitted the multi-media checklist. This is 63 percent of the 59 auto salvage yard facilities now actively operating in Rhode Island.

University of Rhode Island Center for Pollution Prevention and Environmental Health staff have completed 36 post-certification facility site visits and audits, including 20 facilities that were randomly selected. Analysis of the results is underway, but preliminary results show marked improvements in the removal and recycling of auto mercury switches, safe storage of lead acid batteries and inspection for leaks, labeling of used oil containers, submittal of stormwater permit applications, and implementation of a written stormwater plan.

For more information contact: Thomas E. Armstrong, RI DEM (401) 222-4700 x4412, Thomas.armstrong@dem.ri.gov; visit www.dem.ri.gov/programs/benviron/assist/asy/index.htm.

POLLUTION PREVENTION P2Rx RESOURCE EXCHANGE

The Northeast A & P2 Roundtable is a member of the Pollution Prevention Resource Exchange, P2Rx, a national network of regional P2 information centers linked together to facilitate information retrieval from experts around the country.

For more information visit:
www.newmoa.org/prevention or www.P2Rx.org.

Underground Storage Tanks Alternative Inspections

Under an EPA State Innovations Grant awarded in 2006, RI DEM, in collaboration with the University of Rhode Island, is continuing 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, and to compare the costs and benefits of each approach. Over the last several months, major activities that took place included meetings and conference calls, updating of facility and tank baseline data, tabulation of 5-year historical compliance data, 2 ongoing linear regression analyses of 2004 baseline data, and ongoing interstate indicator comparative analysis. Information for the post-certification analysis was gathered as 81 of the 100 randomly-selected facilities were inspected. The project will provide data to help with an upcoming EPA response to the Energy Policy Act of 2005, which calls for a broad study of alternatives to traditional enforcement.

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

Exterior Lead Paint Removal

RI DEM's Exterior Lead Paint Removal Certification Program offers painting contractors the opportunity to certify to complying with RI DEM's Air Pollution Control Regulation # 24 (Removal of Lead Based Paint from Exterior Surfaces), as well as the federal Lead Pre-Renovation Education Rule. There are currently 43 participating contractors.

EPA issued the Renovation, Repair, and Painting Rule on March 31, 2008, with a goal of protecting children from lead-based paint hazards. This rule requires contractors that work in pre-1978 housing or child-occupied facilities to follow lead-safe work practice standards to reduce potential exposure of children to dangerous levels of lead.

Implementation of the EPA rule began in June, and all components of the rule will be in effect by June 2010. The rule is available at: www.epa.gov/lead/pubs/renovation.htm.

For more information contact: Thomas E. Armstrong, RI DEM (401) 222-4700 x4412, Thomas.armstrong@dem.ri.gov; visit www.dem.ri.gov/programs/benviron/assist/extlead/index.htm.

Narragansett Bay Commission (NBC)

Sustainable Energy for Wastewater Treatment

Municipal Wastewater Treatment Facilities (WWTF) play a vital role in the overall protection of human health and the environment by reducing the impact of municipal wastewater discharges on local receiving waters. Two problems common to almost all WWTFs today is the consumption of large amounts of energy and the management of grease that enters the sewer through residential and commercial (food processing industry) wastewater discharges. Large energy use is costly and results in the generation of greenhouse gas emissions from the burning of fossils fuels, and grease laden wastewater causes sewer blockages and overflows and is both difficult and expensive to treat.

This fall the Narragansett Bay Commission (NBC), the Rhode Island Department of Environmental Management (RI DEM), the University of Rhode Island (URI), and the Rhode Island Manufacturers Extension Service (RIMES) (the Project Partners) will initiate a project that addresses these two important concerns. Using $275,000 in grant funds awarded through the EPA's States Innovation Program, the Project Partners will be developing and implementing a Sustainable Energy Focused Environmental Management System (EF-EMS) Program for WWTF, based on the well established ISO 14001 Environmental Management System (EMS) "Plan-Do-Check-Act" approach. The project will also develop and implement an Environmental Results Program (ERP) designed to improve the management and collection of waste fats, oil, and grease (FOG) generated by restaurants and food processing operations. For the purposes of this project, a WWTF Sustainable EF-EMS is recognized as consisting of practices, procedures, policies, and technologies that will continuously support and sustain WWTF operations indefinitely into the future. A successfully implemented Sustainable EF-EMS Program will reduce the consumption of non-renewable energy resources while preventing or at least minimizing overall environmental impacts.

The Sustainable EF-EMS component of this project has been designed to address the energy use of Rhode Island's 19 WWTFs utilizing EPA's guidance manual *Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities*. The Sustainable EF-EMS component will consist of establishing a Project Steering Committee, investigating renewable energy opportunities, training WWTF personnel on the use of the guidebook and EPA's Energy Star Portfolio Manager tool, and establishing an EF-EMS Roundtable that will meet on a regular basis throughout the project period to help coach each participating WWTF with developing their own individualized WWTF EF-EMS. The Project Partners will conduct on-site energy use assessments of each participating WWTF.

Based on information gained through various historical and on-going NBC energy management projects and activities, this project could improve the energy efficiency of participating WWTFs by a minimum of 5 to 10 percent and decrease a participating WWTF's energy demand from the local power grid as much as 10 to 20 percent by using available renewable energy resources. By reducing the energy demand of participating WWTFs through more efficient energy use and the use of renewable energy sources, the project will reduce the generation of greenhouse gases while accomplishing the same or better level of wastewater treatment.

The ERP component has been designed to help reduce problematic FOG discharges to the NBC sewer system with a focus on utilizing collected FOG as a renewable energy resource through the production of bio-diesel and/or biogas (methane). ERP activities will include on-site "before and after" FOG management assessments of each restaurant serviced by the NBC, development and use of FOG BMPs, and a self-certification process. Anticipated project results associated with the ERP approach include increased use of identified waste FOG BMPs by participating restaurants, an increase in the quantity of waste FOG being used for bio-diesel production in Rhode Island, and a decrease in FOG detected at the head-works of NBC's two WWTFs. Other quantifiable measurements will be determined during an initial "Baseline Performance Assessment" conducted at the onset of the ERP. Project activities are scheduled to begin in October 2008.

For more information contact: James McCaughey, NBC (401) 461-884 x 352.

Pollution Prevention News!

NEWMOA's Pollution Prevention Resource Exchange (P2Rx) Center collects and publishes online assistance and P2-related news items. P2News is frequently updated – so check in regularly.

www.newmoa.org/prevention/p2news/

VERMONT

Vermont Department of Environmental Conservation (VT DEC)

Spill Prevention Control & Countermeasures Workshops

VT DEC's Environmental Assistance Office is hosting a series of Spill Prevention Control and Countermeasures (SPCC) workshops for businesses, municipalities, and other entities during the month of October. VT DEC has developed a SPCC Model Plan and Guidance Document as well as a SPCC Frequently Asked Questions fact sheet to aid in compliance.

For more information visit: www.anr.state.vt.us/dec/ead/sbcap/workshops.htm#DECWorkshops.

Environment 101 Seminars

In September, the VT DEC Environmental Assistance Office and the Vermont Small Business Development Center will be offering five introductory environmental compliance seminars throughout the state. The target audience is small business and municipal employees, and the sessions will provide an overview of common environmental compliance issues, including fuel storage, SPCC, hazardous waste, floor drains, wastewater, stormwater, environmental permitting, and air quality.

For more information contact: John Daly, VT DEC, john.daly@state.vt.us

Vermont Business Environmental Partnership

The Vermont Business Environmental Partnership has certified seven new businesses as Environmental Partners since October 2007 and is working with eight more facilities in achieving program standards. The program currently has 50 Environmental Partners and 2 Environmental Leaders in the program. The Green Hotels Program for lodging establishments has added 21 new partners since October and now has 81 lodging properties, with over 2,300 guest rooms, as Green Hotels and Environmental Partners. Program focus areas include environmentally preferable purchasing and carbon footprint reduction.

The 3rd Annual *Greening Up Your Bottom Line Conference* will be held in Burlington on September 26, and will include the following topics: energy efficiency; alternative & renewable space heating systems; measuring your carbon footprint; greening up your office; greener printing options; choosing environmentally friendly electronics products; and a speed greening and poster session. This event is sponsored by: Green Mountain Power; Green Mountain Coffee Roasters; VT Electric Power Co. (VELCO); The Vermont Sustainable Jobs Fund; Cabot Creamery; the VT Business Magazine; the VT Business Environmental Partnership (VT Small Business Development Center and VT DEC); Efficiency Vermont; Hall Communications, and the Vermont Chamber of Commerce.

For more information visit:
www.vbep.org/greenUp_2008.html.

Governor's Awards

Nominations and applications are being accepted until October 31 for the 2008 Annual Governor's Awards for Environmental Excellence and Pollution Prevention. Since its inception in 1993, over 100 award winning efforts have been recognized, in addition to new members of Vermont's Green Hotels in the Green Mountain State. There are seven award categories, with a newly added category for Sustainability Initiatives.

For more information visit: www.anr.state.vt.us/dec/ead/gap/index.htm.

Science on the Green

The VT Agency of Natural Resources is sponsoring the third annual Science on the Green event in Waterbury, geared toward 4th to 8th grade students, to learn about environmental science. This popular event features field trips and workshops related to geology, watersheds, waste, drinking water, as well as trips to local businesses including Ben and Jerry's and Green Mountain Coffee Roasters to learn about sustainable business practices. Always popular are field trips to the local wastewater treatment plant. Agency staff and employees work hard to run the workshops and various events and to provide as sustainable an event as possible. In the first year, 450 teachers and students participated, and in year 2 over 650 were hosted.

For more information visit:
www.anr.state.vt.us/site/html/sotg/.

Mercury Thermostat Legislation

The Vermont Legislature passed legislation requiring mercury thermostat manufacturers (only original equipment manufacturers) to pay a $5 financial incentive for mercury thermostats turned in to wholesale and retail outlets as well as municipal solid waste districts. Vermont became the second state in addition to Maine with a bounty provision. VT DEC conducted a successful two-month mercury thermostat collection pilot project in 2007 that demonstrated the effectiveness of a financial incentive in increasing mercury thermostat collection.

Under the law, thermostat manufacturers must submit thermostat collection plans by October 1 and implement the program by April 1, 2009. Wholesalers of mercury thermostats are required to serve as collection points. Retailers are required to participate in an education and outreach program but may voluntarily serve as collection points.

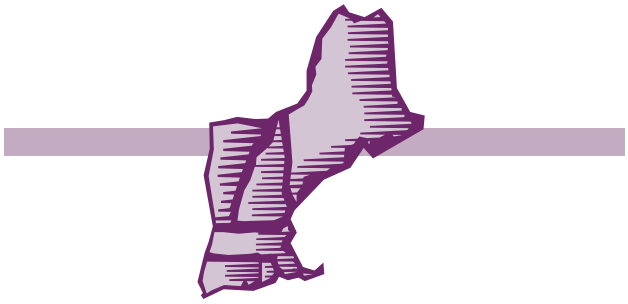
VT DEC is currently involved in outreach to wholesalers, retailers, and municipal solid waste districts about the program and expects many retailers and municipalities to participate at collection locations. VT DEC is coordinating on implementation with Maine DEP to ensure as much consistency as possible with collection programs.

For more information contact: Karen Knaebel, VT DEC, karen.knaebel@state.vt.us.

Mercury Sugaring Thermometer Exchange

Vermont DEC and the Agency of Agriculture, Food & Markets is conducting a mercury thermometer exchange with Vermont maple sugaring operations throughout the state. A total of 141 maple sugaring operations signed up to exchange over 250 mercury syrup or candy thermometers for a free digital replacement thermometer. The exchange was kicked off in July at a three-day maple event sponsored by the Vermont Sugarmakers Association, who was also active in promoting the exchange through various events and mailings. The Chittenden Solid Waste District has donated their assistance for the recycling of the mercury thermometers and utilizing their mobile hazardous waste "Rover" vehicle. Other exchanges are planned in the coming months. The VT DEC hopes that 300 thermometers will be exchanged by year's end.

For more information contact: Karen Knaebel, VT DEC, karen.knaebel@state.vt.us



EPA REGION 1 - NEW ENGLAND

Energy Roundtable for Water & Wastewater

Thirteen Massachusetts water and wastewater treatment plants have signed up to participate in an Energy Roundtable. The first of four Roundtable meetings to be held over the next nine months is scheduled for September 23 at the Worcester, MA Public Library. The Roundtable will build on both the Mass DEP Energy Pilot Project and the EPA Office of Water sponsored Energy Management workshops. Using EPA's Energy Management Guidebook, the Roundtable will walk utilities through the process of developing an energy management plan.

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

Collision Repair Campaign

EPA's Collision Repair Campaign (CRC) is a two-year outreach initiative for the auto body sector that promotes early compliance with new air emission standards and voluntary reductions in toxic chemical releases. In September, EPA Region 1-NE will launch an initial round of workshops for auto body businesses that feature best practices, pollution prevention techniques, and the new rule's requirements. By attending the workshops, auto body shops will obtain a certificate verifying that they have completed the classroom training, as required under the new rule. EPA will also hold a free train-the-trainer half-day workshop and webinar for state enforcement and assistance staff, municipal employees, collision repair businesses, and community organizations.

The Collision Repair Campaign (CRC) website describes exposures and health effects from chemicals found at collision repair shops; links to information about best practices; features tools for calculating cost savings that accompany reductions in emissions, and includes downloadable manuals and videos.

For more information contact: Roy Crystal, EPA Region 1-New England (617) 918-1745, crystal.roy@epa.gov; visit www.epa.gov/ttn/atw/area/psmc_fr_fs121407.pdf and www.epa.gov/air/toxicair/community/collision.html.

Schools Chemical Cleanout

EPA's national Schools Chemical Cleanout Campaign plans to release a short video on their website this fall, which will focus on helping school decision makers improve their chemical management practices. Included in this video will be footage of both school contacts and members of Rhode Island's Chemical Safe Schools Committee, as well as school contacts and industrial representatives from the western United States.

For more information contact: Joan Jouzaitis, EPA Region 1-New England (617) 918-1846, Jouzaitis.Joan@epa.gov; visit www.epa.gov/sc3.

NEW PUBLICATIONS & EDUCATIONAL MATERIALS

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

MA OTA E-Newsletter

In July, MA OTA introduced "OTA Outlook," an electronic newsletter that focuses on best practices in toxics use reduction, pollution prevention, and energy efficiency and water conservation. The newsletter highlights MA OTA efforts to help companies comply with toxics use regulations and adopt innovative technologies that improve their operational efficiency and competitiveness.

www.mass.gov/envir/ota/publications/ota-outlook/vol1-1.html

Spray Booths

MA OTA has prepared a downloadable summary of the new EPA air emissions spray booth regulations, "Guidelines for Compliant Spray Booth Operation."

www.mass.gov/envir/ota/publications/pdf/spray_booth_final.pdf.

Barriers to Toxics Use Reduction/P2

MA OTA has completed a report entitled "The Assessment of Barriers to Toxics Use Reduction, Pollution Prevention and Resource Conservation." The 2006 Amendments to the Toxics Use Reduction Act charged MA OTA with assessing barriers to business implementation of toxics use reduction, pollution prevention, and resource conservation. MA OTA found that the primary reasons that companies are not adopting these practices appear to be concerns about costs and possible negative impacts on the quality of their product. Actions that may be effective in increasing adoption of toxics use reduction include: trials and demonstrations coupled with cost-benefit information, correcting perceptions, stronger incentives, tax breaks, and better regulatory drivers.

www.mass.gov/envir/ota/resources/pdf/barriers_to_tur.pdf

P2 Guide

The New Hampshire Department of Environmental Services Pollution Prevention Program has released an updated version of *Planning for Profits…A Guide to Pollution Prevention for NH Businesses*. The way to 'Go Green' is to implement ongoing, systematic environmental improvement procedures that create an environmental "movement" throughout the entire organization. Businesses can use the DES *"Planning for Profits"* as a guide to set up systematic procedures to eliminate or reduce wastes at their source – before they become pollutants or lost resources.

www.des.nh.gov/nhppp/pdf/planning_for_profits.pdf

Perchlorate Video

A MA TURI Community grantee, the Cape Cod Cooperative Extension in Barnstable, developed a video as part of their project to raise awareness about the dangers of water contamination from perchlorate in flares. The eight-minute video features testimonials from Cape Cod police and emergency personnel about the benefits of using light emitting diode (LED) flares instead of perchlorate flares.

www.xrl.us/FlareVideo

Chemical Fact Sheets

MA TURI recently updated two new chemical fact sheets—Cadmium and Cadmium Compounds and Trichloroethylene (TCE). These three chemicals were designated as higher hazard substances by the Massachusetts Administrative Council in December 2007. Companies that use at least 1,000 pounds of these chemicals annually must now report their use to the MassDEP and prepare toxics use reduction plans.

www.turi.org

NEW PUBLICATIONS & EDUCATIONAL MATERIALS

Continued resources

New Toxics Web Sites

MA TURI works with University of Massachusetts students and professors to integrate the concept of toxics use reduction into learning. A recent result is an art student-developed web site that includes creative public service announcements about toxics in household products and safer alternatives. The site also contains games about going green. MA TURI conducts trainings about how to reduce toxics in household products for public health outreach workers. This information is now compiled on an easy to understand web site that describes less and non-toxic alternative products.

www.greenanswer.org and www.toxfreehome.org

Email Updates from MA TURI

Stay up to date on toxics and alternatives by signing up for email updates from MA TURI. Visit MA TURI's web site at and select specific topics for emails.

www.turi.org

Review & Assessment of Thermostat Recycling Activities in the Northeast

MassDEP contracted with the Northeast Waste Management Officials' Association (NEWMOA) to complete an assessment of mercury-added thermostat collection and recycling programs to identify mechanisms that could be used to enhance the recycling of these products in Massachusetts and elsewhere.

www.newmoa.org/prevention/mercury/ThermostatRecyclingReport2008.pdf

Trends in Mercury Use in Products

A new reports summarizes mercury use in products sold in the United States in 2001 and 2004 from information submitted by hundreds of manufacturers of switches and relays, dental amalgam, thermostats, lamps, thermometers and other measuring devices, batteries, and chemicals. The report identifies trends in mercury use in these product categories.

www.newmoa.org/prevention/mercury/imerc/pubs/reports.cfm

EPA REGION 2

Green Chemistry in the Pharmaceutical Industry

EPA Regions 2 and 3, in collaboration with the EPA Headquarters Office of Pollution Prevention and Toxics, and other Regions have been promoting pollution prevention and stewardship in the pharmaceutical sector through the application of green chemistry and green engineering concepts and tools to pharmaceutical manufacturing processes. As part of this effort, EPA Region 2 hosted a video conference titled "Creating Business Value: Green Quality through Green Chemistry and Green Engineering in the Pharmaceutical Industry." The event took place in July 2008.

EPA through its past efforts and relationship building has been interested in technical opportunities to enhance green quality, especially solvent recovery and reuse within facilities and third party markets related to opportunities for solvent exchange. In addition, EPA is interested in the associated total life cycle improvements that can be achieved, such as energy conservation and greenhouse gas (GHG) emission reductions, all of which are possible through joint collaboration. During the video conference, three presentations were provided. In addition, there was a follow-up discussion with an audience of industry and government representatives interested in pharmaceutical manufacturing in Puerto Rico. There were approximately 30 participants at video conference locations in: San Juan, Puerto Rico; Philadelphia; and New York City. The

event was coordinated with special assistance from EPA Region 2 Caribbean Environmental Protection Division and EPA Region 3 as well as with critical technical support by EPA's Office of Pollution Prevention and Toxics. The presentations and supporting information, speakers, and the list of participants will be provided at www.epa.gov/region02/p2/p2res.htm under "pharmaceuticals."

For more information contact: Walter Schoepf, EPA Region 2 (212) 637-3729, schoepf.walter@epa.gov.

Environmental Impacts of Lodging Facilities

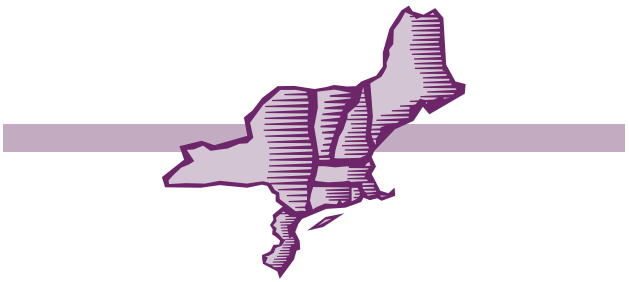
A quantitative assessment of the environmental resource impacts (i.e., kWh of energy consumed, liters of water used, and pounds of solid waste generated) of lodging facilities in EPA Region 2 was recently completed as part of EPA Region 2's Hospitality Sector P2 and Stewardship Initiative. Calculations were more precise for Puerto Rico than for New York, New Jersey, and the U.S. Virgin Islands due to time and resource constraints and unique environmental and institutional features of Puerto Rico.

The study reveals that energy, water, and solid waste impacts from the lodging sector are greatest in the Adirondacks, Finger Lakes, New York City, and Hudson Valley Regions in New York and Cape May, Atlantic, and Ocean Counties in New Jersey. The cities of Charlotte Amalie, Christiansted, and Cruz Bay in the U.S. Virgin Islands are characterized by the most resource-intensive accommodations facilities. Resource utilization by the lodging sector is most intense in Puerto Rico's East and North Sub-regions, especially the municipalities of Carolina and Vieques in the East and San Juan in the North.

Results will guide the application of EPA's P2-oriented partnership programs (e.g., ENERGY STAR, WaterSense, and WasteWise) to target those areas in need of most assistance. This project serves as a case study, which may be replicated throughout Region 2 to direct application of other voluntary partnership programs.

This analysis was completed as part of an EPA National Network for Environmental Management Studies (NNEMS) Fellowship Project.

For more information contact: Joseph Bergstein, EPA Region 2 (212) 637-3890, bergstein.joseph@epa.gov.



NORTHEAST ASSISTANCE & P2 ROUNDTABLE

11 Percent Reduction in Mercury Use in Products

The Interstate Mercury Education and Reduction Clearinghouse (IMERC), a program of the Northeast Waste Management Officials' Association (NEWMOA), has published a report showing that mercury use in products sold in the U.S. declined from 131 tons in 2001 to 117 tons in 2004, an 11 percent reduction. The study, *Trends in Mercury Use in Products: Summary of the Interstate Mercury Education and Reduction Clearinghouse (IMERC) Mercury-added Products Database* summarizes mercury use in products sold in the United States in 2001 and 2004 from information submitted by hundreds of manufacturers of switches and relays, dental amalgam, thermostats, lamps, thermometers and other measuring devices, batteries, and chemicals. The purpose of the report is to identify trends in mercury use in these product categories and opportunities for further reductions and improvements in the collection and recycling of mercury waste from products. Key findings include:

- Switches, relays, and dental amalgam capsules accounted for approximately 70 percent of the total mercury use in 2001 and 2004 for the U.S.
- In 2001, approximately 60 tons of mercury was sold in switches and relays, which declined to approximately 51 tons in 2004.
- Approximately 30 tons of mercury was sold in dental amalgam in 2001 and 2004, with no substantial change in the two reporting years.
- Approximately 15.5 tons and 15 tons of mercury were sold in thermostats in the U.S. in 2001 and 2004, respectively.

- In 2001, lamp manufacturers sold approximately 10.7 tons of mercury in mercury-added light bulbs. This decreased by 0.6 tons in 2004, representing a 6 percent decline.
- Measuring devices, such as barometers, manometers, and sphygmomanometers, contained the largest amounts of mercury in individual products, and these products accounted for 4.5 percent of the total in 2001 and 4 percent of the total in 2004.
- In 2001, approximately 3 tons of mercury was used in button cell batteries, which decreased by 0.4 tons to 2.6 tons, or approximately 14 percent, in 2004.
- Product manufacturers reported that they eliminated 11.6 tons of mercury from products sold in the U.S. from 2002 to 2006.

The new report, funded by a grant from U.S. EPA, is the most recent comprehensive analysis of trends in mercury use in products sold in the U.S. over multiple reporting periods. The data used in the report is available in the Mercury-added Products Database (www.newmoa.org/prevention/mercury/imerc/Notification/index.cfm), which is managed by IMERC. Through a better understanding of the product information contained in this IMERC database, states, local governments, and the public can focus on specific policies and programs to maximize their efforts in reducing mercury contamination in the environment.

For more information visit: www.newmoa.org/prevention/mercury/imerc/pubs/reports.cfm.

Mercury Legacy Products

NEWMOA has prepared a series of web pages that provides information about the past and current uses of mercury-added legacy products (www.newmoa.org/prevention/mercury/projects/legacy/index.cfm), including photographs, types of situations in which the products were typically used, the location of mercury in the product, and information on their proper handling, removal, and disposal. The term "legacy product" refers to a mercury-added product that is no longer sold as a new product in commerce in the U.S., but may still be in use, may be resold as a used or antique product, or if not being used may be stored in homes or businesses. The website covers the following consumer product categories: antiques, automobiles, household products and appliances, novelties, religious items and the ritual use of mercury, and sport/recreational equipment; and the following commercial product categories: hospital equipment, measuring devices, and schools and other commercial building equipment. These products may be subject to waste disposal restrictions because of their mercury content. Some states also restrict the re-sale of these products.

The website was developed under a contract with the MassDEP to assist that agency in implementing the Massachusetts Mercury Management Act; therefore, the initial set of products focuses on those that are affected by the Massachusetts law. Certain categories of products are not addressed because they are not regulated by this law. For example, the website does not include legacy products with mercury only in a mercury-containing lamp or button-cell battery (e.g., many electronic products) or formulated mercury-added products (i.e., chemical products such as reagents and preservatives).

There may be mercury-added legacy products about which there is little, if any, available and reliable information that NEWMOA was able to find. NEWMOA is interested in updating the information presented on its website, and adding information about additional mercury-added legacy products.

For more information contact: Rachel Colella, NEWMOA (617) 367-8558 x304 rcolella@newmoa.org; visit www.newmoa.org/prevention/mercury/projects/legacy/index.cfm.

P2Rx™ Rapid Response

The Rapid Response Service is provided as an aid to locating P2 information and answering technical P2 questions. NEWMOA's engineering staff field requests and, in consultation with other P2Rx Centers, performs research of P2Rx resources and the internet. They then forward any relevant information they find to the person making the request.

For more information visit: www.newmoa.org/about/library.cfm or call (617) 367-8558 x306

P2 Awards Recipients Well Represented by Northeast States

Winners at the September 18, 2008 National Pollution Prevention Roundtable (NPPR) Most Valuable Pollution Prevention (MVP2) awards ceremony that are from Northeast states are described below.

Volunteer of the Year Award – Sara Johnson (NH DES)

Sara has contributed to pollution prevention development and implementation in the following ways:

- ***Tribal Workgroup:*** Sara has served as NPPR Board liaison to the Tribal Workgroup for the past 18 months.
- ***Membership Committee:*** Sara heads the Membership Committee of the NPPR Board.
- ***Summit Planning:*** Sara has contributed to the annual Summit planning by being actively involved in topic area planning, session recruiting, and selection.

P2 Champion Award – Joel Tickner (University of Massachusetts – Lowell)

Professor Tickner has been supporting the NPPR's efforts to help inform its members on the development of states chemicals policy. He has worked closely with the P2 Policy and Integration Committee, including helping to organize a workshop at the 2008 Summit. Joel has also been instrumental in getting the NPPR and the Green Chemistry and Commerce Council (GC3) to work collaboratively on a joint project on business incentives to advance green chemistry innovation. Finally, under Joel's leadership, the Lowell Center for Sustainable Production published a "State Chemicals Policy Options" report in early 2008.

P2 Programs Award – New England Mercury Task Force

Co-Chairs: Stephanie D'Agostino, New Hampshire Department of Environmental Services Pollution Prevention Coordinator; Mark Smith, Massachusetts Department of Environmental Protection. Members:

- Robert Kaliszewski and Robert Hannon, Connecticut Department of Environmental Protection
- Ginger Jordan-Hillier, Maine Department of Environmental Protection
- Ron Gagnon, Rhode Island Department of Environmental Management
- Gary Gulka and Karen Knaebel, Vermont Department of Environmental Conservation
- John Shea, New England Governors' Conference
- Interstate Mercury Education and Reduction Clearinghouse (IMERC) (a program of NEWMOA)

Over the past 10 years, states in the Northeast United States, including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont have put tremendous effort into regional initiatives to reduce mercury in the environment. In 1998 the New England Governors (NEG) and Eastern Canadian Premiers (ECP) Committee on the Environment formed a regional task force with a goal of virtually eliminating all in-region human-related sources of mercury emissions, wastes, and discharges. The Northeast states, through their state mercury reduction programs, are achieving significant and rapid reductions in mercury releases from in-region pollution sources, these reductions are resulting in lower accumulated mercury levels in the environment.

P2 Programs Award – Massachusetts Toxics Use Reduction Act Program

The Massachusetts Toxics Use Reduction Act (TURA) will celebrate its 20th anniversary in 2009. TURA's goal is safer and cleaner production and services that enhance the economic viability of Massachusetts firms and advance healthier communities and workplaces. The framework to achieve this goal is mandatory reporting on toxics use, facility planning for Toxics use reduction (TUR), and community right-to-know. The three MA TURA program partners and their services include:

The MA Office of Technical Assistance and Technology (OTA) within the state Executive Office of Energy and Environmental Affairs offers on-site, confidential TUR, water and energy conservation assistance, combined with specific advice on compliance with environmental regulations.

The MA Toxics Use Reduction Institute (TURI), located at the University of Massachusetts Lowell, manages the Science Advisory Board (SAB) and makes recommendations on chemical categorization or listing to the TURA program; conducts technology research, development, and support for adoption; trains TUR Planners and offers continuing education conferences; provides grants to industry and communities for TUR projects and demonstrations; houses a unique library; and tests the performance of safer cleaners and cleaning alternatives.

The Massachusetts Department of Environmental Protection (MassDEP) is the compliance and enforcement agency for the TURA program providing program regulations and policy and reporting forms and guidance. MassDEP collects the toxics use data reported annually by companies. It also offers the examination for TUR Planners and provides official certification of qualified Planners.

For more information visit: www.P2.org.

NORTHEAST ASSISTANCE & P2 CALENDAR

TITLE	SPONSOR	DATE / LOCATION	CONTACT
Collision Repair Campaign - Train the Trainer Workshop	EPA Region 1	September 18; Chelmsford, MA	Crystal.roy@epa.gov
Recycling Expo	National Recycling Coalition	September 21-24; Pittsburgh, PA	http://events.jspargo.com/nrc08/public/enter.aspx
LogiChem 2008	Worldwide Business Research	September 22-24; Atlanta, GA	www.wbresearch.com/logichemusa/index.asp
6th Annual Solid Waste & Recycling Conference	Massachusetts Chapter of SWANA	September 23; Marlborough, MA	www.swana.org
Greening Up your Bottom Line (3rd Annual Conference)	VT SBDC	September 26; Burlington, VT	www.vtsbdc.org/green.cfm
AltWheels Fleet Day	Staples, Inc. & EPA-New England	September 29; Framingham, MA	www.altwheels.org/
Automotive Coatings: Materials & Applications	SAE International	October 1-3; Troy, MI	www.sae.org
Hospitals Going Green	Massachusetts Hospital Assoc.	October 3; Waltham, MA	www.mhalink.org/MeetingBroc
Renewable Energy from Organics Recycling	Biocycle	October 6-8; Madison, WI	www.biocycle.net
EPP Vendor Fair	Massachusetts Operational Services Division	October 7; Worchester, MA	www.mass.gov/EPPFAIR
Community College Summit	Green California	October 8-9; Pasadena, CA	www.greentechnology.org/ccsummit/index.html
Laboratory Ventilation & Design	Labs for the 21st Century	October 9; Boston, MA	www.labs21century.gov/training/designcourse/boston.htm
North American Hazardous Materials Management	NAHMMA	October 13-17; Burlington, VT	www.nahmma.org
Biofuels & Sustainability Conference	ISTC	October 21-22; Champaign, IL	www.istc.illinois.edu/BiofuelsConference
WASTECON 2008	SWANA	October 21-23; Tampa Bay, FL	http://wastecon.swana.org/
Greenable Cleanable Eastern Connecticut	University of Connecticut Health Center	October 24; Uncasville, CT	www.oehc.uchc.edu/images/PDFs/GreenableCT.pdf
Water Reuse in Agriculture	WateReuse Association	October 26-28; Monterey, CA	www.watereuse.org
Northeast Recycling Council Fall 2008 Conference	NERC	October 28-29; Northampton, MA	www.nerc.org
WasteWise & NPEP Conference	WasteWise, NPEP	October 29-30; Arlington, VA	www.epa.gov/wastewise/
AASHE 2008 Conference: Working Together for Sustainability – On Campus & Beyond	AASHE	November 9-10; Raleigh, NC	www.aashe.org/conf2008/
2008 International Symposium of Pharmaceuticals in the Home & the Environment	Maine Benzodiazepine Study Group	November 10-11; South Portland, ME	www.mainebenzo.org/2008conference.htm
Green Engineering & Sustainability in the Pharmaceutical Industry	EPA, AIChe, and others	November 16-21; Philadelphia, PA	www.aiche.org/Conferences/AnnualMeeting/T5.aspx
Green Build International Conference & Expo	US GBC	November 19-21; Boston, MA	www.greenbuildexpo.org/
Continuing Education Conference	MA TURI	November 20; Framingham, MA	www.turi.org/content/view/full/5866
Resource Conservation Training	MA TURI	December 3, 2008; Leominster, MA	www.turi.org
Biodiversity in a Rapidly Changing World	National Council for Science & the Environment	December 8-10; Washington, DC	http://ncseonline.org/conference/biodiversity/
USCC 17th Annual Conference & Tradeshow	US Composting Council	January 26-29; Houston, TX	www.compostingcouncil.org
Energy & Environment Conference & Expo	EUEC	February 1-4; Phoenix, AZ	www.euec.com
Renewable Energy Technology Conference	ACORE	February 25-27; Las Vegas, NV	www.retech2009.com
Ceres Conference 2009	Ceres	April 15-16; San Francisco, CA	www.ceres.org/events
National Environmental Partnership Summit	NPPR	May 4-8; San Francisco, CA	www.p2.org

For more up-to-date listings of upcoming events, visit www.newmoa.org

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NORTHEAST ASSISTANCE & POLLUTION PREVENTION NEWS

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