



NORTHEAST Assistance & Pollution Prevention News

FEATURE ARTICLE

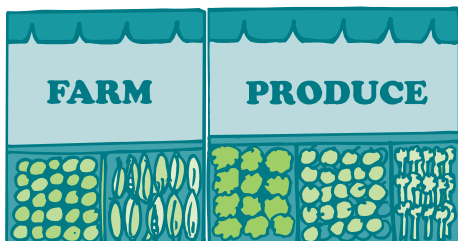
Greening the Grocery Sector

How many times a week do you visit your local grocery store? Probably one or more; after all, you need to eat. Have you ever thought about all of the materials, water, and energy needed to operate the store? Whether you shop at a large supermarket chain, a small independently-owned neighborhood grocer, or a local farmers market – the choices you make can affect your health and the environment.

There are lots of sustainability measures that grocery stores can take, including reducing stormwater runoff from parking lots, increasing energy efficiency and water conservation, selling locally grown and organic food, using environmentally preferable products and packaging, and properly managing products such as cleaning chemicals and compact fluorescent lamps. Several of NEWMOA's members have begun to assist grocery stores with adoption of these and other pollution prevention (P2) activities. The articles below showcase some of their progress.

CT Grocers Use Multi-media Approach

Connecticut grocers support the local community and the environment through many initiatives. Locally grown fruits and vegetables are no longer found only at farmers markets; most supermarkets in Connecticut now offer them as well. Buying from nearby farms reduces transportation costs and the associated pollution, provides customers with fresher food, and helps local farms thrive.



Connecticut supermarkets are required to recycle corrugated cardboard, glass bottles, cans, and plastics. Some stores further reduce the amount of waste they dispose of by separating out spoiled produce, flowers, plants, and other food and paper scraps and sending them to facilities that

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THE NORTHEAST WASTE MANAGEMENT OFFICIALS’ ASSOCIATION (NEWMOA)

NEWMOA is a non-profit, non-partisan interstate governmental association. The membership is composed of state environmental agency directors of the pollution prevention, hazardous and solid waste, and waste site cleanup programs in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

NEWMOA’s mission is to develop and sustain an effective partnership of states 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 multi-media 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 ext. 302, tgoldberg@newmoa.org; visit www.newmoa.org/prevention.

turn them into compost. Reducing this waste saves money and reduces greenhouse gas emissions – and the end-product, compost, provides customers with richer soil for well-nourished plants. Some supermarkets, such as Big Y, are participating in EPA’s Food Recovery Challenge, which helps them create a food waste recovery plan to reduce, donate, and recycle as much food waste as possible.



Some stores have found ways to reduce pollution from stormwater runoff by making changes to landscaping and parking lots. Buildings, pavement, and other impervious surfaces prevent rainwater from sinking into the ground. Instead it flows into nearby lakes, rivers, and streams, picking up pollutants along the way. The Stop & Shop in Torrington designed their parking lot so that stormwater flows into depressed landscaped islands that hold and filter the water. Any excess can easily flow to storm drains and shallow grassed swales that manage off-site drainage.

According to EPA’s Energy Star program, grocery stores are the most electricity-intensive type of commercial building. Installing LED lights for refrigerated and frozen foods and highly efficient T-5 fluorescents for other areas; using dimmers and occupancy sensors; integrating day-lighting; and making use of systems to control lighting

NORTHEAST Assistance & Pollution Prevention News

Northeast Assistance & Pollution Prevention News is published a few times per year by NEWMOA’s Northeast Assistance & Pollution Prevention Roundtable (NEA & P2 Roundtable). The publication is provided free to the Northeast states, EPA, and other interested individuals and is supported by funds from EPA Region 1-New England and the Northeast States.

The NEA & P2 Roundtable would like to thank the following people for writing and producing this newsletter: Karen Angelo, MA TURI; Julie Churchill, ME DEP; Mike DiGiore, NJ DEP; Rich Enander, RI DEM; Rob Guillemin, EPA Region 1; Gary Gulka, VT DEC; Erica Hernandez, NYS P2; Timothy Kirchgraber, NYS DEC; Jim McCaughey, NBC; Christopher MacIsaac, MA OTA; Alex Peck, EPA Region 2; Kim Trella, CT DEP; Paul Walsh, MassDEP; and Melissa Zych, NH DES. Rachel Smith managed the production of the newsletter.

Please use the form included in this issue to request an address change, to add your name to the mailing list, or to request a hard-copy version of the newsletter.

and temperature are simple ways to reduce a store's energy use. By following these practices, the Price Chopper in Middletown reduced its energy consumption by over 50 percent. Renewable energy offers another opportunity for innovation. The Price Chopper in Middletown and Whole Foods in Glastonbury are examples of stores powered by fuel cells. There are also a few grocery stores and distribution centers in Connecticut that utilize solar panels to generate a portion of their electricity.

Commonly used refrigerants contain hydro-chlorofluorocarbons that deplete the ozone layer and are potent greenhouse gases. EPA's GreenChill program helps supermarkets transition to environmentally-friendlier systems using natural refrigerants. The Stop & Shop in West Hartford was the first supermarket in the State operating with this technology. Other stores have also curbed emissions from their refrigerators. Whole Food's reduced emissions from their 8 locations by 17 percent a year. McQuade's Marketplace in Mystic implemented advanced refrigeration technology and improved maintenance practices.

For more information, contact: Kim Trella, CT DEEP, kim.trella@ct.gov.

ME Grocers Become Environmental Leaders

The Maine Department of Environmental Protection's (DEP) Office of Assistance launched a voluntary Environmental Leader certification program for grocery stores in partnership with the Maine Grocers Association (MGA) at the MGA 2010 Spring Forum membership event. Supported by an EPA grant, the grocery store initiative builds on Maine's lodging and restaurant certification programs, which include P2 and compliance assistance, as well as recognition.

ME DEP staff provide grocery stores with technical assistance, including recommendations for P2 opportunities in the areas of stormwater management, administrative practices, cleaning chemicals, waste management, recycling, composting, energy and water conservation, refrigeration, heating and ventilation systems, locally sourced foods and products, and environmental education for customers and staff. If the store implements any of these measures, they can receive points toward a sustainability certification. Certified properties can display Environmental Leader logo decals, certificates, and flags on their property and in their advertisements. Maine DEP also recognizes facilities through press events and media outlets.

The program has been a great success with 23 certified grocery stores, including small independent stores and large supermarket chains throughout the State. Hannaford Supermarkets has certified 13 stores.

Maine DEP looks forward to increasing participation in its Environmental Leader program and providing technical assistance and recognition to its green grocery stores. The Agency is working with other states, EPA, and NEWMOA to develop a regional initiative for grocery stores where large Maine supermarkets also have a strong regional presence.

For more information, contact: Roy Krout, ME DEP (207) 287-8550; Julie Churchill, ME DEP (207) 287-7881; visit: www.maine.gov/dep/assistance.

MA Promotes Recycling, Composting, & Reducing Waste

The Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Food Association (MFA) have established two partnerships that reduce waste and increase recycling and composting at supermarkets.

Through the Supermarket Recycling Certification Program, approximately 300 stores have committed to recycle cardboard and plastic wrap/shrink wrap and divert food waste to donation programs or composting. Supermarkets that certify through the program are exempt from waste ban inspections at disposal facilities and save money by reducing disposal costs.

As part of the voluntary initiative, 384 stores from 12 supermarket chains track their annual paper and plastic bag usage. Participating chains reported a 33 percent reduction in disposable bag distribution in the State from 2007-2011.

MassDEP and the MFA have established a partnership to reduce the use of disposable bags at supermarkets.

As part of the voluntary initiative, 384 stores from 12 supermarket chains - Big Y, Crosby's, DeMoulas Market Basket, Donelan's, Foodmaster, Hannaford, Price Chopper, PriceRite, Roche Bros., Shaw's, Stop & Shop, and



Trucchi's – track their annual paper and plastic bag usage. Participating chains reported a 33 percent reduction in disposable bag distribution in the State from 2007-2011.

Each supermarket chain has implemented steps to reduce the use of disposable bags, including training staff to reduce wasteful distribution of bags, offering reusable bags for sale, providing cash incentives for reusable bag use, accepting used plastic bags for recycling, and posting instructional signs reminding patrons not to forget to bring their reusable bags. MassDEP has also created a consumer brochure entitled "Sack the Bag" to encourage shoppers to use fewer disposable bags.

For more information, contact: John Fischer, MassDEP (617) 292-5632; visit: www.mass.gov/dep/recycle/supermkt.htm.

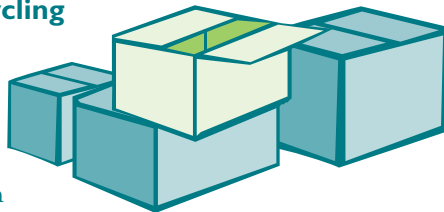
Southeast MA Recycling Outreach Initiative

In the spring of 2011, MassDEP's Southeast Regional Office (SERO) implemented an outreach initiative to assess the level of waste ban awareness in the retail sector, specifically in stores that manage a large quantity of cardboard, such as convenience, liquor, and large chain grocery stores. Volunteers also requested data on the handling of spent fluorescent lamps and compliance with anti-idling regulations.

Prior to going out into the field, volunteers participated in a short training that covered the basics of the regulations, a walkthrough of a typical site visit, and an overview of visit protocols. Volunteers were also given packets of outreach materials to give to the stores.

Volunteers completed 147 site visits at stores throughout Barnstable, Bristol, and Plymouth counties and submitted checklists on the data they collected. The results suggested that large stores are successful at keeping recyclable materials out of landfills (98 percent utilize dedicated cardboard services). However, convenience stores are less successful in using basic recycling services (68 percent utilized the same services).

For more information, contact: Jennifer Viveiros, MassDEP (508) 946-2739.



NH's Future Grocery Store Initiative

The New Hampshire Pollution Prevention Program (NHPPP) is applying for an EPA P2 grant to begin a two year green initiative for the grocery sector. NHPPP supports the efforts of NEWMOA and its member states to collaborate on a regional green grocery initiative. NHPPP has met with the New Hampshire Grocers Association, which represents 800 members in the food distribution industry, including convenience stores, neighborhood markets, supermarkets, suppliers, and manufacturers of consumable products, and will seek help from this organization to carry out the project.

For more information, contact: Melissa Zych, NH DES, melissa.zych@des.nh.gov.

VT Recognizes Green Businesses

The Vermont Business Environmental Partnership (VBEP) runs a voluntary recognition and assistance program for businesses that meet various environmental standards, participate in an initial on-site opportunity assessment, and report annually on implementation of environmental measures. The program began in 1998 and was designed for businesses of any type. A sector-specific Green Hotels program followed and more recently, sector-specific initiatives for Clean Marinas, Green Links (golf courses), and Green Restaurants. There are 192 members designated as Environmental Partners and Environmental Leaders.

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Because of the strong emphasis on food in the restaurant sector, it seemed like a natural progression to develop a program for grocery stores. The large number of these establishments and their significant environmental footprint made this sector rise to the top of the list of new candidates. With the launching of Maine DEP's Environ-



WEB RESOURCES

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

Food Recovery Challenge is part of EPA's Sustainable Materials Management Program. The program challenges participants to reduce their food waste through prevention, donation, and composting – saving money, helping communities, and protecting the environment.

www.epa.gov/wastes/conservesmm/foodrecovery/index.htm

GreenChill is an EPA partnership with food retailers to help them reduce refrigerant emissions, thereby reducing their impact on the ozone layer and climate change.

www.epa.gov/greenchill/

CT Grown identifies agricultural food products grown in Connecticut. Several supermarkets carry local products that display this program logo.

www.ct.gov/doag/cwp/view.asp?a=3243&q=398984

Gulf of Maine Research Institute (GMRI)'s Sustainable Seafood Initiative is working with several supermarket chains in Maine, including Hannaford, Food Lion, Bloom, and Sweet Bay

to help source seafood products responsibly.

Together, they have developed sourcing criteria, and are evaluating seafood options against those criteria, promoting local and sustainably harvested seafood to consumers.

www.gmri.org/community/seafood.asp

Maine's Environmental Leader Program for Grocery Stores is a self-guided process

that encourages grocers to implement sustainable initiatives.

www.maine.gov/dep/assistance/greencert/grocery.html

Sustainable Table celebrates local sustainable food, educates consumers on food-related issues, and works to build community. The website hosts the "Eat Well Guide," an online directory of sustainably-raised meat, poultry, dairy, and eggs from farms, grocery stores, restaurants, bed and breakfasts, and other outlets in the U.S. and Canada.

www.sustainabletable.org

mental Leader program for grocery stores, the groundwork was laid for starting a similar program in Vermont. In the fall of 2011, with the general support of the Vermont Grocers' Association, VT Department of Environmental Conservation (DEC) and the VT Small Business Development Center (SBDC) drafted an "Environmental Leader Workbook for Grocery Stores". The draft program uses a system that requires participating stores to achieve a certain number of points by implementing best management practices across various categories, including administrative

operations; cleaning chemicals; waste reduction, reuse, and recycling; maintenance and landscaping (including stormwater management); water conservation; energy conservation; education; and sustainable food purchasing.

The next step will be to finalize the draft Workbook this spring and to share it with the NEWMOA Grocery Workgroup (see sidebar on page 6), as well as the Vermont Grocers' Association. Vermont hopes to pilot a Green Grocer's initiative with one or more supermarket chains

and a few small grocers to further refine the program before a full launch in the fall.

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

EPA P2 Grant for Green Supermarkets

In 2012, EPA Region 2 awarded a P2 grant to the Center for Building Knowledge at the New Jersey Institute of Technology (NJIT) for a project entitled, “Smart Supermarkets: Energy and Hazardous Waste Reduction Program for the Supermarket Sector.” Over the next two years, this project will develop and implement an online training toolkit for supermarket personnel to evaluate available strategies for improving energy efficiency and reducing pollution, including refrigerant leakages. The project includes an Advisory Group, consisting of supermarket representatives, NJIT faculty, local utilities, and other potential stakeholders. The effort will leverage EPA resources, such as the Energy Star, GreenChill, Design for the Environment, and Green Chemistry programs.

For more information, contact: Walter Schoepf, EPA Region 2 (212) 637-3729, schoepf.walter@epa.gov; Paul Romano, NJIT, (973) 596-3098, paul.romano@njit.edu.

Over the next two years, this project will develop and implement an online training toolkit for supermarket personnel to evaluate available strategies for improving energy efficiency and reducing pollution, including refrigerant leakages.

Regional Green Grocers Workgroup

Last fall, NEWMOA held a series of conversations about starting a regional initiative to promote sustainable grocery stores. Maine has completed a successful pilot certification program for grocers, and several other states, including New Hampshire and Vermont, are pursuing a similar initiative. Grocery stores are often part of a larger chain that spans multiple states, and a regional project would help facilitate a model program to be implemented chain-wide.

NEWMOA formed a Green Grocers Workgroup to oversee the implementation of the proposed regional initiative during the winter. Membership in this Workgroup consists of “participating” states (i.e., those that are actively pursuing work with the sector), and “listening” states (i.e., those that do not have grocery programs but are interested in learning from others). NEWMOA is currently developing a work plan that outlines planned activities and next steps, as well as the roles and responsibilities for Workgroup members.

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

Leading a “Green” Grocery Store:

An Interview with George Parmenter, Manager of Sustainability, Hannaford Supermarkets

Corporate social and environmental responsibility has long been a tradition at Hannaford Supermarkets. In July 2009, their grocery store in Augusta, ME became the first supermarket in the U.S. to receive platinum-level LEED certification, the highest standard from the U.S. Green Building Council. In 2010, Hannaford launched their sustainable seafood policy to ensure that all seafood

products sold in their stores are harvested in a sustainable manner. Mr. Parmenter spoke with NEWMOA staff to discuss their efforts.

For more information, visit:

www.hannaford.com/content.jsp?pageName=CorpResp&leftNavArea>AboutLeftNav.

Leading a “Green” Grocery Store:

An Interview with George Parmenter, Manager of Sustainability, Hannaford Supermarkets (Continued)

NEWMOA: Tell me about Hannaford’s sustainability program. What are your goals for this program?



Mr. Parmenter: Our Sustainability Program is very broad, as it covers both the products that we sell and the services that we provide – part of our “People, Products, Planet” strategy. It is a core component of the Hannaford brand and something that we have been focused on for a long time; we just didn’t have a name for it before. Hannaford’s has sold reusable grocery bags in its store

since 1984, long before they were in vogue. Energy efficiency has always been a high priority, and most stores have implemented some energy efficient practices for over 10 years. Ultimately, Hannaford strives to mitigate the impacts from its grocery stores as much as possible.

NEWMOA: What are some of the sustainable practices that you have implemented at the stores? Are there any activities that are unique to Hannaford’s program?

Mr. Parmenter: Hannaford boasts a 67 percent waste diversion rate chain-wide, which we think is relatively high compared to other supermarket chains. We are also a big proponent of energy conservation. The Hannaford store in Augusta, Maine is unique in that it’s the only Leadership in Energy and Environmental Design (LEED) platinum-level certified supermarket in the U.S. In addition, five of our other stores are silver- and gold-level LEED certified.



NEWMOA: Are there activities that you tried that did not work out, and if so what were the issues that you faced? How did you address them?

Mr. Parmenter: The key challenge when evaluating a particular activity or sustainable practice is usually its cost-effectiveness. For example, in our Augusta store we constructed a salad bar using recycled glass; however, the materials were very expensive so this wasn’t something

that we could replicate at all our stores. But we will keep evaluating it as option and perhaps one day this will become cost-feasible – as most new technology eventually does. Several years ago light-emitting diode (LED) lighting was very expensive, so we had a difficult time implementing this lighting in all of our stores. Since then, the price has come down, and we are retrofitting most lighting applications with LEDs. Incentives also help make the business case when evaluating a new technology or practice. We have been able to receive renewable energy credits for some of our stores with solar lighting.

NEWMOA: How do you measure the financial and/or environmental benefits associated with these practices?

Mr. Parmenter: All of the sustainable practices that we choose to implement must make sense financially and enhance the brand reputation. Hannaford uses sophisticated energy management tools for all of our power systems, providing real-time data. We also track waste and recycling quarterly, and prepare an annual report on these savings. This includes the income we get from recovered materials. For our LEED-certified stores, one of the main benefits from a health and environmental perspective is the improved indoor air quality. Utilizing natural lighting, thermal heating, and non-volatile organic compound (VOC) paints or finishes, enhances the comfort level for both employees and customers. We conduct surveys of our customers on an ongoing basis, as well as an annual employee satisfaction survey.

NEWMOA: What are some of the other benefits you have seen since you’ve started this program?

Mr. Parmenter: It’s all about customer satisfaction and getting our customers to have a positive experience so that they continue to patronize our stores. Hannaford supermarkets have received a lot of public recognition in the media. For example, when the Augusta store opened a few years ago, the local media ran several stories about the environmental activities associated with its LEED certification. This all helps to build the brand and enhance our credibility.

Leading a “Green” Grocery Store:

An Interview with George Parmenter, Manager of Sustainability, Hannaford Supermarkets (Continued)

NEWMOA: How has your involvement with Maine DEP’s Environmental Leader pilot certification program benefited Hannaford stores?

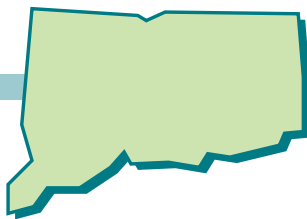
Mr. Parmenter: The Maine Environmental Leader Program was a great way to formalize what we were already doing and better understand where there were opportunities for us to do more. For example, we found ways to increase our waste diversion rate by recycling materials that we hadn’t even considered previously. The way that Maine’s program is structured, it includes very specific things that stores can do to engage employees in the process (e.g., have employees sign letters of commitment, participate in environmental education trainings). We found that these practices were very powerful for increasing employee morale and making them feel part of the process. We were able to engage employees in ways that we hadn’t before, and we saw a big shift. Our employees were able to understand the reasons why we were doing things and became excited about them. They recycled because they wanted to do it, rather than being forced to do so. We’ve seen a permanent behavior change as a result of these simple activities. Maine’s recognition program is quite an accomplishment, and we are eager

to roll it out across all of our stores. The “continuous improvement” system that it utilizes is exciting because Hannafords is always striving to be the best it can be. It has helped us develop better relationships and partnerships with government and industry.

NEWMOA: Some of the Northeast states are exploring the possibility of a regional recognition program for grocery stores. What are your thoughts about a multi-state approach that recognizes leaders and promotes continuous improvement?

Mr. Parmenter: There are 179 Hannaford stores in 5 states (i.e., MA, ME, NH, NY, and VT) so a regional recognition program that would apply to all of our stores chain-wide is almost necessary. We wouldn’t really want a situation where states have different criteria and reporting requirements because this would be an administrative burden and it would be difficult to manage and organize. It makes the most sense to implement sustainable practices at the corporate level so that all of our stores can take part. This way, the impact will be greater and will get us more results. For example, we already have a corporate recycling policy that all stores follow. Bottom line – it is a great idea and something that Hannafords would support.

PROGRAM UPDATES



CONNECTICUT

Connecticut Department of Energy & Environmental Protection (CT DEEP)

More Green Hotels Certified

CT Green Lodging has certified 32 hotels to date, and staff conducted one site visit in the last month. An intern is working on a one-minute promotional video for the program.

Green Cleaning Webinar

CT DEEP and the CT Dept. of Public Health (DPH) have partnered on a Healthy Homes Initiative to promote healthy and safe homes. They hosted a webinar on “Green Cleaning in the Home: Breathe Easy While Cleaning.” The webinar was well received – with nearly 100 participants from all over the U.S., including local government officials, housing specialists, and public health nurses.

For more information, contact: Judy Prill, CT DEEP, Judith.prill@ct.gov; Mary Sherwin, CT DEEP, mary.sherwin@ct.gov.

Hospital Workshop Planned

The CT Hospital Environmental Roundtable (CHER) is holding a workshop on landscaping and stormwater

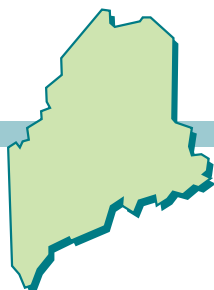
management techniques on May 16th in cooperation with the CT Hospital Association.

For more information, contact: Nan Peckham, CT DEEP, nan.peckham@ct.gov; Connie Mendolia, CT DEEP, connie.mendolia@ct.gov.

Auto Repair Factsheets Updated

The “Pit Stop” factsheets designed for auto repair/auto refinishing shops are being updated. DEEP will distribute them at training workshops for auto trade associations this summer and fall. The first workshop is with the Auto Retailers Association and will be held on June 15th.

For more information, contact: Judy Prill, CT DEEP, Judith.prill@ct.gov.



MAINE

Maine Department of Environmental Protection (ME DEP)

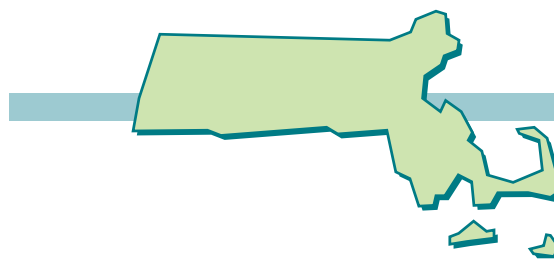
Agency Integration

The Office of Assistance has launched the Facility Manager Pilot Project to assist ME DEP in identifying efficiencies, increasing internal and external communication, developing multi-media tools, and transitioning to a multi-media agency with integrated services. The project was announced in January 2012 and involves nine facilities and eight DEP staff members.

Multi-Media Technical Assistance

The Office of Assistance helps educate Maine’s regulated community on many multi-media compliance issues ranging from area source rules to spill prevention, control, and countermeasures (SPCC) plans. Staff is also involved with permitting coordination for business expansions and start-ups. An initiative spawned out of these efforts is the development of a comprehensive environmental management system (EMS) for one sector.

For more information, contact: Julie Churchill, ME DEP (207) 287-7881.



MASSACHUSETTS

Massachusetts Department of Environmental Protection (MassDEP)

Mercury Emissions Reduced by 91 Percent

In December, 2011, the Governor’s Office announced that toxic mercury air emissions in Massachusetts have fallen by 91 percent since 1996 – far exceeding the 2010 interim goal of a 75 percent reduction (see page 18). The reductions were accomplished in part by the Administration’s comprehensive efforts targeting mercury pollution from municipal waste combustors, coal-fired power plants, mercury-added products, and other sources.

Since 1996, annual mercury emissions from municipal waste combustors declined by 96 percent, and emissions from medical waste incinerators were eliminated. Massachusetts has also adopted strong regulations on coal-fired power plants, requiring mercury emissions to be controlled by 95 percent by 2012.

For more information, visit:

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

Increasing Public Awareness of Textile Recycling

MassDEP is partnering with the textile recycling industry to increase public awareness of textile recycling. The campaign is sponsored by the Secondary Materials and Recycled Textiles Association (SMART), a non-profit, trade association that promotes reclamation, conversion, and recycling of textiles.

The donation of clothing, shoes, linens, and bedding supports a thriving industry across the country. Charities such as Goodwill, Salvation Army, and St. Vincent DePaul report that 15-20 percent of the clothing they receive as donations are sold in their retail stores. The items they can’t sell are sold to textile brokers that sort and grade the material into categories. About 45 percent is sent to developing countries as wearable clothing, 30 percent is sent to companies that convert them into industrial wiping cloths, and the remainders are sent to fiber converters to be broken down into basic fiber components and re-manufactured into insulation, carpet padding, or sound-proofing materials.

MassDEP and SMART held a textile recycling summit in the fall of 2011 with stakeholders from the public, private, and non-profit sectors to discuss how to increase recovery of post-consumer textiles for reuse and recycling in Massachusetts. More than 230,000 tons of usable textiles - clothing, footwear, towels, bedding, and other fabric-based products - were sent to Massachusetts landfills and incinerators in 2010. Ninety-five percent of this material can be recycled or repurposed. The five percent of materials that are disposed of as trash are either wet/mildewed or contaminated with oil, paint, or another hazardous material.

Between January and March 2012, MassDEP held four regional meetings with municipal recycling coordinators to enlist their support in increasing public awareness of textile recycling. Over 140 municipal officials attended the meetings, which featured a panel of textile recycling organizations. Panelists emphasized the importance of recycling all textile products, regardless of their condition, and described textile recycling as a means of reducing municipal trash disposal costs while supporting local businesses.

For more information, contact: Brooke Nash, MassDEP (617) 292-5984; Paul Bailey, SMART (410) 420-2001.

Massachusetts Office of Technical Assistance and Technology (OTA)

Company Reduces Chloroform Use

In 2005, ChemGenes Corporation, a biotechnology company located in Wilmington, requested an assessment from MA OTA on their use of volatile organic chemicals. The company replaced much of their chloroform with a blend of hexane and ethyl acetate, and invested in a new chromatography system that significantly improved process efficiency. From 2007-2010 ChemGenes reduced their use of chloroform and hexane by 45,600 and 9,403 pounds, respectively and has achieved a net savings of \$215,000 due to reduced chemical purchases, regulatory fees, disposal costs, and increased productivity.

For more information, contact: MA OTA (617) 626-1060.

Company Saves Money with Energy Efficiency Projects

Delaware Valley Corporation, a family-owned specialty non-woven textile manufacturer with facilities in Lawrence and Tewksbury, installed an air-to-air heat exchanger to recover heat from two of their textile heat setting ovens. The heat exchanger cost less than \$27,000 to purchase and install, and the company experienced less than a 1-year payback from energy savings. To date, the company has

achieved a savings of \$93,317. They recently installed 2 additional heat exchangers to capture waste heat from all of their ovens, as well as a 100 kilowatt (kw) solar generating system, with an expected savings of \$19,000 per year.

For more information, contact: MA OTA (617) 626-1060.

Company Implements Renewable Energy

Mark Richey Woodworking of Newburyport recently installed a wind turbine. The turbine is expected to produce 1 gigawatt hours of power annually, generating 70 percent of the energy output for a 130,000 square foot industrial facility. In its first 60 working days, it produced 192 Megawatt (Mw) hours, enough to power 130 homes for a year. The return on investment is estimated at eight years.



For more information, contact: John Raschko, MA OTA (617) 626-1093; visit: www.markrichey.com/our_facility/wind-turbine-generator.cfm.

Company Achieves Energy & Cost Savings

Since 2005, Gentex Optics, located in Dudley has implemented several energy efficient projects that have saved more than 11 million kilowatt hours (kWh) in electricity and \$1.4 million dollars. The replacement of 3 process chillers with 2 high energy efficiency water cooled chillers produced a savings of 1.17 million kWh/year (a 73 percent reduction), corresponding to an annual cost savings of more than \$140,000 per year. Gentex received a rebate of



Rapid Response

The Rapid Response Service provides an aid for 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

\$450,000 from National Grid (NGRID) for this project, reducing the payback from 5.7 to 3.4 years. Another successful project involved heat recovery from electric curing oven exhaust for use in preheating the fresh air intake to the oven. This measure reduced electricity consumption by 50 percent, resulting in a savings of \$6,142 per oven per year, with a 13-month payback period.

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

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Massachusetts Toxics Use Reduction Institute (TURI)

Conference Focused on Green Chemistry

TURI hosted a Continuing Education Conference on April 12th in Newton. The event featured keynote speaker Paul Anastas, Assistant Administrator for EPA's Office of Research and Development. He discussed current trends in P2 and green chemistry. Other session topics included chemical safety, safer alternatives, and supply chain management.

For more information, contact: Mark Myles, TURI (978) 934-3298, mark.myles@turi.org.

Green Cleaner Workshop Held

The Brazilian Women's Group, a recipient of a TURI community grant, hosted a free "Natural Cleaning" workshop on April 9th at the UMass Lowell Inn & Conference Center in Lowell. Attendees learned how to mix glass, floor, and all-purpose cleaners.

For more information, contact: Maria Scholl, TURI (978) 934-4964, maria_s@turi.org.



Organic Lawn Festival Planned

TURI and the Pioneer Valley Planning Commission are hosting a family fun day "Lawnathon Festival – Outdoor Games and DIY Creating a Lush and Organic Lawn" event on May 12th (rain date is May 13th) at Look Memorial Park in Florence. Paul Tukey, author of "The Organic Lawn

Paul Tukey, author of "The Organic Lawn Care Manual" and "Tag, Toss, & Run," will speak about getting children away from video games and television and reconnected to the outdoors. The event is meant to increase awareness about how to reduce pesticide use and prevent contamination of local waters.

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For more information, contact: Maria Scholl, TURI (978) 934-4964, maria_s@turi.org.

MA Designates Higher Hazard Substances

The Toxics Use Reduction Act (TURA) Administrative Council designated hexavalent chromium compounds and formaldehyde as higher hazard substances and added 16 chemicals to the TURA list of toxic or hazardous chemicals. The designations require additional companies to report on the use of these chemicals and evaluate whether there are cost-effective ways to reduce them. The regulations, which took effect January 1st, increase the number of companies required to report by about 20.

Additional chemicals – 1-Amino-2,4-dibromoanthraquinone; 2,2-bis(Bromomethyl)-1,3 propanediol; Furan; Glycidol; Isoprene; Methyleugenol; Nitroanisole; Nitromethane; Phenolphthalein; Tetrafluoroethylene; Tetranitromethane; Vinyl Fluoride; 1,6-Dinitropyrene; 1,8-Dinitropyrene; 6-Nitrochrysene; and 4-Nitropyrene – were added to the TURA list of toxic or hazardous chemicals. MassDEP estimates that these 16 chemicals are not used in significant quantities in Massachusetts, and

most likely the new designation will not impact businesses.

For more information, visit: www.turi.org/hazard.

Plating Company Converts to Trivalent Chromium

TURI awarded Independent Plating in Worcester, a \$15,000 grant to convert their nickel chromium (NiCr) plating line from using hexavalent chromium to trivalent chromium. They did a presentation on their progress at TURI's Continuing Education Conference and will hold demonstrations in May and September.

For more information, contact: Pam Eliason, TURI, pam@turi.org.

Small Business Conserves Energy & Water

Mr. John's Cleaners & Tailors in Everett, switched from using perchloroethylene to dedicated wet cleaning technology. The company also implemented extensive process and facility modifications to promote the long-term economic viability of their operation.

For more information, contact: Pam Eliason, TURI, pam@turi.org.



NEW HAMPSHIRE

New Hampshire Department of Environmental Services (NH DES)

Promoting Green Hospitality

NHPPP is continuing to work with the New Hampshire Sustainable Lodging & Restaurant Program (NHSLRP) to offer a "green" certification program to the hospitality industry. NHPPP staff is conducting site visits for applicants and promoting workshops and webinars to program members. The P2 staff assisted with NHSLRP's Fall Eco-Hospitality Conference by facilitating sessions and staffing a booth. Future projects involve working with a

local farmer and interested restaurants to create a composting program in the Concord area.

For more information, contact: Melissa Zych, NH DES, melissa.zych@des.nh.gov.

Stormwater Focus for Green Slopes

The Green Slopes program is a partnership between the NHPPP and SkiNH to assist ski areas with environmental issues. During the winter, NHPPP staff visited several ski resorts to observe stormwater management at parking lots. Many ski areas are located in close proximity to streams and rivers; therefore, management of snow removal and rainwater runoff is important. NHPPP is in the process of creating a stormwater management guide for ski areas, which will offer suggestions for P2 and possible ways to harvest runoff for reuse in snowmaking.

For more information, contact: Melissa Zych, NH DES, melissa.zych@des.nh.gov.

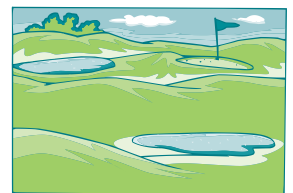
P2 Internship Program Successes

The P2 Internship Program sponsored by the University of New Hampshire (UNH) and NH DES continues to be successful. Since 1993, over 120 students have worked with 70 companies and have reported a combined cost savings of over \$5 million. The program helps to place students within organizations interested in working on P2, energy conservation, environmental management systems, lean manufacturing, and related projects. This year there are 12 students in the program.

For more information, contact: Melissa Zych, NH DES, melissa.zych@des.nh.gov; visit: <http://des.nh.gov/organization/commissioner/p2au/ppp/ppip/index.htm>.

Golf Course Project Launched

NHPPP is assisting golf courses in reducing their fertilizer, pesticide, and water use as part of a two year grant project. NHPPP will use surveys and site visits to gather baseline data to determine usage rates and will work with the Watershed Bureau to provide outreach and education on ways to reduce fertilizer use without compromising quality and provide information on Integrated Pest Management (IPM) to reduce the use of pesticides. NHPPP will also work with the Drinking Water/



Groundwater Bureau to offer ways to reduce water use.

For more information, contact: Melissa Zych, NH DES, melissa.zych@des.nh.gov.

Assistance for Concrete Facilities

Concrete and Redi-mix facilities are required to develop Stormwater Pollution Prevention Plans (SWPPP). In the past year two years, EPA has fined two New Hampshire facilities for stormwater compliance violations. NHPPP is assisting this sector with compliance with EPA's rules.

Staff conducts site visits and surveys to gather data, informs facilities of their compliance responsibilities, and provides information needed to develop SWPPPs and properly manage stormwater runoff.

For more information, contact: Melissa Zych, NH DES, melissa.zych@des.nh.gov.

Staff Update

The NHPPP is interviewing applicants to fill the Program Manager position, which has been vacant for nearly three years, and hopes to make a selection in the next few weeks.

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



inventories, and the Release and Pollution Prevention Report (RPPR) materials accounting data for 2009. The information gathered from RPPR data provides insight into annual chemical throughput and use, including environmental releases, waste management practices, and P2 accomplishments.

This Report provides information regarding the Community Right to Know (CRTK) survey and hazardous substances inventories, and the Release and Pollution Prevention Report (RPPR) materials accounting data for 2009. The information gathered from RPPR data provides insight into annual chemical throughput and use, including environmental releases, waste management practices, and P2 accomplishments.

The Report also contains a long-term analysis of materials accounting data for 2000 to 2009, with emphasis on the quantities of hazardous substances used, generated as non-product output (NPO), shipped as (or in) products, and consumed in production processes. In order to conduct these long-term analyses, four separate universes of facilities are examined:

- Core Universe – industry sectors that reported from 2000 to 2009
- Consistent Facilities Universe – facilities that reported every year from 2000 to 2009
- Core Minus Petroleum Universe
- Consistent Facilities Minus Petroleum Universe

Note: Because throughput quantities in the petroleum industry sector typically dominate the quantities of hazardous substances used, separate analyses are conducted to determine if they are potentially masking reductions achieved in other sectors. An overview of the findings is presented in Tables 1-3 on the following pages:



NEW JERSEY

New Jersey Department of Environmental Protection (NJDEP)

P2 Report Released

In March of 2012, NJ DEP released the report, "Community Right To Know and Release and Pollution Prevention Report For Reporting Year 2009 and An Analysis Of Materials Accounting Data For Reporting Years 2000 to 2009." This Report provides information regarding the Community Right to Know (CRTK) survey and hazardous substances

Table 1: Summary of 2009 Community Right to Know Inventory

Number of Facilities reporting Environmental Hazardous Substances (EHS)	7,910
Number of EHS Reports	30,776
Number of Facilities reporting EHSs at 10,000 pounds or more	4,464
Number of EHS Reports at 10,000 pounds or more	9,332
Number of Facilities reporting Emergency Planning & Community Right-to-Know Act (EPCRA) 302 Substances	2,161
Number of EPCRA 302 Substance Reports	3,634

Table 2: 2009 Release & Pollution Prevention Report, Materials Accounting Data (Pounds)

Number of Facilities: 424 | Number of Substance Reports: 1,575

Starting Inventory	852,504,272
Starting Inventory as Non-Product Output (NPO)	2,216,543
Produced Onsite	9,007,597,278
Brought Onsite	8,063,982,755
Brought Onsite as Recycled	6,205,280
Consumed	3,112,760,249
Shipped as (on in) Product	14,103,555,958
Ending Inventory	618,187,424
Ending Inventory as NPO	2,245,571
Non-product Output	139,144,325
Onsite Releases	10,349,849
Stack Air Emissions	3,620,735
Fugitive Air Emissions	718,851
Surface Water Discharge	5,839,609
Ground Water Discharge	13
Land Disposal On Site	170,641
Onsite Management	90,967,046
Recycled & Reused Onsite	23,472,979
Energy Recovered Onsite	2,593,759
Destroyed Onsite	64,900,308
End Inventory (as NPO) minus Start Inventory (as NPO)	29,028
Offsite Transfers	37,798,401
POTW Discharge	11,793,106
Waste Transfer - Recycling	10,985,989
Waste Transfer - Energy Recovery	10,341,167
Waste Transfer - Treatment	2,326,819
Waste Transfer - Disposal	2,351,012
Total Substance Use or Throughput	17,355,460,532

Table 3: Summary of Use, NPO, Shipped, Consumed from 2000 to 2009 – All Universes

Core Universe									
	Adjusted Use	Use	Adjusted NPO	NPO	Adjusted Shipped	Shipped	Adjusted Consumed	Consumed	Production Ratio
net change (pounds)	9,069,625,305	12,323,213,388	195,681,071	221,765,193	10,612,092,894	11,768,722,162	-250,818,569	332,726,033	
% change	31%	42%	54%	61%	41%	45%	-7%	10%	16%
	reduction	reduction	reduction	reduction	reduction	reduction	increase	reduction	decrease

Core Universe Minus Petroleum Products									
	Adjusted Use	Use	Adjusted NPO	NPO	Adjusted Shipped	Shipped	Adjusted Consumed	Consumed	Production Ratio
net change (pounds)	1,080,006,996	1,970,029,024	156,694,594	210,150,869	604,405,795	926,502,765	318,906,607	833,375,390	
% change	27%	49%	47%	63%	36%	55%	16%	41%	30%
	reduction	reduction	reduction	reduction	reduction	reduction	reduction	reduction	decrease

Consistent Facilities									
	Adjusted Use	Use	Adjusted NPO	NPO	Adjusted Shipped	Shipped	Adjusted Consumed	Consumed	Production Ratio
net change (pounds)	5,083,511,722	7,522,405,208	61,629,297	81,166,587	6,498,477,905	7,516,231,702	-507,154,389	-74,993,080	
% change	21%	31%	29%	38%	31%	36%	-18%	-3%	13%
	reduction	reduction	reduction	reduction	reduction	reduction	increase	increase	reduction

Consistent Facilities Minus Petroleum Products									
	Adjusted Use	Use	Adjusted NPO	NPO	Adjusted Shipped	Shipped	Adjusted Consumed	Consumed	Production Ratio
net change (pounds)	361,277,288	919,955,818	41,060,494	71,117,071	251,400,024	422,830,715	110,538,084	426,008,033	
% change	13%	33%	22%	37%	23%	38%	8%	29%	23%
	reduction	reduction	reduction	reduction	reduction	reduction	reduction	reduction	reduction

Note: Normalizing for variations in production is an important consideration when determining if reductions in the use of hazardous substances were the result of process efficiency methods or the result of changes in economic activity. Therefore, these universes are analyzed with and without adjusting for fluctuations in production.

For more information, contact: Andy Opperman or Bill Lowry, NJ DEP (609) 777-0518; visit www.nj.gov/dep/opppc/reports.html.



NEW YORK

New York State Department of Environmental Conservation (NYS DEC)

Procuring Green Products

NYS DEC continues to implement its green procurement program under Executive Order No. 4. The Procurement Subcommittee has met several times and will offer six specifications to the Interagency Committee for final approval. There are another 20 specifications under consideration for fiscal year 2012-2013. Selection and development of the specifications is an ongoing process that considers available expertise and purchasing needs.

For more information, contact: Bob Lazzara, NYS DEC, rjlazzar@gw.dec.state.ny.us; visit: www.ogs.state.ny.us/EO/4/Default.asp.

Recognizing Environmental Leaders

The New York Environmental Leaders (NYEL) Program provides recognition for organizations that demonstrate the use of P2 and sustainable practices. NYEL also provides organizations with incentives to sustain high levels of performance and motivates those that are committed to reaching even higher levels.

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The program has 13 members and the Department is currently reviewing 2 additional applications. The next open enrollment period for new applicants begins on September 1st.

For more information, contact: Ryan Waldron, NYS DEC, rpwaldro@gw.dec.state.ny.us; visit: www.dec.ny.gov/chemical/939.html.



Awarding Environmental Excellence

NYS DEC presented the eighth annual Environmental Excellence Awards to five recipients at the Healthy Economy & Environment (HE2) Conference.

The HE2 conference focused on the need for various sectors to collaborate and innovate to advance sustainability and build a viable economy. The 2011 award recipients included:

- University at Albany’s “You’ve Got the Power to Conserve” program and University of Rochester’s “Go Green! Conserve and Save” program, which engage campuses in energy efficient and environmentally responsible actions;
- Onondaga County Resource Recovery Agency’s Municipal Food Waste Composting project, which is generating jobs, reducing disposal costs, and producing a sustainable product;
- Uniland Development Company’s AVANT project, which is committed to transforming an old building into a model of innovation, sustainability, and adaptive reuse; and
- Dryden Central School District’s “Go Green” project, which demonstrates how a grass-roots effort can become one of the state’s most impressive school recycling and composting programs.

Applications are being accepted for the 2012 Environmental Excellence Awards; the submission deadline is May 18th. Eligible projects are those that have been in operation for at least one year and are demonstrating significant environmental benefits.

For more information, contact: Marna Posluszny, NYS DEC (518) 402-9469; visit: www.dec.ny.gov/public/945.html.

Developing Self Audit Policy

The Department is developing a policy that will provide incentives for the voluntary disclosure of violations discovered through facility self audits. The policy will contemplate incentives that can be provided to those facilities that implement comprehensive management systems and integrate P2. The goal is for the policy to provide greater incentive for facilities to consider the use of P2 as they correct violations. NYS DEC held a meeting in February to gather feedback on this policy. The next steps are to formally draft the policy and present it to stakeholders before finalizing it by the end of 2012.

For more information, contact: John Vana, NYS DEC, jmvana@gw.dec.state.ny.us.

NYS P2I and the U.S. Department of Commerce Economic Development Agency are funding the part of the project focused on creation and retention of jobs and economic growth. The targeted facilities comprise the entire supply chain, including agriculture, equipment manufacturing, food processing, packaging, and product distribution. P2 opportunities include water reuse, waste-to-energy, and package recycling.

New York State Pollution Prevention Institute (NYS P2I)

Advancing P2 in Food Processing

The NYS P2I is partnering with the Center for Integrated Manufacturing Studies at Rochester Institute of Technology on a \$1.9 million “Finger Lakes Food Processing Cluster Initiative” sponsored through the federal Jobs Accelerator Challenge program. NYS P2I and the U.S. Department of Commerce Economic Development Agency are funding the part of the project focused on creation and retention of jobs and economic growth. The targeted facilities comprise the entire supply chain, including agriculture, equipment

manufacturing, food processing, packaging, and product distribution. P2 opportunities include water reuse, waste-to-energy, and package recycling.

Food manufacturers utilize water for product cooling, which tends to be non-contact single-pass flow, neither making direct contact with the food products, nor re-circulated (closed-loop). This presents a significant opportunity for water use reduction by filtering cooling water and re-circulating it, and in some cases, reduction in energy usage through heat recovery. It may also be feasible to recover, recondition, and reuse wastewater by utilizing membrane filtration technologies, such as reverse osmosis (RO).



Some wastewater may also act as a beneficial stream. Food byproducts discharged into wastewater and contact cleaning water tends to be high in organic content. This presents the manufacturer with a water treatment burden, as well as wastewater surcharges. NYS P2I, in partnership with the Golisano Institute for Sustainability (GIS), is researching opportunities to make beneficial use of this organic content to produce energy through anaerobic digestion or fermentation.

Food processing operations also generate solid waste through packaging, raw material waste, and by-products from operational and quality issues. In many cases, the solid organic wastes can be supplementary feedstocks into waste-to-energy applications, along with the organic content in wastewater. Packaging waste, which can include corrugated cardboard or plastics, are usually recyclable. There are opportunities for greater plastic recovery through the use of plastic recovery equipment (i.e., shredding, cleaning, drying), and some manufacturers are experimenting with such technologies.

Supporting Manufacturing Leadership

NYS P2I has been awarded a source reduction assistance grant from EPA to work with manufacturers in the Tonawanda area. The \$130,000 grant will be used to assess opportunities for local manufacturers to reduce energy, environmental impacts, and associated costs. This effort

Continued on bottom of page 18

NEW PUBLICATIONS & EDUCATIONAL MATERIALS



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

Massachusetts Anthropogenic Mercury Emissions Inventory Update

The Report was prepared for MassDEP by the Northeast States for Coordinated Air Use Management (NESCAUM). It shows that mercury emissions have dropped by 91 percent across Massachusetts since the mid 1990s.

www.mass.gov/dep/toxics/stypes/08hginv.pdf

N-propyl bromide (nPB) Fact Sheet

TURI created a new fact sheet on N-propyl bromide (nPB), a relatively new solvent that is used in vapor degreasing, metal cleaning, and dry cleaning. Use of nPB is increasing as an alternative for other solvents that are more strictly regulated, such as methylene chloride, perchloroethylene (perc), and trichloroethylene (TCE). However, evidence has linked nPB to a range of human health hazards. In 2009, nPB was added to the list of MA TURA toxic substances.

www.turi.org/npb

Supporting Manufacturing Leadership

Continued from page 17

supports Tonawanda's Economy, Energy, and Environment (E3) initiative, which helps the community incorporate sustainability initiatives and green technology into industry practices.

For more information, visit:

www.rit.edu/affiliate/nysp2i/e3-economy-energy-and-environment.

Reducing Toxics in Paper Manufacturing

NYS P2I was awarded \$200,000 from the EPA's Great Lakes Restoration Initiative (GLRI) for a "Toxics Reduction and Sustainability in Paper Manufacturing" project to assist companies in the St. Lawrence watershed area. Phase 1 of this project involves conducting Lean, Energy,

and Environment (LE2) assessments at four paper manufacturing companies to identify opportunities to reduce toxic chemical releases, energy consumption, water usage, and operational costs. Phase 2 will involve technology transfer and will facilitate a broad impact to the Great Lakes ecosystem through dissemination of project case studies and best practices at paper manufacturers across New York, Illinois, and Minnesota.

For more information, visit:

www.rit.edu/affiliate/nysp2i/sites/rit.edu.affiliate.nysp2i/files/nysp2i-p2express-pulpandpaper.pdf.

Promoting Greener Choices for Homeowners

The "Green Homes for Cleaner Lakes" program, funded with a \$104,192 award from the GLRI, aims to increase awareness about the dangers of everyday household products on human health and the environment. Through two-hour workshops, homeowners learn how to make smart choices to protect their families while saving money and preventing contaminants from entering the Great Lakes. Workshops will be offered in Buffalo, Rochester, Syracuse, and Massena. Topics include: "How Green is Your Clean", "Hazardous Waste at Home", "Hidden Dangers of Personal Care Products", and "Safer Household Products".

For more information, visit:

www.rit.edu/affiliate/nysp2i/green-homes-cleaner-lakes-0.



"Green Homes for Cleaner Lakes"...
aims to increase awareness about the dangers of everyday household products on human health and the environment.
Through two-hour workshops, homeowners learn how to make smart choices to protect their families while saving money and preventing contaminants from entering the Great Lakes.



RHODE ISLAND

Rhode Island Department of Environmental Management (DEM)

ERP for Auto Body Sector

Rhode Island's auto body environmental results program (ERP) covers P2, air, hazardous waste, Occupational Safety and Health Administration (OSHA), and wastewater regulatory compliance issues. Rhode Island DEM's Office of Customer and Technical Assistance (OCTA) distributed certification materials to more than 300 licensed auto body facilities last fall. The self-certification forms received since then show a participation rate of 69 percent – the highest since the program began 10 years ago.

For more information, visit:

www.dem.ri.gov/programs/benviron/assist/abdycert/abdycert.htm

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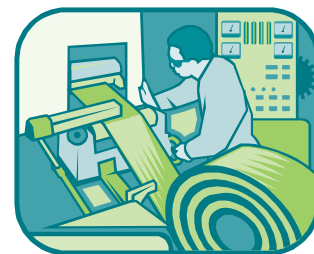
P2 Course Offered at URI

The University of Rhode Island (URI) is offering its annual course for students to learn the principles of P2 and understand environmental regulations and new initiatives. Topics include: P2 technologies, life cycle analysis, energy conservation and recoverable energy, ERP, and lean manufacturing. Students are assigned to group projects that pertain to industry issues, such as auto body coatings and pharmaceutical wastes, and participate in technical assistance field trips to companies.

Students Provide Technical Assistance

Undergraduate students at URI assist in various P2 activities under the technical assistance program, including:

- Evaluating process optimization for a large ultra-filtration system at a glass manufacturing facility. While the system is working, higher maintenance costs have occurred due to fouling of the membrane filter tubes. URI worked with an outside contractor to install pre-filtration screens and tanks to prevent solids from entering the membrane modules. The company recycles approximately 1,000 gallons of water per day, with savings in water purchase and disposal costs.
- Consulting with a large textile company to consolidate process jobs, reuse water, and repair leaky tanks and pipes to reduce their use of 2.4 million gallons of water per month. The company has reduced its water consumption by 60 percent to 1 million gallons per month and has realized significant savings in water purchase, sewer disposal, and energy costs – totaling approximately \$30,000 per month.
- Assisting a manufacturer of energy-related components with implementing process modifications to reduce the biochemical oxygen demand (BOD) in their wastewater discharge from 50,000 mg/l to 20,000 mg/l (a more than 50 percent reduction). URI continues to work with the company to evaluate separation technologies, such as membranes and distillation to reduce the BOD even further.
- Assisting a small textile company to reduce copper levels in their wastewater due to the use of a copper-containing dye used for turquoise color. Since implementing an improved maintenance program that includes better cleaning of the tanks and piping, the company has not reported elevated copper readings.



Pollution Prevention News!

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

For more information, visit:

www.newmoa.org/prevention/p2news/



- Strategizing ways for an anodizing company to reduce their levels of suspended solids in wastewater. URI staff is researching environmentally-friendly processes that could be applied. In the meantime, some basic settling and filtration tests are planned at the site.

Narragansett Bay Commission (NBC)

Sustainable Energy for WWTFs

Since 2008, the NBC, RI DEM, URI, EPA Region 1, Rhode Island Manufacturers Extension Service (RIMES), and National Grid have been working together to help 19 wastewater treatment facilities (WWTFs) identify and implement energy efficiency measures through the use of Sustainable WWTF Energy Focused Environmental Management Systems (EF-EMS). The EF-EMS for this effort is based on the ISO 14001 Environmental Management System “Plan-Do-Check-Act” approach and consists of practices, procedures, policies, and technologies that will continuously support and sustain WWTF operations into the future.

In May 2011, NBC received an additional \$86,000 American Recovery and Reinvestment Act (ARRA) grant award through the Rhode Island Office of Energy Resources (RIOER) to perform Energy Efficiency Technical Assessments (EETA) of Rhode Island WWTFs. A typical EETA can cost \$5,000 – \$15,000. National Grid pays for half the cost of each assessment. Sixteen individual EETAs have since been completed. Follow-up visits of each WWTF will be conducted throughout the spring and summer to assess the overall impact of this project.

For more information, contact: James McCaughey, NBC (401) 461-884 x352.

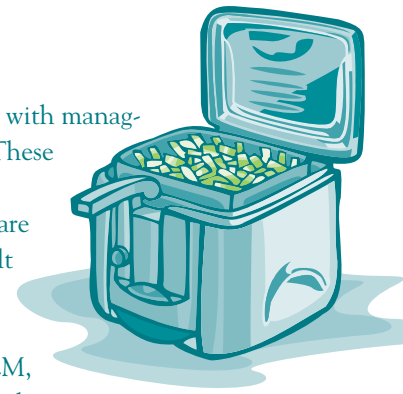
Wind Turbines Installed

During the past winter, NBC completed the construction and installation of its 4.5 MW Tri-Turbine Wind Farm at the Field’s Point WWTF in Providence. These three 365-foot high wind turbines, each with a capacity of 1.5 MWs, are scheduled to go online and begin generating clean renewable energy in the summer. Once operational, they will be able to supply 30 to 40 percent of the facility’s electrical power.

For more information, contact: James McCaughey, NBC (401) 461-884 x352.

ERP for Fats, Oils, & Grease

Most municipal WWTFs struggle with managing fats, oils, and grease (FOG). These by-products from the food service industry and household kitchens are problematic to collect and difficult to treat. In an effort to address these problems, the NBC in cooperation with the URI, RI DEM, and EPA Region 1 have established an ERP to help the local food service industry keep FOG out of the sewer. The program includes a combination of compliance assistance, voluntary self-evaluation, regulatory inspections, and certification.



There is also the potential for biodiesel production from this effort. It is well demonstrated that “yellow” grease from fryers can be converted into biodiesel to use in diesel engines and as a renewable home heating fuel. As part of this project, participating restaurants are encouraged to send their waste yellow grease to local biodiesel production facilities.

NBC recently completed a FOG Best Management Practices (BMPs) Workbook and will initiate outreach activities to assist and educate the local food service industry on implementing these BMPs in April.

For more information, contact: James McCaughey, NBC (401) 461-884 x352.



VERMONT

Vermont Department of Environmental Conservation (VT DEC)

Awarding Environmental Excellence

The 19th annual Governor’s Awards for Environmental Excellence ceremony will be held on May 15th. VT DEC received 32 applications and announced the winners in early April.

Promoting Business Partnerships

The Vermont Business Environmental Partnership (VBEP), a joint venture of VT DEC and the VT SBDC, hopes to surpass 200 member businesses this spring. The general business sector and the hotel sector have the largest number of participants. Significant growth is expected in the coming year in the following sectors: golf courses, restaurants, and grocers.



Assisting Farms with Compliance

VT DEC's Small Business Compliance Assistance Program (SBCAP) assisted the Agency of Agriculture, Food &

Markets with outreach to farmers on Spill Prevention, Control, and Countermeasures (SPCC) Plans. As part of this effort, the SBCAP trained agriculture staff on EPA rule requirements, provided on-site assistance to farmers in developing plans, created a SPCC plan template and sample plan for use by farms, and conducted workshops around the state for farmers. This initiative provided information on farm compliance, along with funding available from the Agency of Agriculture for containment structures.

Mercury Reduction Programs

VT DEC is in the process of implementing a new producer responsibility law for end-of-life mercury containing lamps. Manufacturer collection plans were due on February 1st. The Agency received one collection plan from the National Electrical Manufacturers' Association on behalf of multiple lamp manufacturers, for implementation of a statewide no-cost collection and recycling program at municipal and retail locations. The collection program will be available to residents, small businesses, and institutions that generate small quantities of lamps.

Staff Update

After nearly 16 years implementing VT DEC's multi-media SBCAP, Judy Mirro is retiring from state service. Her strong commitment to customer service provided her with a loyal following in the business community over the years. Judy's contribution to small business compliance has been tremendous, and she will be missed.

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



EPA REGION 1 – NEW ENGLAND

Soak up the Rain Campaign

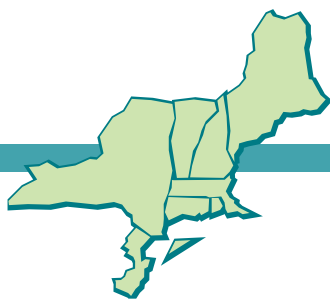
US EPA Region 1 has launched a "Soak Up the Rain" Campaign designed to encourage citizens, municipalities, and businesses to soak up stormwater by planting rain gardens, using rain barrels and dry wells, planting trees, disconnecting their downspouts, and installing green roofs and pervious pavement. These actions can help prevent pollution of local waters, reduce flooding, protect water resources, and beautify neighborhoods.

For more information, contact: Cindy Brown, EPA Region 1 (617) 918-1743, brown.cindyl@epa.gov; visit www.epa.gov/reigon1/soakuptherain.

Sustainable Materials Management

EPA's Sustainable Material Management program has a new web page www.epa.gov/wastes/consERVE/smm/index.htm that describes three Agency initiatives: Food Recovery, Electronics, and Greening Federal Agencies. US EPA Region 1 is actively encouraging supermarkets, colleges and universities, venues, health care facilities, and hospitality firms to join the Food Recovery Challenge. The Federal Green Challenge (www.epa.gov/federalgreenchallenge) is a voluntary initiative that has registered more than 20 New England federal facilities, as well as every US Postal Service facility. These voluntary programs allow federal participants to set goals to reduce their environmental footprint and lead by example.

For more information, contact: Jeri Weiss, EPA Region 1 (617) 918-1568, weiss.jeri@epa.gov.



NORTHEAST ASSISTANCE & P2 ROUNDTABLE

National Sustainable Lodging Network

The National Sustainable Lodging Network has grown to more than 395 members since its public launch last September. This online network and information clearinghouse supports the work of sustainable hospitality practitioners by:

- Providing forums for sustainable hospitality practitioners and lodging facilities to share information on practices and challenges,
- Elevating sustainable hospitality programs and the facilities that participate in them,
- Increasing the adoption of sustainable practices in the sector, and
- Fostering innovation in sustainable lodging through the exchange of ideas.

By joining the site, participating in the virtual conversation, and sharing resources, information, and ideas, members can advance their efforts and develop their knowledge.

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

POLLUTION PREVENTION

P2R

RESOURCE EXCHANGE

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

For more information, visit:

www.newmoa.org/prevention or www.P2Rx.org.

Updates to the National P2 Results Data System

As the P2Rx Center for Regions 1 & 2, NEWMOA provides technical support for the National P2 Results Data System. NEWMOA staff completed a number of improvements to the System, including centralization of the national database and updates for several cost coefficients to reflect regional variability instead of national averages. NEWMOA also completed upgrades to the System’s reporting capabilities for states and regions.

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

Updates to P2 Data Collection Tools

NEWMOA’s online repository of P2 Data Collection Tools enables P2 and environmental assistance programs to share their data collection tools (e.g., checklists, surveys, and questionnaires) so that they can learn from each other. Users can search other program’s P2 data collection tools based on the relevant sector or topic, type of P2 activity, or type of tool used. They can also add their own data collection tools to the system. NEWMOA staff recently updated the search capabilities for this site so that users can now search for multiple data collection tools at once.

For more information, contact: Rachel Smith, NEWMOA (617) 367-8558 x304, rsmith@newmoa.org; visit: www.newmoa.org/prevention/projects/datacol/index.cfm.

“Curbing Food Waste” Group

The new “Curbing Food Waste” Group within the National Sustainable Lodging Network is dedicated to food waste reduction, recovery, diversion, and overall sustainable food waste management. It is meant to connect federal, state, and local hospitality programs with restaurants and lodging operations in order to help these facilities implement practices to reduce food waste.



For more information, visit:

www.sustainablelodging.org/group/curbing-food-waste.

National Pollution Prevention Roundtable (NPPR)

The National Pollution Prevention Roundtable (NPPR) has launched the 2025 Safer Chemistry Challenge Program (SCCP), a voluntary initiative to motivate, challenge, and assist companies to reduce the use of toxic chemicals through P2. Participating companies reduce their use of chemicals by:

- Moving toward cleaner processes, including adopting greener, more sustainable technologies;
- Using green chemistry tools and designs that avoid the use and generation of toxic chemicals; and
- Selecting and using safe alternatives, such as benign or low toxicity materials or those that degrade into innocuous substances.

The SCCP offers businesses a unique leadership opportunity that fosters a cleaner environment, new market opportunities, and improved competitive advantage, while enhancing corporate image. The SCCP also rewards companies for finding safer alternatives and builds on ongoing efforts to make toxic chemical reduction a business reality.

For more information, visit: www.p2.org/challenge.

NORTHEAST ASSISTANCE & P2 CALENDAR			
TITLE	SPONSOR	DATE / LOCATION	CONTACT
3rd Annual MA Sustainable Economy Conference	ISES	April 30; Boston, MA	www.sustainableeconomyconference.com/
CleanMed 2012	Practice Greenhealth	April 30-May 2; Denver, CO	www.cleanmed.org
8th National Mercury Monitoring Conference	NWQMC	April 30-May 4; Portland, OR	www.acwi.gov/monitoring/conference/2012/
Sustainable Property Transactions	RTM Communications	May 1-3; Cambridge, MA	www.rtmcomm.com
GreenScreen Training	Clean Production Action	May 8; Ann Arbor, MI	www.cleanproduction.org/Greenscreen.php
GC3 Innovators Roundtable	NSF International	May 9-11; Ann Arbor, MI	www.greenchemistryandcommerce.org
23rd Annual Nonpoint Source Pollution Conference	NEIWPCC & NH DES	May 15-16; Portsmouth, NH	www.neiwpcc.org/npsconference/
Western Sustainability & P2 Conference	WSPPN & CalRecycle	May 15-17; Sacramento, CA	www.wsppn.org
16th Annual Green Chemistry & Engineering Conference	ACS Green Chemistry Institute	June 18-20; Washington, DC	http://acswebcontent.acs.org/gcande/
Leading Environmental Frontiers	AWMA	June 19-22; San Antonio, TX	http://ace2012.awma.org/
Stormwater Symposium	Water Environment Federation	July 18-20; Baltimore, MD	www.wef.org/stormwater2012/
Behavior Change for a Sustainable World	Assoc. for Behavior Analysis International	August 3-5; Columbus, OH	www.abainternational.org/Events/susconf2012/index.asp
WasteCON 2012	SWANA	August 14-16; Washington, DC	www.wastecon.org
Resource Recycling Conference	PSI	August 28-29; Austin, TX	www.resource-recycling.com/rr_conference/index.html
27th Annual NAHMMA National Conference	NAHMMA	September 17-21; Universal City, CA	www.nahmma.org
International Conference on Soils, Sediments, Water, & Energy	UMass	October 15-18; Amherst, MA	http://umassoils.com/papers.htm

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



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