Greening Government

Are you the person in your office that is constantly reminding your co-workers to recycle? Do you go around turning off computers at the end of the day? Do you want your workplace to be as green as you are? You’re not alone. In a survey commissioned by National Geographic in February 2008, more than 80 percent of U.S. workers polled said that they believe that working for a company or organization that makes the environment a top priority is important. As a result, institutions, government agencies, and businesses are greening their operations and products and forming “green teams” to reduce waste generation, start recycling programs, reduce energy, organize carpools, and much more.

Local, state, and federal environmental agencies in the Northeast are increasingly promoting green practices to a wide variety of audiences within their jurisdictions while at the same time developing initiatives to “walk the talk” and demonstrate sustainability leadership. The programs described below have initiated a wide variety of greening government approaches that provide models from which others can learn.
**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 that helps achieve a clean, healthy, and sustainable environment by exploring, developing, promoting, and implementing environmentally sound solutions for:

- Reducing materials use and preventing pollution and waste,
- Properly reusing and recycling discarded materials that have value,
- Safely managing solid and hazardous wastes, and
- Remediating contaminated sites.

The group fulfills this mission by providing a variety of support services that:

- Facilitate communication and cooperation among member states, between the states and the U.S. EPA, and between the states and other stakeholders;
- Provide research on and evaluation of emerging issues, best practices, and data to help state programs maximize efficiency and effectiveness; and
- 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 (NEA & P2 Roundtable). This program involves the following components:

- NEA & 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:
Terri Goldberg, NEWMOA (617) 367-8558 x302, tgoldberg@newmoa.org, visit www.newmoa.org/prevention.

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**Connecticut**

The Connecticut Department of Environmental Protection (CT DEP) established a team to green the agency in 1995. Originally known as the Pollution Prevention (P2) Work Group, the group recently changed its name to the Green Team to reflect its current mission to implement the Commissioner's Conservation Plan. The goals of the Plan are to reduce energy, waste, and greenhouse gas emissions; measure progress; and make CT DEP a model for other state agencies.

The Green Team is made up of volunteers from a cross-section of departments and jobs. They work closely with the building manager and cleaning crew to ensure that recycling, composting, and special projects like building-wide cleanouts, achieve the highest results. The Green Team is further organized into committees that roughly correspond with sections of the Plan. The committees currently include Energy Efficiency, Green Purchasing, Education, Building Improvements, Reducing Water, the ReSupply Center, and Floor Teams. While the full Green Team meets monthly, committees meet individually and work on specific projects.

**Composting**

The Green Team is celebrating the 11th year of composting food waste at the CT DEP Headquarters in Hartford this year. Over 43 tons of food waste has been diverted from the trash during this time, providing finished compost for gardens at state parks.
Office Supplies
The ReSupply Center came about as a result of a major building-wide clean-out in May 2008. Over a two week period, CT DEP employees recycled 13 tons of paper, and collected hundreds of binders, thousands of paper clips, and other office supplies, all in good condition. At the time, there was no central location to store these reusable materials so the Green Team made this a priority, locating space in the building that could be dedicated to creating a ReSupply Center. They solicited the extra supplies stored in cabinets and boxes throughout the building from last year’s cleanout, sorted and organized them, and launched the Center on Earth Day 2009. Extra non-state property like the three-ring binders received from permit applicants or the plastic spirals from reports are donated to schools and non-profits for art projects and other uses. The ReSupply Center has saved the State hundreds of dollars by avoiding purchase of new office supplies and eliminated the pollution caused by creating and transporting new supplies.

Electronics/Computers
CT DEP joined the Northeast States Electronics Challenge in 2008, refreshing its old computers with over 700 “green” computers that meet the Silver Electronic Product Environmental Assessment Tool (EPEAT) rating. Since purchasing is the responsibility of the Department of Information Technology (DOIT), CT DEP’s Green Team requested that DOIT change the bid requirements for state purchased computers so that at a minimum, all state purchased computers meet the Silver EPEAT rating. An end-of-life contract is covered by the Department of Administrative Services (DAS), and the Green Team will be working with them to ensure the highest standards for recycling of the state’s electronic components.

Other Products
Finally, the Green Team seeks to increase the amount of environmentally preferable products (EPP) purchased by CT DEP and other state agencies. The DAS website is a resource to identify these items, including cleaners that must meet Green Seal or Ecologo standards and copy paper with 30 percent minimum post-consumer recycled content. In the upcoming year, the Team will be expanding the list of items purchased in-house that meet EPP criteria, including lined notepads, sticky notes, and correcting fluid. For more information, contact: Connie Mendolia, CT DEP (860) 424-3243; Mary Sherwin, CT DEP (860) 424-3246.

Maine
The Maine Department of Environmental Protection’s (DEP) P2 Program Manager reviews all vendor contracts and requests for proposals to ensure that they meet what the State considers to be “environmentally preferable products,” based on the following nationally-recognized certification programs and policies:

• Green Seal’s certification for applicable cleaning chemicals (GS 37, 41);

• Electronic Product Environmental Assessment Tool’s (EPEAT) rating of electronic equipment (silver-rated or better), and participation with the Northeast Recycling Council’s State Electronics Challenge to track purchases and measure the benefits to the environment from new purchases; and

• Leadership in Energy and Environmental Design’s (LEED) existing building (EB) standard for mercury in lamps and lighting products.

The results of these efforts are described below.

Cleaning Chemicals
Using EPA’s Green Cleaning Pollution Prevention Calculator, Maine DEP estimates that 4,697 pounds of cleaning chemicals, 928 pounds of which are considered hazardous chemicals, have been reduced by switching to environmentally preferable cleaning products. In the past year, the State has purchased 285 gallons of environmentally-preferred cleaning products, certified by Green Seal.

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**Electronics/Computers**
The Northeast Recycling Council, using EPA's Electronics Environmental Benefits Calculator, calculated the following reductions resulting from Maine's switch to EPEAT-rated products:

- 1.64 million kilowatt hours (kWh) of energy, which is equal to the amount of electricity needed to power 144 households annually;
- 126.1 metric tons of carbon equivalents (MTCE) of greenhouse gas emissions, which is equal to removing 100 passenger cars from the road per year;
- 8.1 metric tons of municipal solid waste, which is equal to the amount of waste generated by 4.2 households annually;
- 3 metric tons of hazardous waste;
- 181.7 pounds of toxic chemicals used in the production of these products, including persistent bio-accumulative toxins, lead, and mercury; and
- 0.02 pounds of mercury, which is equal to 17.4 mercury fever thermometers.

**Electronics/Lighting**
Building managers are responsible for maintaining the average weighted load of mercury within lighting products as established by LEED certification and as required by Maine's Executive Order for buildings to conform to the LEED EB standard. A Request for Proposals (RFP) for low mercury fluorescent lamps yielded five bids from vendors, one of which was awarded in late December 2007. Bids were required to state the amount of mercury in each product so building managers could have a reference for determining strategies for addressing lighting needs in their respective buildings.

**Energy**
Maine's Executive Order establishing the Clean Government Initiative established a goal for the State to purchase 40 percent of the electricity it consumes from renewable resources. At the time of initial bidding in 2003, the State government required that the 30 percent of power come from renewable resources. Since July 2006, the State has purchased renewable energy credits to cover the remaining 70 percent, making Maine the first state in the nation to purchase 100 percent of its electricity from renewable sources. The additional 70 percent was purchased from 80,000 megawatt hours of renewable energy credits from Maine Hydro. This offset reduced approximately 64 million pounds of carbon dioxide, 113,000 pounds of nitrogen oxide, and 200,000 pounds of sulfur dioxide, which is the equivalent of taking 2,700 cars off the road.

**Paper**
Maine requires that 50 percent of paper purchased by the State contain at least 30 percent post-consumer recycled content paper. In FY 2008, approximately 80 percent of the paper and paper products purchased by the State contained 30 percent post-consumer content. Out of the 294,580 reams of paper distributed by the Bureau of General Services central warehouse, 239,180 contained the required recycled content specification. Using the Environmental Defense Fund's Paper Calculator, Maine estimates the following reductions associated with purchasing 30 percent post-consumer content recycled paper:

- 622 tons of wood;
- 2,997 million British Thermal Units (BTU’s) of energy;
- 378,159 pounds of carbon dioxide (CO$_2$) equivalent greenhouse gases;
- 1,569,654 gallons of water; and
- 201,556 pounds of solid waste.

**Uniforms**
Maine requires the purchase of uniforms that do not need dry cleaning, unless otherwise specified. Maine is also the first government procurement program in the nation to require vendors to conform to an established code of conduct to provide products under healthy, safe, and fair working conditions.

For more information, visit: maine.gov/purchases/policies/chapter130.html.

**Wheel Weights**
The State has avoided the purchase of approximately 325 pounds of lead wheel weights per year.

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

**Massachusetts**
Established in April 2007 by Executive Order Number 484, the Massachusetts Leading by Example Program (LBE)
works to reduce the overall environmental impacts of state government operations, particularly climate and energy impacts. Executive Order 484 establishes higher energy efficiency standards in the operation of state buildings, setting short- and long-term targets and goals to advance clean energy and efficiency, and reduce greenhouse gas emissions that contribute to global warming. The LBE Program promotes sustainability activities within state government, including waste reduction, water conservation, green buildings, alternatives fuels, efficient transportation, and recycling. For more information, contact: Eric Friedman, ME EOEEA (617) 626-1034.

The following provides some examples of Massachusetts LBE initiatives.

**Green Office Leases**

On April 1, 2009, in a step to expand the State's energy efficiency goals, the Massachusetts Department of Environmental Protection (MassDEP) announced “Green Lease” guidelines to encourage environmentally friendly office space lease agreements for the department's public offices. The guidelines were drafted in conjunction with the State Division of Capital Asset Management (DCAM), which is responsible for major public construction and real estate services for the Commonwealth.

A request for proposals (RFP) using these guidelines is now underway as MassDEP seeks new lease agreements for its offices in Boston and Worcester. Proposals that include sustainable and green practices will receive preference in the state review process, adding an incentive for potential landlords to commit to affordable, progressive environmental practices. The sustainable and green business practices requested in the RFP include the following:

- Installation of Energy Management Systems for both lighting and mechanical equipment within the leased premises;
- Separate metering to allow the agency to monitor and report on its energy usage;
- Enhanced recycling efforts, including single-stream recycling and adoption of a waste management plan during construction;
- Use of recycled content during construction of new walls and partitions, and use of low volatile organic compounds (VOCs) in carpet and paint;
- Water conservation standards for all new plumbing fixtures installed for the lease;
- Use of green cleaning solutions and practices; and
- Bicycle commuting facilities for staff and bicycle racks for visitors.

For more information, visit: www.comm-pass.com; click on the “Solicitation” tab, and follow the link to “Space Leasing.”

In addition, beginning July 1, 2009, MassDEP has replaced the thousands of pounds of paper previously used each year by Agency employees reporting their time and activities with an electronic timesheet. MassDEP estimates the paper reduction from this initiative equals 1 metric ton of carbon equivalent emissions. The new electronic time sheet will not only save paper and reduce MassDEP's carbon footprint but will more accurately track staff time and individual effort. For more information, contact: John Viola, MassDEP (617) 292-5581.

**Wind Turbines at Treatment Plant**

The Massachusetts Water Resource Authority's (MWRA) Deer Island Wastewater Treatment Plant treats an average of 360 million gallons of wastewater each day from 43 communities in greater Boston and is one of the largest electricity users in the Northeast. The MWRA has a number of on-going and new renewable energy programs to ensure that the facility reaches the goals of Executive Order 484, including a steam turbine fueled by methane gas recaptured during the wastewater treatment process, hydroelectric power generated by treated water flowing through the outfall tunnel, and solar panels.

Standing 190 feet tall and with capacity of 660 kilowatts each, for a total of 1.2 megawatts, the two Deer Island wind turbines will generate over 2 million kilowatt-hours of electricity per year. All of that electricity will be consumed on-site, displacing electricity that would be purchased from the grid and saving the authority an estimated $250,000 per year. The two wind turbines installed bring Deer Island to 26 percent self-generated renewable energy. MWRA plans to install three more wind turbines at the facility, with the Federal Aviation Administration agreeing to allow the turbines to be installed one at a time, after 30 days of operation with no negative impact on aviation for each additional turbine.

(continued on page 7)
Northeast States Award Green Cleaning Contract

The Commonwealth of Massachusetts recently took a giant step forward to promote green cleaning in the Northeast with the issuance of a multi-state contract for green cleaning products, programs, equipment, and supplies (#FAC59). The contract, developed by the MA Operational Services Division (OSD), involves the participating states of Connecticut, New Hampshire, New York, and Vermont. By aggregating the purchasing volumes of the five contiguous states, the contract is able to offer competitive pricing on chemicals and bigger discounts on equipment and other supplies.

This is the first multi-state contract to require third-party certified green cleaning products while including provisions for energy efficient equipment, recycled content janitorial supplies, cutting edge technologies that reduce or eliminate chemical use for various cleaning applications, and other low-impact products. All public entities, including state agencies, city and town departments, public schools, higher education, and state-owned hospitals are eligible to use this contract.

The contract was awarded across two categories: Category I was awarded to 18 vendors, mostly local distributors, and includes a comprehensive range of cleaning chemicals covering all purpose, bathroom, glass, and carpet cleaners; floor care systems; degreasers; odor control products; appliance cleaners; and more. These vendors can also supply janitorial paper products and trash liners that comply with the EPA’s specifications for post-consumer recycled content, recycled content matting systems, and other energy efficient cleaning equipment. Most of these vendors also supply green cleaning supplies, such as microfiber mops, high performance hand dryers, and natural brushes. Category I vendors were evaluated not just on the selection and cost of their chemicals, but on their ability to provide guidance and training to customers interested in transitioning to green cleaning as well as tools to assist those customers in monitoring their progress.

Category II primarily focuses on innovative technologies that significantly reduce or eliminate the need for chemical use. Two vendors are currently awarded for such products, but several more awards are pending further review.

While implementing the use of green cleaning products and practices promises to save money for the participating states, the greater benefits and innovations of this contract include:

- Stimulating local economies throughout the five states by reaching out to the small and medium-sized businesses in the area;
- Enabling two of the states to put a contract in place to comply with recent legislative mandates;
- Obtaining a wide selection of the greenest and the top performing cleaning products by requiring chemicals that are independently certified by either Green Seal or EcoLogo; and
- Providing the technical assistance needed by agencies, schools, and others to transition to “green” by awarding contracts to vendors that offer sophisticated training programs and tools to monitor these changes.

Prior to this contract in 2002, OSD’s environmentally preferable purchasing (EPP) program took the lead in issuing a green cleaning product contract that resulted in a transformation of the entire institutional cleaning industry. Working with a task force of other state purchasers, facilitated by the Center for a New American Dream, Massachusetts became the first state to include an extensive list of human health and environmental criteria based on the Green Seal GS-37 standard in its cleaning products contract. As a result of the successful use of this standard in its contract, the other purchasers participating on the task force were poised to follow the Massachusetts’ lead. Within roughly a two year period, market interest in safer cleaning products went from one manufacturer’s Green Seal certified product line in 2002 to more than 450 products from more than 80 manufacturers now certified as meeting the Green Seal standard. Identifying safer, high performance cleaning products is now significantly easier and more cost effective for purchasers across the country.

For more information, visit: www.comm-pass.com, click on “Contracts,” then “Contract Search,” and indicate contract #FAC59 in the “Document Number” box; contact: Comm-pass@state.ma.us.
Vol. 19 No. 2 Fall 2009  NORTHEAST Assistance & Pollution Prevention News

(Massachusetts continued from page 5)

Solar Power
As part of Massachusetts’ Recovery Plan to secure the state’s economic future, the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) announced the first round of investments in approximately 16 megawatts (MW) of solar photovoltaic (PV) energy at state-owned facilities throughout Massachusetts, including up to 2.75 MW atop Logan International Airport’s four commercial passenger terminals. The Massachusetts Solar Stimulus plans to invest $20 million to install solar PV systems at publicly-owned facilities is a cornerstone of the State’s plan for spending $54.9 million in State Energy Program federal funds under the American Recovery and Reinvestment Act (ARRA).

EEA’s Department of Energy Resources (DOER) has announced a Request for Proposals (RFP) for the first round of Massachusetts Solar Stimulus projects. In addition to the Logan Airport installations, solar projects announced recently include PV systems at nine MWRA facilities, two Somerville Housing Authority developments, and a new residence hall at Westfield State College.

The Commonwealth had approximately 4 MW of installed solar power in 2006 and has set a goal of 250 MW of solar power by 2017. Today, the state has over 11 MW of installed solar, plus 6.5 MW in the pipeline but not yet installed through the state solar rebate program. The Massachusetts Solar Stimulus could add up to 21 MW more – 16 MW funded through ARRA State Energy Plan monies, plus roughly 5 MW more paid for with State Revolving Fund revenue for green infrastructure projects at drinking and wastewater treatment facilities, also financed by ARRA.

In the coming weeks, the DOER plans to issue several additional RFPs for solar projects at state-owned properties around the state. DOER selected projects through an Energy Task Force convened by the Governor’s office in preparation for receipt of ARRA funding. The Energy Task Force identified over 13 MW of potential roof- and ground-mounted PV solar installations at a variety of state facilities, and an additional 5 MW at water and wastewater facilities. A Municipal Task Force pinpointed a number of additional projects. Future solicitations are expected to seek bids for solar installations at more colleges and housing projects, transportation facilities, and public buildings, such as the Boston Convention and Exhibition Center.

DOER will also work with municipalities and with MassDEP to develop volume solar procurements for municipal projects and projects at water and wastewater plants. Municipal projects will be funded with Energy Efficiency and Conservation Block Grant funding awarded to cities and towns through the ARRA.

In addition to $20 million directed to the Massachusetts Solar Stimulus effort, the State Energy Plan submitted to the U.S. Department of Energy calls for directing $14.9 million to an Energy Efficiency for State Facilities program that will implement efficiency retrofits in state facilities, and $20 million for a Massachusetts Building Energy Transformation effort to fund proposals to solve energy use challenges in buildings across the state.

New Hampshire
The New Hampshire Pollution Prevention Program (NHPPP) received EPA funding to promote green cleaning products and hazardous materials reductions in state buildings. The Department of Environmental Services (NH DES) partnered with the Department of Administrative Services (DAS), the agency that provides maintenance and management services to all State buildings, to increase energy efficiency, reduce hazardous cleaning chemicals, and reduce paper use in State buildings. Interestingly, DAS first implemented these projects as cost-savings measures, but when they met with NHPPP they began to understand that there were environmental benefits as well.

Over this past year, DAS has been eliminating all hazardous cleaning products by switching to Green Seal-certified cleaning products. This was an ongoing process that required monitoring and adjustment because there were no “drop in” substitutes for the automatic dispensers that diluted and mixed the cleaning concentrates, and some staff members experienced skin reactions to some of the new products. DAS is still experimenting with products that can remove rust stains, but virtually all other State contracted cleaning products are Green Seal certified.
DAS also began to replace white paper towels with brown paper towels. Again, this was a bumpy process because some staff complained that “brown towels do not belong in a professional office building.” To assist DAS, NHPPP created a “How now, brown towel” outreach poster explaining that, because brown towels do not have to go through a bleaching process, dioxins (a by-product of chlorine paper bleaching), were eliminated along with massive amounts of chlorine. At the same time, unbleached towels are almost half as expensive as bleached white towels.

Although the DAS was able to document cost savings, they were unaware of the environmental benefits of these changes. NHPPP is presently comparing the Material Safety Data Sheets (MSDS) for the old cleaners with those of the new cleaners. By determining the percent of toxic ingredients and volumes used of the old cleaners, they plan to calculate the pounds of hazardous materials eliminated. The same process will be used to calculate chlorine and dioxin reductions achieved by switching from white to brown paper towels.

New Jersey
Over the past few years, New Jersey has implemented legislation to promote the purchase and use of environmentally preferable products (EPP) and energy efficiency in state agencies.

Signed in January of 2006, Executive Order No. 76 requires state agencies to eliminate to the greatest extent possible, all cleaning agents containing hazardous ingredients and replace them with environmentally-friendly products. Working in collaboration, the departments of Treasury, Health and Senior Services, Environmental Protection, and external stakeholders developed standards for environmentally-friendly cleaning products. In August of 2007, the Treasury Department initiated an Environmentally Preferable Cleaning Products contract incorporating these standards.

Executive Order No. 11, signed on April 22, 2006, promotes energy efficiency and the purchase by State government of recycled products, energy efficient products, renewable energy products, low toxicity products, and alternatives to products that contain persistent bio-accumulative toxics. Executive Order 11 created the post of Director of Energy Savings, within the Treasury Department. The Director is working to design and implement a program to increase efficiency, reduce usage, and improve the procurement of energy for the hundreds of facilities owned by the state. Currently New Jersey spends approximately $128 million on energy costs. Through energy audits, bulk purchasing of energy, increased use of Energy Star compliant products, and implementation of energy efficiency practices at state facilities, New Jersey will save millions of dollars.

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Additional legislation implemented in January of 2009 encourages public entities, including the State, counties, municipalities, school districts, and public colleges, to implement energy savings improvement programs. The bill will help public agencies reduce their energy consumption and realize financial savings.

The New Jersey Consolidated Energy Savings Program, a consortium of State entities, including various departments, colleges, authorities, and instrumentalities that is administered by the New Jersey Department of Treasury, currently procures 13 percent of total electric demand for State facilities in the form of renewable energy. This ranks New Jersey 14th nationally in the total amount of renewable electricity procured for State facilities.

New York
Executive Order No. 4, signed in April 2008, established a State Green Procurement and Agency Sustainability Program for all State agencies and authorities. Objectives of the first year were 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. Information is currently being...
compiled to submit a report to the Governor assessing what actions and accomplishments have been implemented in regards to procurement and recycling objectives.

The Interagency Committee on Sustainability and Green Procurement identified three other priority categories to focus on for the first year: electronics, transportation, and building operations. They developed and finalized specifications for procurement of 19 priority commodities, services, and technologies within those categories.

Planning is already underway to select the next priority categories and commodities to focus on in the upcoming year. To address the requirements for implementation and reporting for Executive Order 4, the staff has developed a training program to review general purchasing requirements, recommendations and the objectives. For more information, contact: Allan Geisendorfer, NYS DEC (518) 402-8276, angeisen@gw.dec.state.ny.us.

Executive Order No. 18, signed on May 5, 2009, restricts the use of bottled water at state facilities. This executive order seeks to improve the environment and save taxpayer dollars by eliminating the purchase and use of bottled water in all state agency facilities. Unless exempted from this obligation, all agencies must eliminate expenditures for bottled water by May 1, 2010. An Initial Assessment of drinking water dispensers at agency facilities will be completed by the end of August. Reports on progress of implementation plans are due on March 1, 2010. For more information, contact: Tom Folts, NYS DEC, tfolts@gw.dec.state.ny.us; visit www.ogs.state.ny.us/EO18/Default.html.

Rhode Island

Throughout the spring and summer months of 2009 the Narragansett Bay Commission (NBC), has continued working with the Rhode Island Department of Environmental Management (RI DEM), the University of Rhode Island (URI), and the Rhode Island Manufacturers Extension Service (RIMES), referred to below as the Project Partners, to help develop Energy Focused Environmental Management Systems (EF-EMS) for all 19 wastewater treatment facilities (WWTF) in Rhode Island. The program is funded by a grant awarded through EPA’s States Innovation Program.

The Project Partners use a combination of workshop training and on-site technical assistance to help participating WWTFs develop EF-EMSs based on the well established ISO 14001 Environmental Management System (EMS) “Plan-Do-Check-Act” approach. For the purposes of this project an EF-EMS is recognized as consisting of practices, procedures, policies, and technologies that will continuously support and sustain WWTF operations into the future.
On April 29th, the Project Partners organized and held a half day workshop for participating WWTFs on how to use EPA’s Portfolio Manager Software to track their energy use. The workshop was led by EPA and was attended by 11 representatives from 8 of RI’s 19 municipal WWTFs. Each attendee set up an account for their respective WWTF and entered at least a year’s worth of energy use data (e.g., gas, oil, and electric) into their Portfolio. Participating WWTFs shared their data with EPA and other RI WWTFs and received an “Energy Rating” that will be used as the basis for measuring future improvements.

As part of this project, each participating WWTF will be receiving an Energy Management Audit conducted by an Energy Management Team made up of the Project Partners in cooperation with National Grid and Action Energy, a professional energy management consulting firm. To-date eight audits have been conducted by the Energy Management Team led by the University of Rhode Island (URI). During an energy audit the Energy Management Team reviews and tours a facility’s operations collecting information on motor and pump sizes, facility operational data including but not limited to: average daily flow; biological oxygen demand (BOD); nitrogen and total suspended solids (TSS) loadings and removal efficiencies; existing energy management practices; and overall average energy use. Follow-up visits are conducted by a licensed electrician to gather real-time data on specific equipment energy demands. All collected data is being analyzed and benchmarked and will be included within individual summary reports to be submitted back to each facility. As a follow-up to these audits, WWTFs that are not fully utilizing the Portfolio Manager Program are given assistance with updating their accounts by URI student interns.

On May 27, 2009, a half-day WWTF Sustainable Energy Management Roundtable Meeting was held at the Warwick WWTF. The EF-EMS Roundtable is made up of various representatives from the 19 WWTFs located in Rhode Island. Through regular Roundtable meetings, members learn how to implement the “Plan-Do-Check-Act” approach to establishing more efficient energy management practices at their facilities, how to measure and benchmark their current energy use, and how to identify and assess potential renewable energy use opportunities. As part of the recent Roundtable Meeting, participants developed an Energy Policy Statement for their individual facilities and were given a presentation on how to interpret commercial electric bills by a representative of National Grid.

On June 24, 2009, the EF-EMS Project Partners organized and held a second half-day EF-EMS Roundtable meeting at the Narragansett Bay Commission. During this Roundtable meeting attendees participated in a live webcast sponsored by the Water Environment Federation (WEF), which focused on how to upgrade process controls and modify equipment management in order to optimize energy efficiency and save money. Future Roundtable meetings will be held approximately once per month through the summer of 2010. For more information, contact: James McCaughey, NBC (401) 461-884 x 352.

Vermont

Vermont’s efforts at greening its government operations had their origin 15 years ago with the establishment of the Clean State Program, modeled after similar efforts in Massachusetts. Over the ensuing 15 years, greening efforts have been refined and expanded through various executive orders and legislative acts.

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Initial greening initiatives that came out of the Clean State Program and the multi-agency Clean State Council focused on environmentally preferable office and copy paper (high post-consumer content and chlorine-free), enhancing state government recycling efforts, staff education, and other environmentally preferable purchasing (EPP) initiatives, such as recycled content and reduced toxics use. In addition to being early adopters on environmentally preferable paper, the state developed EPP contracts for custodial products.
Greening NEWMOA’s Office

In an effort to “walk the talk” when it comes to P2 and sustainability, NEWMOA has implemented several green office practices over the past few years, including those outlined below.

Conserving Paper
NEWMOA has reduced paper consumption by transitioning to paperless meetings, conferences, and training events. The most successful transition has been for the quarterly meetings with the NEWMOA Board of Directors. The first fully paperless Directors’ meeting was in June 2007. Instead of using traditional binders full of paper meeting materials for these meetings, NEWMOA facilitated access to the material via laptop computers during the meeting. Previously, the average amount of paper used in each quarterly meeting was over 14,000 sheets of paper (500 pages per binder for 28 binders), costing approximately $4,460.00 in copying, printing, packaging, and postage – not to mention the staff time dedicated to organizing the materials and filling the binders. By switching to paperless Directors’ meetings, NEWMOA has saved approximately 56,000 sheets of paper and $17,840 per year.

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Other paper-reduction efforts in the NEWMOA office include transitioning all employees to double-sided printing; setting up a separate recycling bin for pages that are only printed on one-side – these pages are made into note-pads that the staff can reuse; and encouraging the use of electronic editing rather than hard-copy edits.

Promoting Green Hospitality
NEWMOA’s policy is to hold meetings, workshops, and conferences at facilities that incorporate as many environmentally preferable measures as possible. These measures include products and services that have a reduced impact on public health and the environment. NEWMOA coordinates with the hotel or other meeting location on their green practices, including recycling, composting, use of organic or locally grown food, and low water and energy use practices. NEWMOA has created a series of Green Meeting Questionnaires to assess the “greenness” of the proposed hotel or meeting location (one questionnaire for day meetings and one for meetings that require overnight accommodations). Additionally, NEWMOA seeks hotels or restaurants that have been certified as green or are recommended by one of the NEWMOA-member state’s hospitality certification programs.

NEWMOA attempts to green the transportation to its events by choosing locations that are accessible to public transportation, encouraging car pooling, the use of hybrid and alternative fuel vehicles, and purchasing carbon offsets for travel. For the December 2008 Board of Director’s Meeting, NEWMOA eliminated the need for transportation altogether and organized two consecutive days of three-hour conference calls combined with a webinar, instead of holding a face-to-face meeting.

Evaluating New Initiatives
NEWMOA recently established a “Green Team” to further its efforts to green the office and its activities. The purpose of the Green Team is to discuss and evaluate additional green practices that may be implemented, including: establishing a building-wide recycling program, expanding efforts to compost food waste, and upgrading to more energy-efficient lighting and HVAC systems.
Cleaning for Health:  
An Interview with Carol Westinghouse, Program Manager, Informed Green Solutions, Inc.

Informed Green Solutions, Inc. is a non-profit organization established in February 2009, with a focus on environmentally preferable purchasing (EPP) for the public and private sectors. Carol Westinghouse started Informed Green Solutions after working for INFORM for over five years where she developed and managed their Cleaning for Health Program. Informed Green Solutions was established to continue the Cleaning for Health Program after INFORM discontinued all their programs in order to focus on environmental videos, as well as to provide information on other aspects of environmentally preferable purchasing (EPP). Carol has assisted hundreds of state and local government agencies transition to green cleaners and shared some of her experience and insights with NEWMOA.

NEWMOA: What is the difference between green cleaning, cleaning for health, and other similar terminology?

Westinghouse: There are many definitions of green cleaning. What I am talking about when I say green cleaning is actually the comprehensive Cleaning for Health Program that I developed and that is based on Steve Ashkin's work (The Ashkin Group). My definition of “cleaning for health” is cleaning that protects public health without adversely affecting the health of staff, building occupants, and the environment.

NEWMOA: How did you become interested in green cleaning?

Westinghouse: My previous experience includes working with industry to administer occupational health and safety programs, so I come from a workers’ protection background. In the 1990’s, we began switching our facilities from the more toxic solvents, like trichloroethylene, to the less-toxic citrus-based solvents, and I became interested in identifying less-toxic alternatives to traditional chemicals. At the same time, I became sensitive to the chemicals used in my work environment, and for the sake of my health was forced to leave my position. I began to assist people with chemical sensitivities that were building new homes with identifying less-toxic building materials. This developed into my work with INFORM's Cleaning for Health Program.

NEWMOA: Tell us about some of your experience working with the public sector to promote green cleaners.

Westinghouse: I have assisted over 250 schools and school districts in New England, under funding from EPA Region 1 and private foundations, in making the switch to a Cleaning for Healthy Schools Program. This includes educating the custodial and other staff members about toxic ingredients in conventional cleaning products, surveying their current cleaning practices and products, and providing information on safer alternatives. Using the EPA's Green Cleaning Pollution Prevention Calculator, I have estimated that the facilities I've worked with will reduce the use of approximately 117,000 pounds of hazardous cleaning products each year after the program is implemented.

NEWMOA: What are some of the cutting-edge methodologies or technologies that are now being used for safer cleaning products or processes?

Westinghouse: Over the past five years, there has been a tremendous movement towards green chemistry – in part because of the demand for greener products and chemical-free solutions. Government and institutional purchasers are pushing the envelope by including more stringent criteria in their contract specifications. Third-party certifiers, such as Green Seal and EcoLogo, are tightening their criteria as well. We've recently seen Green Seal exclude ingredients that are identified as asthmagens from their certified products. This is a huge step forward.

Industry has also moved toward developing safer technologies. One example is the “Active Ion” technology that uses only tap water as the active ingredient. In this process, water is electrolyzed as it is sprayed from the container. This creates an all-purpose cleaner and EPA-registered sanitizer that uses no chemicals at all. Another example is a machine that has been developed to replace traditional floor strippers, which are often the most toxic product used in schools. The new machine uses a stripping pad and either water or a less-toxic chemical to strip the floors. There is a lot of interest in steam cleaning equipment as well.

NEWMOA: What are some of the innovative cleaning efforts you have observed that have been undertaken by state agencies?
Westinghouse: The Massachusetts Request for Responses (RFR) for Environmentally Preferable Cleaning Products is one of the most comprehensive guides and has the most innovative specifications, including training and service requirements (see article on page 6). This would be a good standard for other agencies to adopt going forward. Several states have adopted legislation specific to green cleaning in schools and several other states will take up legislation this year. The best of these laws require that schools use products that have been independently third-party certified. In response to this movement, trade organizations for manufacturers are coming out with their own best practice standards. For example, the International Sanitary Supply Association (ISSA), in collaboration with the Cleaning Industry Research Institute, is developing a standard for green cleaning practices.

NEWMOA: What are the interesting future opportunities in this field?

Westinghouse: Child care centers would benefit from Cleaning for Health Programs, since children are so vulnerable to the impacts of many traditional cleaning products. I am also particularly interested in green lodging programs. I think working on public education about green cleaning is important because many people do not have access to accurate information. In particular, there is a lot of misuse and overuse of disinfectants, especially in school and institutional settings. A workgroup that includes representatives of the Commonwealth of Massachusetts, State of California, U.S. EPA, and the Centers for Disease Control and Prevention (CDC), as well as Lynn Rose, a consultant and trainer for the Massachusetts Facilities Administrators Association, and myself, are coming out with The Disinfection Handbook for Schools in the fall. This guide aims to educate facilities on types of disinfectants, the science of disinfecting, how to write a protocol, and disinfecting in the event of an infectious disease, such as the H1N1 virus. This project has been funded by the Massachusetts Toxics Use Reduction Institute (TURI).

NEWMOA: Are there any areas that need further research and development?

Westinghouse: Disinfectants are a significant challenge with news ones regularly coming on the market. There is currently a big movement away from disinfectants that use bleach, phenols, and quaternary ammonium compounds as their active ingredients toward accelerated hydrogen peroxide and botanical-based products. These alternative products have all been tested and are EPA-registered. It is an ongoing process, and technology will play a major role as society moves towards the use of safer or non-chemical alternatives.

NEWMOA: Can you suggest some useful information resources for people to use?

Westinghouse: The following are some of the key resources that I use:

- Fact sheets on transitioning to a Cleaning for Health program are currently located on INFORM’s website (www.informinc.org) and will be available on the new Informed Green Solutions, Inc. website this fall (www.informedgreensolutions.org).
- The Quick and Easy Guide to Green Cleaning in Schools includes information about green products, equipment, and practices. (http://healthyschoolscampaign.org/programs/gcs/guide.php)
- The Cleaning for Healthy Schools Toolkit is a training tool that includes outreach materials for schools and municipalities (www.cleaningforhealthyschools.org).
- The Center for Health, Environment, and Justice “Green Flags” program addresses green cleaners and integrated pest management (IPM) for schools (www.greenflagschools.org).
- Women’s Voices for the Earth provides information on the hazards of residential cleaning products and safer alternatives (www.womenandenvironment.org).
- The Green Cleaning Network was formed to share information, stimulate discussion, and educate the marketplace in order to accelerate the adoption of green cleaning for the benefit of human health and the environment (www.greencleaningnetwork.org).
- The Responsible Purchasing Network educates and assists purchasers on socially responsible and environmentally sustainable purchasing (www.responsiblepurchasing.org).
The early days of EPP saw most of state government switching to unbleached copy paper and letterhead, as well as duplex copying. These efforts raised employee and public awareness of EPP, but the finicky performance of this paper (in printers and photocopiers) led to its eventual demise. Fortunately, paper manufacturers responded with much higher quality “white” paper with similar environmental attributes, and the problem was solved.

Early efforts to require pollution prevention planning by state agencies were never completely implemented. With low energy prices at the time and no emphasis yet on climate change, energy conservation initiatives were not prominent. These earlier efforts in the 90s did, however, bring together state agencies to communicate and share ideas openly through the Clean State Council, and brought the Department of Buildings and General Services (BGS) on board to focus on resource conservation in buildings, operations, and product purchasing in which they were to eventually assume a leadership role in state government.

In 2003 and 2004, greening government operations were taken to a new level when BGS was charged with developing a Comprehensive Environmental and Resource Management Program (CERMP). The CERMP was finalized in 2005 and established for the first time a single source within state government for advancing sustainability in government operations. The CERMP placed the focus of sustainability in three areas – infrastructure management, state purchasing, and transportation management, while adding an energy conservation and climate change focus, with a goal of decreasing greenhouse gas emissions 25 percent by 2012.

In 2005, the Vermont State Agency Energy Plan for State Government was further developed, and builds upon the CERMP by establishing numerical targets for energy reduction in buildings and transportation (15 percent by 2012). The Plan requires state agencies to develop energy reduction plans covering these focus areas. In addition to infrastructure and transportation, BGS is required to evaluate all products on contracts that have significant energy impact, evaluate alternatives, and conduct life cycle cost analysis on commodities prior to awarding contracts.

The implementation of recent plans is ongoing, with the State Agency Energy Plan undergoing a 5-year revision in the coming year. Progress to date includes:

- Creation of an engineer position within BGS to oversee the implementation of the plan;
- Tracking systems for energy use in various agencies so that performance can be measured and tracked over time;
- Energy audits of government operation;
- A State Resource Management Revolving Fund to fund energy conservation projects;
- Increased use of biodiesel, wood chips, and wood pellets for fuel;
- Development of wind and geothermal projects;
- Widespread use of contracts that specify energy efficient products (i.e., those meeting or exceeding Energy Star or comparable specifications), as well as least toxic and high recycled content products;
- Purchase of partial zero emissions vehicles (PZEVs) and hybrid vehicles for fleet management;
- Upgrades to efficient lighting technologies and controls to lighting for motion and daylight;
- Upgrades to motors and drives in mechanical systems to energy efficient operations; and
- Virtual elimination of mercury use in components for heating systems and other applications through purchasing new products and replacing existing mercury components.

For more information, contact: Gary Gulka, VT DEC (802) 241-3626

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

CONNECTICUT

Connecticut Department of Environmental Protection (CT DEP)

Organic Land Care Workshops
The CT DEP co-sponsored two half-day workshops on organic land care with the University of Connecticut’s Plant Science Department and the Connecticut Northeast Organic Farming Association in May and June. The training was developed to help towns maintain quality turf while complying with the upcoming pesticide prohibition on K-8 school grounds. Ten private landscapers and 15 officials from 13 towns attended the two sessions.

At the first workshop, municipal parks and recreation, public works, and education staff, along with land care professionals, learned about testing the soil, interpreting the results, and developing a practical organic land care plan for recreational fields. The second workshop held at University of Connecticut’s (UCONN) Research Farm, featured new research on organic land care and nutrient management as well as an overview of the CT DEP organic land care pilot projects in Manchester and Watertown. The focus of this session was on how to implement an organic land care plan within the town’s budget, including discussion of amendments, cultural practices, and equipment.

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

Green Lodging
Four hotels have been certified under the new Connecticut Green Lodging program with more applications awaiting approval. Hotels receive special designation in the Connecticut Vacation Guide when they are certified green and are listed on the Connecticut tourism website at: www.CTvisit.com. They also receive access to the Connecticut Green Lodging logo to use in their advertising.

For more information, contact: Kim Trella, CT (860) 424-3234, kim.trella@ct.gov; visit: www.ct.gov/dep/greenlodging.

GREEN CLEANING

Green cleaning initiatives in Connecticut include:

- Public Act 09-81 requires schools to use environmentally preferable, “green” cleaning products. This is part of an effort to improve air quality in schools and make them healthier places for students, teachers, and staff.
- The CT DEP Office of Pollution Prevention is continuing outreach efforts on green cleaners for the home by giving presentations, including one at the Connecticut Green Cleaning Conference in October.
- A display showing environmentally preferable and homemade alternatives to toxic cleaning products was loaned to a variety of organizations for use at events, such as environmental festivals and employee health and safety fairs.
- The Breathe Easy While Cleaning Recipe Card for making your own green cleaners is available for download at: www.ct.gov/dep/p2 (click on recipe card).

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

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,
GREENING GOVERNMENT WEB RESOURCES

This section of the NE Assistance & P2 News lists useful web resources that are related to Greening the Government

ENERGY STAR for Government

provides federal, state, and local government agencies with energy management strategies and no-cost tools so that they can save energy and money and demonstrate their environmental leadership.

www.energystar.gov/index.cfm?c=government.business

Environmentally Preferable Purchasing (EPP)

helps the U.S. EPA and other federal government agencies “buy green.”

www.epa.gov/epp/

Green Seal’s Greening Government Program

provides assistance in purchasing, operations, and facilities management through product evaluations and recommendations, guidance manuals, certification, and special projects.

www.GreenSeal.org/programs/government.cfm

How to Green Your CT State Agency

contains information and links to all the resources needed for “greening” government agencies as a model for protecting the environment and creating a healthier workplace.


P2Rx’s EMS in Government Topic Hub™

is a guide to basic information about implementing an environmental management system (EMS) for government entities.


The Sustainable Development in Government Operations (SDGO) Initiative

is part of the Canada’s efforts to green its government operations and share knowledge on sustainable development in government operations.

www.greeninggovernment.gc.ca/default.asp?lang=En&n=9697C298-0

(Maine continued from page 15)

motels, and inns. Launched in November of 2005, there are currently 107 self-certified businesses in Maine. Verification audits occur annually at 12 random businesses. The P2 program has visited over 50 sites, making an average of 10 P2 recommendations at each facility.

• Implementing a state environmental certification program for restaurants. Launched in June of 2007, there are currently 25 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.

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 questions 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
MassDEP has targeted Massachusetts dental practices and facilities for failing to comply with regulations that prevent dental amalgam that contains mercury from being released into wastewater.

MassDEP issued enforcement notices to 30 dental facilities for failing to certify that they had installed state-approved equipment for keeping mercury amalgam out of their wastewater – even after previous warnings from the agency that they were late in doing so. The agency gave these facilities 30 days to comply with the rules. As of July 28, 2009, 14 dental facilities still have not complied, and must pay a fine of $500, in addition to the $400 in compliance fees.

Before the start of the MassDEP dental amalgam program, about half of the mercury found in Massachusetts wastewater originated in dental offices, where scraps of mercury amalgam from tooth fillings were washed down the drain or thrown away in the trash. A University of Massachusetts study of several commercially available amalgam separator technologies has confirmed that they effectively remove most mercury from dental wastewater. For instance, mercury levels in wastewater sludge treated by the Massachusetts Water Resources Authority (MWRA) dropped by almost 50 percent after most dental offices in the state started to use amalgam separators.

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

**Massachusetts Department of Environmental Protection (MassDEP)**

**Dental Practices & Recycling Mercury Waste**

The vast majority of dental practices are complying with MassDEP regulations that require them to install and operate wastewater treatment systems that capture mercury dental amalgam, recycle their mercury-containing amalgam wastes, and periodically certify that they are complying with the rules. However,
continue TURI operations beyond the fall of 2009. As of the publication date of this newsletter, there has been word of an agreement to provide funding for TURI out of additional stimulus funds being provided to the University of Massachusetts, however this resolution is still in progress and the level of funding is uncertain. TURI is one of three operational divisions (with MA OTA and MassDEP) in the Toxics Use Reduction Act (TURA) Program. TURI provides resources to Massachusetts businesses and communities seeking alternatives to toxic chemical use, including laboratory testing services, research, Toxics Use Reduction Planner training, TUR demonstrations, grants, fact sheets, library services, and public workshops and conferences. TURI also manages the Science Advisory Board that evaluates chemical hazards and makes policy recommendations on the listing and delisting of chemicals to the TURA program’s governing policy body, the Administrative Council.

TUR Science Advisory Board
TURI is responsible for coordinating and providing research services to the nine-member Science Advisory Board (SAB) as it reviews and analyzes scientific data for the TURA Program. After considering their recommendations and analyzing current policy, the SAB makes a recommendation to the TURA Administrative Council pertaining to CERCLA chemicals or designates chemicals as higher and lower hazard. The SAB voted in July of 2009 to recommend adding 1-bromopropane (also known as n-propyl bromide or NPB) to the TURA list of toxic or hazardous substances for e-reporting beginning in 2010. NPB is a common substitute for TURA reportable chemicals including the higher hazard substances trichloroethylene (TCE) and perchloroethylene (PERC).

For more information, visit: www.turi.org/content/download/5530/59724/file/nPBRecommendation7_23_09.pdf.

20th Anniversary Symposium & Conference
Although funding is limited, on November 4, 2009 the TURA Program will celebrate 20 years of successful programs and innovation with a symposium and conference. With funding from the National Institute of Occupational Safety and Health (NIOSH), the symposium will offer 15-20 presentations on exciting topics submitted by experts from Massachusetts and national and international organizations. TURI will also offer a Continuing Education Conference for TUR Planners and other professionals, with valuable and practical sessions.

For more information, visit: http://visitor.constantcontact.com/email.jsp?m=1102108714611.

Statehouse Event Honors Leaders
The 2009 Champions of Toxics Use Reduction received awards from TURI at the Massachusetts Statehouse in June. The annual awards honor outstanding leaders that have reduced toxic chemical use in Massachusetts through innovation and outreach. Awards were presented to three companies, eight community groups, and one researcher, as described below:

Industry Champions of Toxics Use Reduction:
- Lightolier, (Fall River) prepared a Resource Conservation Plan that resulted in a reduction in water usage by 78 percent, saving 70 million gallons per year.
- Skyworks, Inc., (Woburn) has reduced the use of wastewater treatment chemicals (sodium hydroxide) by 30 percent and hydrochloric and sulfuric acids in production by 30 percent.
- Silver Hanger Cleaners, (Bellingham) demonstrated professional wet cleaning technology to approximately 50 dry cleaners in Massachusetts and is currently collecting cost and performance data to help TURI analyze the differences between using perchloroethylene and professional wet cleaning technologies.

University Research Champion:
- Dr. Sanjeev Manohar, Associate Professor and Director of the Green Technology Laboratory, University of Massachusetts Lowell, was funded $20,000 to design and develop a lead-free nano-structured surface finish to ensure reliability of solder used on printed circuit boards. Dr. Manohar partnered with regional companies to

(continued on page 20)
NEW PUBLICATIONS & EDUCATIONAL MATERIALS

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

**Asthma & TURA Chemicals Report**
This Report, *Asthma-Related Chemicals in Massachusetts: An Analysis of Toxics Use Reduction Act Data*, provides background on asthma to highlight why this disease is a public health priority in Massachusetts. The project involved assembling a master list of agents that cause the initial onset of asthma or exacerbate existing asthma; researching trends in the use of asthma-related chemicals in Massachusetts using TURA data; and exploring the associations between the TURA data and asthma surveillance data gathered by the Massachusetts Department of Public Health (MDPH).

[www.turi.org/content/view/full/6640](http://www.turi.org/content/view/full/6640).

**CFL Recycling Report**
The Massachusetts Department of Environmental Protection (MassDEP) contracted with the Northeast Waste Management Officials’ Association (NEWMOA) to prepare a report that reviews compact fluorescent lamp (CFL) collection and recycling programs in the U.S. and abroad. The main purpose of the Report, *Review of Compact Fluorescent Lamp Recycling Initiatives in the U.S. and Internationally*, is to examine these programs to highlight lessons learned and possible approaches to adopt in Massachusetts.


**C&D Waste Management in the Northeast**
*Construction & Demolition Waste Management in the Northeast in 2006*, describes the quantity of construction and demolition (C&D) waste that is generated, processed, recovered, and disposed in the Northeast Waste Management Officials’ Association (NEWMOA)-member states. The purpose of this Report is to help the member states and EPA understand how C&D waste is managed in the Northeast.

[www.newmoa.org/solidwaste/CDReport%202006DataFinal%20June302009.pdf](http://www.newmoa.org/solidwaste/CDReport%202006DataFinal%20June302009.pdf)

**Common Measures Project Report**


**Getting the Lead out of Electronics**
This fact sheet provides a summary of the successful efforts of the New England Lead-free Electronics Consortium.

[www.turi.org/content/download/5509/59483/file/TURI_Lead-FreeBrochure.pdf](http://www.turi.org/content/download/5509/59483/file/TURI_Lead-FreeBrochure.pdf)

**Greenlist Bulletin**
The TURI Library publishes this free weekly update delivered via email. Topics include innovative technologies, chemical policy, pollution prevention, environmental health, and toxics alternatives.

[http://visitor.constantcontact.com/email.jsp?m=1102108714611&p=oi](http://visitor.constantcontact.com/email.jsp?m=1102108714611&p=oi)

**Greenworks**
NH DES publishes a monthly article that discusses an environmental issue and the topic for September is “Pollution Prevention.” The article discusses how P2 is a step above the 3 R’s and emphasizes the fact that if pollution is not generated in the first place, it does not create a problem for air, water, or land. The article provides strategies for implementing pollution prevention in the home as well as the workplace and suggests alternatives to cleaning products, gardening chemicals, and using manual doors and stairs instead of those that are automatic.


**Toxic Substances in Personal Articles**
*Toxic Substances in Articles: the Need for Information* is a report Commissioned by the Swedish Chemicals Agency (Kemi), with funding from the Nordic Chemicals Group under the Nordic Council of Ministers. The Report considers the various measures needed to achieve improved chemical management at national, regional, and global levels by exploring information about chemicals in articles such as personal computers, textiles, and toys.

[www.newmoa.org/content/download/5484/59254/file/kemi_toxics_articles.pdf](http://www.newmoa.org/content/download/5484/59254/file/kemi_toxics_articles.pdf)

**Wastelines Newsletter**
The New Hampshire Pollution Prevention Program (NHPPP) has published one issue of Wastelines since the spring of 2009. The August 2009 issue focused on EMFACT™, the new manufacturing efficiency technology available through NEWMOA, and the P2 Road show, which outlines training that the NHPPP offers to companies and organizations. Another article reiterates the new NESHAP regulations in effect for paint stripping and other surface coating operations. The last article is a summary of the State’s switch from bleached to unbleached paper towels.

evaluate the performance of these lead-free coatings as a potential mitigation for tin whisker formation, a common problem when using non-lead materials in electronics.

Community Champions:

• Natural Cleaning in the Brazilian Community: Brazilian Women's Group, Allston
• Healthy Floor Finishing: Vietnamese-American Initiative for Development, Inc., Dorchester
• Lead-Free Vineyard Fishing: Wampanoag Tribe, Martha's Vineyard
• Center Pond Weed Project: Center Pond, Becket
• Townsend Organic Lawn Care Demonstration Site: Townsend Conservation Commission
• Scholarships to the Organic Lawn & Turf Course: Northeast Organic Farming Association, Barre
• School Disinfection Workgroup: Statewide project
• Lowell Green Building Commission

TURI Laboratory
The TURI Laboratory evaluated the effectiveness of safer cleaning formulations and methods for two clients by testing several protocols, as noted below:

The first company requested testing for three of their automatic dish washing powder formulations. The testing followed the American Society for Testing and Materials (ASTM) D3556 standard using two food-based soils, as well as the lab's procedure for dish washer testing using ceramic, stainless steel, and glass coupons soiled with a modified Hucker's soil. The company also requested testing for three more products: fryer cleaning, greasy floor cleaning, and coffee equipment cleaning. The greasy floor testing followed the Consumer Specialty Products Association (CSPA) DCC17 standard. The other two cleaners followed the lab's general testing procedures.

The second company requested testing for all purpose cleaning performance for Green Seal's GS 37 standard. Four products were tested using ceramic, painted steel, and plastic coupons soiled with modified Hucker's soil. A follow-up test was conducted to determine the effectiveness of the products for removing hard water stains. This was accomplished by running a marble block test, where a piece of marble is immersed into each product to determine weight loss. The greater the weight loss, the more effective the product will be at removing hard water stains.

For more information, contact: Jason Marshall, TURI, (978) 934-3133; visit: http://turicleanbreak.blogspot.com/.

Massachusetts Office of Technical Assistance (MA OTA)

Toxics Use Reduction Administrative Council
During their July 29, 2009 meeting, the Toxics Use Reduction Administrative Council voted on the following decisions pertaining to regulated chemicals:

• Retain three chemicals for reporting: aluminum sulfate; butyl acetate; and iso-butyl acetate.
• Take no action on seven chemicals currently reported. Under the 2006 TURA Amendments, these chemicals will no longer be reported by companies to the TURA program: ammonium bicarbonate; fumaric acid; maleic acid; adipic acid; ammonium chloride; amyl acetate; and ammonium sulfamate.
• Retain four iron compounds pending additional agency review and further discussion at the September 23, 2009 Council meeting, at which time, the Council will vote on whether to retain or delist the four chemicals for future reporting: ferric chloride; ferrous chloride; ferric sulfate; and ferrous sulfate.
• Table a vote on butyl acetate and iso-butyl acetate as Lower Hazard Substances until the September 23, 2009 meeting to allow additional time for review.
• Retain for future reporting the remaining 43 CERLCLA chemicals on the Toxic and Hazardous Substance list.

In the fall of 2009, amendments implementing these Council votes will be proposed to the current Toxic and Hazardous Substances regulations. A 21-day public comment period and a public hearing will be held to solicit comments on the proposed revisions to the list of reportable substances.

For more information, contact: Rich Bizzozero, MA OTA (617) 626-1080, rich.bizzozero@state.ma.us.
**New Hampshire Department of Environmental Services (NH DES)**

**Mercury Reduction**

Last year, New Hampshire's ban (RSA 149-M: 58) on the solid waste disposal of mercury-added products and mandatory thermostat recycling law went into effect. Under the law, all manufacturers must provide and publicize a program for thermostat recycling, all wholesalers must act as collection points for thermostat recycling, and all contractors are required to properly recycle any mercury-containing thermostats they remove from a building. Along with providing most of the outreach to stakeholders, New Hampshire Pollution Prevention Program (NHPPP), in conjunction with the household hazardous waste and solid waste compliance programs, conducted random site visits to over 30 of the state's solid waste facilities. NHPPP also helped facilities' staff coordinate thermostat collection programs. Most facilities were found to be in compliance with the regulatory requirements, although there was often minor labeling or storage problems.

For more information, contact: Paul Lockwood, NH DES, Paul.Lockwood@des.nh.gov.

**Lean & the Environment**

In partnership with the New Hampshire Manufacturing Extension Partnership (MEP), NHPPP has completed two site assessments as part of an EPA funded “Lean & Environment” project. Under this project, MEP and NHPPP will attempt to combine an MEP lean assessment that focuses on process improvements to increase manufacturing efficiencies, and a P2 assessment that focuses on process improvements to decrease waste generation. The Lean “Value Stream Mapping” and “Kaizen” sessions closely parallel the P2 “Process Flow Diagramming” and “P2 Brainstorming” processes that seek to better define process inputs and outputs and find manufacturing change that can create more products with less waste.

These assessments are part of a tri-state project that will combine the MEP and P2 talents of Maine, Massachusetts, and New Hampshire. The first assessment took place at a metal plating operation in Lowell, MA and the second in an electronics testing facility in Merrimack, NH. In both facilities, the team formation, information gathering, facility inspection, and alternative brainstorming sessions for Lean and P2 were easily combined and both parties were able to provide suggestions for each other’s area of focus.

**Hospitality**

The NH DES officially signed a Partnership Agreement with the New Hampshire Lodging & Restaurant Association (NHLRA) in April of this year at the New England Eco-Hospitality Expo. NH DES has been working with the NHLRA’s Sustainability Program to develop a metrics-based certification manual for both Lodging and Restaurants to be used when accepting a facility into their sustainability program. The two programs will continue their collaboration and partner to conduct educational workshops for the NH hospitality sector members on a variety of topics. The NHPPP and NHSLRP have also participated in the NEWMOA and EPA conference calls discussing the hospitality industry.

For more information, contact: Tara Mae Goodrich, NH DES, Tara.Goodrich@des.nh.gov.

**Green Slopes**

NH DES held the 3rd Annual Green Slopes meeting, titled Tanks and Teams in July. The topics this year were storage tank compliance and implementing an effective green team. In attendance were representatives from 11 New Hampshire
Green Auto Repair

NJ DEP is partnering with the Automobile Association of America’s New Jersey Chapter (AAA-NJ), the New Jersey Coalition of Automotive Retailers (NJCAR), and the New Jersey Gasoline C-Store Automotive Association (NJGCA) on a New Jersey Green Auto Repair Program (NJGARP).

Applicants are required to complete a checklist listing the “green” activities they have implemented. Each activity has a point value and a repair shop would need to achieve a certain number of points to be considered a green auto repair shop. This voluntary program will be open to all auto repair shops in New Jersey, including dealerships. Staff from AAA-NJ, NJCAR, and NJGCA will conduct audits of each applicant to determine that they are implementing all the activities stated on their application/checklist. Once it is determined that a shop is “green”, recognition is provided in the form of a decal, plaque, or sign and listing on a Green Auto Repair Shop website.

The program was launched on April 23, 2009 with an event at the AAA-NJ facility in Springfield, NJ. At the event seven facilities were awarded New Jersey Green Automotive Repair Program-certification:

- AAA New Jersey Car Care Center (Springfield)
- JD Automotive & Truck (Dover)
- James Toyota (Flemington)
- Liberty Hyundai (Mahwah)
- Long Hill Auto (Millington)
- Shade Tree Garage (Morristown)
- Toyota of Morristown (Morristown)

Since that time, four more facilities have been awarded NJGARP certification.

For more information, contact: Michael DiGiore or Ky Asral, NJ DEP (609) 777-0518; visit: www.njgreenautorepair.org.

P2 Planning

New Jersey’s P2 Planning Act and associated regulations, require facilities with certain North American Industry Classification System (NAICS) codes to prepare P2 Plans and submit P2 Plan Summaries and P2 Plan Progress Reports to NJ DEP. The P2 Plan, which remains at the facility, is required to be updated every five years, and a P2
Plan Summary is required to be submitted every five years. 2008 marked the beginning of a new planning cycle for a good portion of the regulated universe. As such, these facilities were required to submit a P2 Plan Summary by July 1, 2009.

Only 80 facilities, out of an expected 195, submitted their P2 Plan Summary by the July 1 deadline. Staff from the NJ DEP’s P2 Program called each non-complying facility to remind them to submit their P2 Plan Summary. Staff found that in many instances the facility had mistaken submittal of the annual P2 Progress Report with submittal of the five-year P2 Plan Summary. As of August 19, 2009, 148 facilities have submitted a P2 Plan Summary. The NJ DEP will be initiating enforcement actions against the remaining facilities.

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

NEW YORK

New York State Department of Environmental Conservation (NYS DEC)

Green Hospitality & Tourism

The New York State Green Hospitality and Tourism Partnership (a collection of state agencies, industry associations, and academia) has been working since the fall of 2007 to implement a Governor’s Initiative to green the State’s tourism industry.

The group is being led by staff from the Pollution Prevention Unit at NYS DEC, in partnership with the NYS Hospitality and Tourism Association, NYS Restaurant Association, I Love NY, NYS Department of Agriculture & Markets, NYS Department of Labor, NYS Office of Parks & Recreation, NYS Energy Research & Development Authority, and the NYS Pollution Prevention Institute.

The Partnership’s overall goal is to coordinate existing resources and assistance for the hospitality sector to promote “green tourism” in New York. To this end, the group has established the following objectives:

• Establish green benchmarking and NY-recognized certification for hospitality industry businesses;

• Enhance the sector’s economic and environmental performance, including:
  – Green supply chain research and development
  – Referral to assistance and incentive programs
  – Support for workforce training and education
  – Stewardship of New York State’s natural resources; and

• Provide marketing for participating businesses through “I Love NY”, including dedicated space on the “I Love NY” website.

The NYS Pollution Prevention Institute and the Audubon International/Green Leaf Eco-Rating Program for Hotels are working together under the Green Hospitality and Tourism Initiative to conduct a green hotel certification pilot program.

The Pollution Prevention Institute and Audubon International/Green Leaf will assist New York’s “Freshman Class” of 44 hotels as they analyze and improve their environmental performance. The pilot will culminate with the issuance of each hotel’s Green-Leaf Rating to recognize the hotels’ commitments to water quality and conservation, waste reduction, resource conservation, and energy efficiency.

Pilot program hotels will be able to proudly display their green certification and benefit from:

• Public recognition and marketing benefits as an environmental leader;

• Third-party, credible verification by a non-profit environmental group;

• Easy identification as an environmentally-friendly hotel for millions of travelers;

• Structure, information, tools, and advice to reduce energy, waste disposal, and other environmentally-related operating costs; and


**RHODE ISLAND**

Rhode Island Narragansett Bay Commission (NBC)

**Fats, Oil, & Grease**

The NBC, University of Rhode Island (URI) and Rhode Island Department of Environmental Management (RI DEM) are developing an Environmental Results Program (ERP) designed to improve the management and collection of waste fats, oils, and grease (FOG) generated by restaurants and food processing operations. The program 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 include: conducting on-site "before and after" FOG management assessments of each restaurant serviced by the NBC, development and use of FOG best management practices (BMPs), education on the use of FOG-related BMPS, and development of a self-certification process. Anticipated project results associated with the ERP approach include increased use of 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 are being identified through on-going initial "Baseline FOG Management Performance Assessment."

To-date NBC, using a FOG BMP checklist developed specifically for this project, has conducted more than 100 baseline assessments of local restaurants and food service establishments. Upon completion of the baseline study, NBC and URI will be initiating educational outreach efforts in the form of written BMPs and workshops. The educational portion of this project is scheduled to begin this fall.

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

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**VERMONT**

Vermont Department of Environmental Conservation (VT DEC)

**Business Environmental Partnership**

Aside from working with the lodging sector and general businesses, the VT DEC and the Vermont Small Business Development Center (VT SBDC) initiated a Green Marinas program and a Green Links program for golf courses. The Green Marinas program was piloted this summer with several marinas, and program standards will be finalized this fall. Green Links program standards have also been drafted and will be refined following a pilot program with several golf courses this fall.

*For more information, contact:* Peter Crawford, VT SBDC, pcrawford@vtsbdc.org.

**Greening Up Your Bottom Line Conference**

The Vermont Business Environmental Partnership (VBEP) is co-sponsoring the fourth annual Greening Up Your Bottom Line Conference which will take place October 21, 2009 at the Stowe Mountain Lodge. Topics include a panel discussion on the impacts on businesses of carbon policy, the nuts and bolts of carbon foot printing, greener janitorial product options, lighting beyond CFLs, understanding return on investment for energy projects, and life cycle cost analysis tools and techniques.

*For more information, contact:* Peter Crawford, VT SBDC, pcrawford@vtsbdc.org.

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• Enhanced job satisfaction and increased morale for staff through their involvement.

*For more information, contact:* Ashley Wilson, NYS DEC (518) 402-9175, alwilson@gw.dec.state.ny.us.
Auto Body Workshops
EPA and VT DEC’s Small Business Compliance Assistance Program co-sponsored three auto body workshops in July focused on the new National Emissions Standard for Hazardous Air Pollutants (NESHAP) rule requiring additional controls on emissions from spray painting operations. The new rule will require enclosed spray booths for more than 200 body shops in Vermont starting in 2011. In addition to an overview of the new rule provided by EPA, VT DEC presented an overview of Vermont environmental regulations affecting auto body shops. There were over 75 attendees at the 3 workshops. The Environmental Assistance Office (EAO) intends to provide follow up regulatory and pollution prevention assistance as a result of these workshops.

For more information, contact: Gary Gulka, VT DEC (802) 241-3626.

Governor’s Awards for Environmental Excellence
Applications for the 2010 Annual Governor’s Awards for Environmental Excellence and Pollution Prevention are being accepted through December 31. This is the 17th year of the program. Categories include pollution prevention, stewardship and resource protection, education and outreach, resource conservation, and contribution to a more sustainable future.

For more information, contact: Gary Gulka, VT DEC (802) 241-3626.

Emergency Planning Seminars
In October and November, VT DEC’s Small Business Compliance Assistance Program is co-sponsoring four workshops on Integrated Contingency Planning – The One Plan Approach to Facility Response Plans. The workshops are targeted to businesses of all types that are subject to several of the emergency response plans required by state and federal regulations.

For more information, contact: Gary Gulka, VT DEC (802) 241-3626.

Regional Climate-Waste Action Plan
The Environmental Commissioners and Directors from the New England States challenged the Northeast Waste Management Officials’ Association (NEWMOA) and the air and water interstates to identify regional activities to address climate change as a priority. As a result of this challenge, the NEWMOA Board of Directors, which includes the state environmental agency directors of pollution prevention, hazardous and solid waste management, and waste site cleanup programs, developed the Climate-Waste Action Plan. The Plan presents a strategy for mitigating and adapting to Climate Change through improving waste prevention and recycling initiatives, increasing renewable energy on contaminated sites, implementing “greener” site remediation, and improving management and recycling of disaster debris.

The Climate-Waste Action Plan is the culmination of a year and half long discussion among the NEWMOA member state Program Directors about their climate actions and waste management efforts, and how these efforts could be made more effective/leveraged through regional collaboration. Through this Action Plan, the NEWMOA-member state programs commit to sharing information, conducting research, discussing and developing joint policy actions, coordinating implementation of programs, and conducting needed training and capacity building to mitigate and adapt to climate change.

For more information, visit: www.newmoa.org/publications/NEWMOAClimate-WasteActionPlan.pdf

Mercury Science & Policy Conference
Registration is now open for the 2009 Mercury Science and Policy Conference with a Special Focus on the Great Lakes & Northeast Conference on November 17-18, 2009 in Chicago, IL. The purpose of this conference will be to connect current scientific research findings with policy. Conference objectives include:
provide current information on human health, environmental, and ecological research findings pertaining to mercury, in addition to associated policy activities

- provide a forum for evaluating advancements in reducing mercury releases

- provide a forum for discussing the scientific and public health basis for policy actions to effectively address mercury risks

- facilitate an exchange on the cross media technical, policy, and management issues pertaining to mercury

- identify high priority areas for future cost effective mercury reduction activities and strategies

- identify high priority areas for future research needed to inform policy and management decisions

NEWMOA is co-sponsoring this conference, which is funded by a grant from the EPA Great Lakes National Program Office (GLNPO).

For more information, visit: www.newmoa.org/prevention/mercury/conferences/sciandpolicy/index.cfm

Call for P2 Results

The National Pollution Prevention Roundtable (NPPR) and NEWMOA’s P2Rx Center are currently collecting 2007 P2 results data for input into the P2 Results Data System. In June 2009, the groups started collecting 2008 P2 results data. NPPR will utilize this data to help prepare a two-year national report on P2 results that covers 2007 – 2008. NEWMOA plans to summarize regional results in future issues of this newsletter. A summary of the current results for the Northeast are available on the NEWMOA website.

For more information, contact: Andy Bray, NEWMOA (617) 367-8558 x306, abray@newmoa.org; visit: www.newmoa.org/prevention/measurement/index.cfm.

Energy & Materials Flow & Cost Tracker Version 1.0 Released

NEWMOA and the Massachusetts Office of Technical Assistance (OTA) for Toxics Use Reduction have released the materials use and profitability software tool, called Energy & Materials Flow & Cost Tracker (EMFACT™) Version 1.0. EMFACT™ is designed to be used within companies for systematically tracking materials and energy use; releases, discharges, and wastes; and associated costs in ways that can create value for their business. The tool can provide a comprehensive picture of resource use and its relation to production and planning that can help improve both business and environmental performance.

EMFACT™ addresses the need and opportunity for manufacturers to more effectively implement environmental management accounting as a key tool to aid in setting P2 priorities, identifying value-added opportunities for sustainable production, and implementing materials and energy efficiency improvements. EMFACT™ can be a useful adjunct for compliance assurance, quality management, lean manufacturing, environmental management systems, productivity and resource efficiency improvements, and preventing accidents and losses.

EMFACT™’s benefits to its users are:

- Easy navigation and data management

- Connecting material inputs and all outputs, including products, wastes, and other environmental releases to estimate mass balances and flows

- Effective tracking of all material inputs, including chemicals, commodities, and fuels, and their associated costs

- Effective tracking of all wastes, wastewater discharges, and air emissions

- Automated reminders and notices about upcoming reporting and other deadlines

- Automated reports on materials use efficiency and environmental releases

- Easy transfer of data to spreadsheets for further analysis and reports

The primary beneficiaries of EMFACT™ are those companies and organizations that use it to aid them in setting P2 priorities, identifying value-added opportunities for sustainable production, and implementing other materials and energy efficiency improvements. State and local environmental and technical assistance programs and private sector consultants also benefit by having the tool to help their client companies identify P2 opportunities and quantify the benefits and costs.

NEWMOA received funding from the EPA Office of Research and Development Collaborative Science and Technology Network for Sustainability to support phase I of EMFACT™ development. NEWMOA contracted with Sullivan International Group to develop the EMFACT™ tool and to provide training support.

To download EMFACT™ and the supporting materials, visit: www.newmoa.org/prevention/emfact/register.cfm.
# NORTHEAST ASSISTANCE & P2 CALENDAR

<table>
<thead>
<tr>
<th>TITLE</th>
<th>SPONSOR</th>
<th>DATE / LOCATION</th>
<th>CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greening the Supply Chain</td>
<td>Greentech Media</td>
<td>September 17; Boston, MA</td>
<td><a href="http://www.greentechmedia.com/events/live/greening-the-supply-chain">www.greentechmedia.com/events/live/greening-the-supply-chain</a></td>
</tr>
<tr>
<td>Technology Transfer Seminar on Nutrient Control at Municipal Wastewater Treatment Plants</td>
<td>EPA Region 1</td>
<td>September 22-24; Marlborough, MA</td>
<td><a href="http://www.epa.gov/region01/npdes/NutrientControlSeminar.pdf">www.epa.gov/region01/npdes/NutrientControlSeminar.pdf</a></td>
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<tr>
<td>WasteCon 2009</td>
<td>SWANA</td>
<td>September 22-24; Long Beach, CA</td>
<td><a href="http://wastecon.swana.org">wastecon.swana.org</a></td>
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<tr>
<td>7th Annual SWANA Mass Chapter Recycling &amp; Waste Conference</td>
<td>SWANA</td>
<td>October 1; Westborough, MA</td>
<td><a href="http://www.swana.org">www.swana.org</a></td>
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<td>Ultraviolet (UV) &amp; Electron Beam (EB) Curing</td>
<td>NYSEDA</td>
<td>October 20-21; Niagara Falls, NY</td>
<td><a href="http://www.uvebeast.com">www.uvebeast.com</a></td>
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<tr>
<td>Greening Up Your Bottom Line</td>
<td>VT SBDC</td>
<td>October 21; Stowe, VT</td>
<td><a href="http://www.vtsbdc.org">www.vtsbdc.org</a></td>
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<tr>
<td>massPLASTICS Trade Show</td>
<td>massPLASTICS</td>
<td>October 21-22; Fitchburg, MA</td>
<td><a href="http://www.massplastics.com/?wrk=1">www.massplastics.com/?wrk=1</a></td>
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<tr>
<td>EPP Vendor Fair</td>
<td>MA OSD</td>
<td>October 27; Worcester, MA</td>
<td><a href="http://www.mass.gov/eppfair">www.mass.gov/eppfair</a></td>
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<tr>
<td>NERC’s 2009 Fall Conference</td>
<td>NERC</td>
<td>October 27-28; Northampton, MA</td>
<td><a href="http://www.nerc.org">www.nerc.org</a></td>
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<tr>
<td>P2 &amp; Sustainability Conference</td>
<td>WSPPN</td>
<td>October 28-29; San Diego, CA</td>
<td><a href="http://www.wsppn.org">www.wsppn.org</a></td>
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<tr>
<td>Water Resiliency: Adapting Water Supply to Changing Climate, Land Use, &amp; Regulation</td>
<td>EPA &amp; NEWWA</td>
<td>November 3; Milford, MA</td>
<td><a href="http://www.newwa.org">www.newwa.org</a></td>
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<tr>
<td>Improving the Health of Workers &amp; The Environment</td>
<td>TURI</td>
<td>November 4-5; Lowell, MA</td>
<td><a href="http://www.turi.org">www.turi.org</a></td>
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<tr>
<td>Hazardous Materials Management Conference</td>
<td>NAHMMA</td>
<td>November 9-13; Houston, TX</td>
<td><a href="http://www.nahmma.org/cde.cfm?event=189006">www.nahmma.org/cde.cfm?event=189006</a></td>
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<tr>
<td>North American Environmental Field Conference</td>
<td>Nielsen Environmental</td>
<td>January 12-14, 2010; Tampa, FL</td>
<td><a href="http://www.envirofieldconference.com">www.envirofieldconference.com</a></td>
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<tr>
<td>Pesticide &amp; Ag Plastics Stewardship</td>
<td>The Pesticide Stewardship Alliance</td>
<td>February 21-24, 2010; Savannah, GA</td>
<td><a href="http://tpsalliance.org/conference/Introduction.htm">tpsalliance.org/conference/Introduction.htm</a></td>
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<tr>
<td>Electronics &amp; Sustainability: Design for Energy &amp; the Environment Symposium</td>
<td>Sustainable Electronics Initiative (SEI)</td>
<td>February 23-24, 2010; Champaign, IL</td>
<td><a href="http://www.sustainelectronics.illinois.edu">www.sustainelectronics.illinois.edu</a></td>
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For more up-to-date listings of upcoming events, visit [www.newmoa.org](http://www.newmoa.org)
Northeast Waste Management
Officials’ Association
129 Portland Street, 6th floor
Boston, MA 02114

Northeast Assistance & Pollution Prevention News
Seeks to Reduce Paper Waste
NEWMOA is transitioning delivery of the newsletter from hard copy to electronic for as many readers as possible to save money on printing and to reduce paper use. We plan to transition all readers to electronic delivery, unless they inform us that they would prefer to receive a hard-copy. Please send an email to lmakina@newmoa.org if you wish to continue receiving a hard-copy version of the newsletter. We would also appreciate your comments and suggestions on how we can improve the newsletter.

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   I have included my email address below.

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