

# **Pollution Prevention News**

### **FEATURE ARTICLE** Greening the Hospitality Industry

Managing a hotel or related lodging establishment is an art and a science. It requires an ability to balance cost, convenience, and customer satisfaction, and the most minor decisions often require precise planning to ensure the desired outcome. Experience has shown that economics and common sense often drive innkeepers to adopt pollution prevention and resource conservation strategies in



order to improve both their economic and environmental performance. Take, as examples of pollution prevention, the use of soap dispensers, towels and linens upon request, hand dryers (versus paper), occupancy sensors, or automatic delivery of newspapers to rooms. Each has a potential environmental benefit, but in the lodging industry the impacts upon the guests, staff, and the facility's reputation and

coverage in the media are the central concern. Arguing cost savings with lodging managers also involves an understanding of customer service.

A national nonprofit organization called Green Seal has developed an initiative, starting in 1995 to establish standards and a national certification program for the lodging industry. They began a pilot program in Pennsylvania and are working with hotels there to achieve certification. Other states with Green Seal certified hotels include Arizona, Utah, and Wyoming, and Washington, DC. The Green Seal

standards are based on major categories for environmental requirements, waste

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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 help states articulate, promote, and implement economically sound regional programs for the enhancement of environmental protection. The group fulfills this mission by providing a variety of support services that facilitate communications and cooperation among member states and between states and EPA.

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

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

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### NORTHEAST STATES Pollution Prevention News

Northeast States Pollution Prevention News is published a few times per year by NEWMOA's P2 Program, called the Northeast States Pollution Prevention Roundtable (NE 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.

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#### **Greening the Hospitality Industry**

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minimization, water and energy efficiency, hazardous substances handling, and environmentally preferable purchasing. Under each heading there are specific standards that a property must be in compliance with to pass an inspection to become Green Seal Certified.

State Pollution Prevention Programs around the country, including those in the Northeast, North Carolina, Virginia, Pennsylvania, and California have all conducted outreach and assistance with the hospitality sector. In addition to outreach and assistance, the states of Florida and Vermont have developed standards and certificate programs for green lodging properties. The following sections describe some of the initiatives underway in the Northeast states to promote and advance environmentally and economically sustainable activities at lodging establishments in the region.

#### MAINE

Called "Vacationland," Maine is a destination for many travelers. A report published by the Maine State Planning Office identifies tourism as the largest industry in Maine. According to the Maine Office of Tourism, there are over 1200 lodging properties in the state. In 1998 out-of-state overnight visitors spent \$1.8 billion, and an estimated 8.6 million overnight trips were taken in Maine, which is an increase of 4 percent from 1997. In 2000, overnight visitors in Maine spent \$2.2 billion, and accommodations accounted for 13 percent of the total spending.

The number of tourists visiting Maine has grown over the past few years and with each additional overnight stay the potential environmental impact of tourism increases. With more and more visitors in Maine, it would be beneficial to work with the hospitality sector to reduce the environmental impact of its operations. Maine would be better prepared to handle increased growth in the future and avoid the negative impacts of more visitors.

Currently, Maine DEP is considering implementing a lodging certification program. The steps that are being considered for implementation of the program are:

• Research the hospitality sector and determine best

management practices for waste minimization, water and energy efficiency, cleaners and other chemicals, and environmentally preferable purchasing.

- Develop standards for a two tiered green certification based on best management practices.
- Contact lodging properties through trade organizations, such as the Maine Innkeepers Association, and partner with other government agencies, such as the Maine Office of Tourism, and the State Planning Office.
- Seek governor sponsorship of the program.
- Determine two or three industry leaders with environmental programs already in place willing to be models and mentors for others in the program. The Colony Hotel in Kennebunkport has already won numerous environmental awards.
- Conduct environmental assessments of lodging properties, including energy audits and waste stream analysis.
- Work with properties on project implementation.
- Conduct a certification evaluation for lodging properties that have completed eight environmental projects.

**For more information visit** http://www.state.me.us/dep/ oia/p2/hotels.htm which lists a number of national and international online resources to assist hotels that are looking to improve their environmental performance.

#### **NEW HAMPSHIRE**

As part of their daily operations, New Hampshire's top Hotels will soon clean more than their facilities—they will also help clean up the environment. Developed in collaboration with Public Service of New Hampshire (PSNH) and the New Hampshire Department of Environmental Services (NH DES), the New Hampshire Lodging and Restaurant Association's (NHLRA) Sustainable Lodging Program (SLP) will teach Granite State lodging properties how to save energy, conserve water, and reduce waste at their facilities. The NHLRA has been particularly helpful because it represents and understands the lodging industry better than any other organization in New Hampshire.

The SLP brings experts on-site to lodging establishments for multi-media audits of waste generation, water and energy use, and recommends improvements that take into account the conditions at the site. The water audits focus on room faucets and water fixtures (for compliance with federal guidelines), as well as landscaping irrigation practices or equipment. Waste audit reviews tend to focus on reducing waste generation and extracting recyclable and reusable materials from the waste streams, looking at possible markets for materials, and handling storage/transportation logistics.

With more and more visitors in Maine, it would be beneficial to work with the hospitality sector to reduce the environmental impact of its operations.

New Hampshire lodging establishments are paying an average of \$1,925 per room per year for energy services, the highest rates in the nation, making energy efficiency an easy "sell." The timing of Sustainable Lodging coincides with the state's energy producers providing rebates to business energy users for more efficient lighting, heating/ cooling improvements, and other related energy efficiency improvements (visit www.nhsaves.com). A useful best management practice that is growing is the use of occupancy sensors to shut down room heating and air conditioning. The Inn at Mill Falls in Meredith, New Hampshire, for example, recently invested in technology that uses an optical sensor to determine if the room is unoccupied, and will shut down TVs, lights, and heating/cooling systems. They can also centralize the control of energy use in occupied and unoccupied rooms to maximize efficiency. The Inn realized a return on investment in three years and won an award from the NH Travel Council's 2002 Sustainable Business of the Year; the award that grew out of the work done by the participants in the SLP.

Approximately 45 lodging businesses have expressed interest in the SLP, with 15 new businesses participating since the partnership began with PSNH and NHLRA in June. Before the end of 2003 SLP will develop a logo, hold another workshop, distribute energy guidebooks to

#### CASE STUDY:

Inn & Spa in Connecticut

Picture yourself at the Saybrook Point Inn, Marina & Spa — walking along the beautiful Connecticut shoreline while taking in a breath of salty sea air, watching the colorful boats docked nearby and listening to the cries of the seagulls overhead. Or maybe you are more of the indoor type, taking in views of the Connecticut River from your elegant room or pampering yourself in the spa with a massage or facial. Either way, you probably did not know that while you were shaping up or shipping out, the folks at Saybrook Point Inn were busy thinking up new ways to protect the environment and keep their guests happy.

The Inn, an 80-room facility in Saybrook, is a four-time winner of the Connecticut Department of Environmental Protection's (DEP's) GreenCircle Awards. The Inn's first award in 1998 was for enhancing and preserving the Saybrook Point waterfront by creating walkways along the water (open to the public) that stabilize and preserve the water's edge and shore areas. The following year, in 1999, the Inn won for purchasing water-efficient toilets for guest rooms and public areas and installing a water efficient dishwasher. These changes reduced their water usage by 15 percent. In 2001, the Inn integrated new equipment that treats water going through their cooling tower. The system uses less water and eliminates disease-causing bacteria and algae growth without the need for chemicals. Saybrook Point Inn also installed 90 energy saving programmable thermostats. The Inn won again in 2002 for installing water recycling laundry equipment with ozone to reduce hot water, soap, bleach, and propane usage. Besides the environmental benefits, the finished laundry is now softer and has a more pleasant fragrance.

Why do they do it? Innkeeper Stephen Tagliatela says: "It's the right thing to do for the environment and the right thing to do for business. Being "green" can be profitable. Most people do not think that. It is even patriotic. Why waste energy?" Tagliatela also said it was important to maintain a high level of service for their guests. He says in many cases, the guests' experiences have been enhanced because of their pollution prevention efforts. For example, more efficient T-8 florescent bulbs were installed with the bonus of providing more natural light. Now guests can enjoy being "green" without looking green. the 450 NHLRA members, and develop an environmental curriculum for future lodging and restaurant managers.

For more information contact: Pierce Rigrod, NH DES, prigrod@des.state.nh.us, http://www.des.state.nh.us/swtas/greenlodging.

#### VERMONT

Tourism is currently the world's largest industry and, if current trends continue, travel and tourism will soon be the largest industry in Vermont. Lodging is an important segment of this growing industry, providing tremendous diversity and stability to the state's economy. This sector of the economy, more than most, however, is highly dependent upon a clean and scenic environment. This is the magnet attracting many visitors to Vermont — and keeps them coming back. The lodging industry in Vermont, with nearly 20,000 guest rooms, strives to be one of the greenest.

The Vermont Business Environmental Partnership is a voluntary, environmental assistance and business recognition program offered by the Vermont Agency of Natural Resources (ANR) and the Vermont Small Business Development Center (SBDC). The Partnership joins efforts of the public and private sectors to achieve environmental and economic goals simultaneously.

The Vermont Business Environmental Partnership recognizes Vermont innkeepers as Environmental Partners when they achieve a set of core environmental standards and six elective standards. Once Environmental Partner status is attained, those wishing even greater recognition can satisfy additional, more rigorous standards to have their properties designated as a "Green Hotel in the Green Mountain State." Although each property achieves program standards uniquely, each conducts an environmental opportunity assessment, adopts environmentally preferable practices, and develops an environmental management plan that guides its efforts to continually reduce the environmental consequences of its operations. The journey toward designation as a Green Hotel in the Green Mountain State typically begins years before a phone call is received at either ANR or the SBDC.

Upon initial contact with a facility the Partnership staff schedule an environmental opportunity assessment. The assessment serves to highlight best management practices already evidenced and, more importantly, to suggest additional strategies and practices in areas such as:

- environmentally preferable purchasing
- waste prevention and reuse
- recycling and composting
- resource conservation (i.e., energy and water)

By taking credit for prior environmental initiatives and by adopting new strategies suggested in the assessment, a property gets recognized as an Environmental Partner. Leveraging its past success into the future, by developing a comprehensive environmental management plan and agreeing to host an educational event, allows a property to be designated as a Green Hotel in the Green Mountain State. Innkeepers are recognized by the Governor at a State House ceremony, their property gets listed on a promotional card distributed at each of the gateway rest areas in Vermont, and the Partnership maintains a website designed to laude the property's successes and to promote their patronage. Program participants complete performance reports annually.

#### Green Hotels in Vermont in aggregate have:

- computerized energy management systems
- adopted linen and towel reuse programs
- installed energy and water conservation devices and fixtures
- reduced packaging waste by using bulk purchasing
- switched to non-toxic cleaning supplies
- composted organic waste
- converted to renewable energy sources
- educated guests as to how they can contribute to environmental initiatives
- substituted bulk amenity dispensers for single-use plastic amenity bottles
- eliminated the use of chlorine bleach by finding alternative disinfectants
- engineered systems to recapture waste heat

Today, there are more than fifty Program Partners, of whom more than thirty have had their properties

designated as Green Hotels in the Green Mountain State. The following is excerpted from the Strategic Environmental Management Plan of the Blueberry Hill Inn, in Goshen, Vermont. The sentiments expressed epitomize the heartfelt passion many proprietors in the Program bring to their businesses:

"...we are committed to environmental improvements within both our business and our lives. We strive to create an environment that makes it possible for all to participate - staff and guests alike. We will continue to scrutinize every area of our operations to find ways to minimize our impact on the earth. We will seek to find ways to educate others, and remind ourselves that every little bit helps, no matter how small the offering. We will strive to continually make a difference – while simultaneously maintaining our commitment to provide our guests the quality service they expect and deserve."

For more information visit: http://www.vtgreenhotels.org.

#### **EPA REGION I-NEW ENGLAND**

EPA manages programs that provide support in the areas of energy efficiency, environmentally preferable purchasing, solid waste reduction, water conservation, and indoor air quality that are targeted toward the hospitality sector and others.

EPA's Green Meetings Initiative, in cooperation with the Oceans Blue Foundation (OBF), developed a web site for meeting planners and service providers (e.g., the hospitality sector) that provides guidance and resources for reducing the environmental impact associated with lodging accommodations, conferences, and meetings. The web site—www.bluegreenmeetings.org— includes checklists, sample contract language, environmental policies, case studies, and links to additional resources.

If hotels improved their energy performance by an average of 30 percent, the annual electricity bill savings would be nearly \$1.5 billion. This represents a savings of approximately \$365 per available room night per year for every hotel room in the country. Energy Star is a voluntary program sponsored in part by EPA that offers tools to select energy efficient products and resources to measure, track, and benchmark energy performance. A

### TIPS FOR TRAVELING GREEN

Last year alone there were over 715 million international arrivals worldwide according to the World Tourism Organization. And each arrival leaves its footprint behind. While on vacation and travel with your friends and family, it is even more essential to be conscious of your impact on the environment. Here are some green traveling tips to help you have a fun and eco-friendly vacation.

#### Planning you trip:

- Look for hotel accommodations and tours that carry environmental friendly certifications or memberships in green industry associations—such as Green Seal, Green Leaf, or state programs (see Feature Article starting on page 1)
- Select places close to public transportation or near your prime attraction interests in order to alleviate the need for a car
- When flying, book electronic tickets; it reduces paper waste and you are less likely to lose your ticket

#### Before you go:

- Pull the plug on any unnecessary appliances such as TVs, VCRs, stereos, toasters, and microwaves; these items can still use energy in their off mode
- Set your thermostat and water heater at low settings so that energy is not wasted while you are gone
- Stop your newspaper or donate the paper to a school while you are gone

#### When you are there:

- If the hotel has an environmental program, participate as much as possible; ask about it when you check in
- Never leave lights on when you are not in the room
- Lower the thermostat when you leave the room for long periods of time

- Close the drapes or blinds; this will keep the room cooler
- Leave unopened shampoo, soap, and other items in the hotel unless you are taking it home to use
- Avoid room service and carry-out which increase waste
- Use water sparingly; in some places this is a scarce resource
- Never buy items made from endangered species
- Walk or use public transportation
- Grab only the brochures that you will actually use; share brochures whenever possible
- Take pictures and leave the location as you found it; never remove wildlife from its natural environment, including shells, flowers, and coral
- When hiking and camping, stay only on marked areas to avoid destroying vegetation
- Buy locally-produced produce in order to reduce the pollution required to import goods

#### When you come home:

• Write a letter or e-mail to your hotel or tour guide telling them that you appreciate their efforts to minimize the impact on the environment; this will encourage them to promote and institute more environmentally friendly activities

Source: Green Notes, US EPA.

web page developed for the hospitality sector can be viewed at www.energystar.gov/index.cfm?c=hospitality.bus\_hospitality.

EPA offers two major resources to assist hotels with the procurement of environmentally preferable products and services. EPA's Buy Recycled Program established Comprehensive Purchasing Guidelines (CPG) that identified 54 categories of recycled content products selected based on their availability, technical performance, and economic feasibility. The CPG, in conjunction with EPA's recommended recycled content levels, takes much of the guesswork out of selecting recycled

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content products, such as bathroom tissue and paper towels. Similarly, the Environmentally Preferable Purchasing Program provides guidance for selecting a wide range of "green" products and services, including cleaning supplies, carpets, electronics, paint, and furniture. Visit the CPG and EPP web pages, respectively at: www.epa.gov/cpg/index.htm, and www.epa.gov/oppt/epp/.

WasteWise is a free, voluntary program through which organizations eliminate costly municipal solid waste, benefiting their bottom line and the environment. WasteWise provides technical assistance to help develop, implement, and measure waste reduction activities. Visit the WasteWise website at: www.epa.gov/wastewise/.

EPA's Water Alliances for Voluntary Efficiency (WAVE) program is a non-regulatory water-efficiency partnership developed to encourage businesses to reduce water consumption. This program has targeted hotels as a preferred sector. For an overview of the program, visit www.epa.gov/owm/water-efficiency/faq.pdf.

Hotels can suffer from poor indoor air quality (IAQ) due to mold, secondhand smoke, and inadequate ventilation. To learn more about IAQ guidance and resource for large buildings, visit www.epa.gov/iaq/largebldgs/index.html.

# FEATURE ARTICLE PBDEs— a Class of BFRs under Fire

by Elizabeth Harriman, Deputy Director, MA Toxics Use Reduction Institute

#### Flame Retardants

Polybrominated biphenyl ethers (PBDEs) are a class of brominated flame retardants (BFRs) used in many different combustible materials to ensure fire safety. Flame-retardants are used to slow the spread of an accidental fire and reduce the amount of heat and smoke released. One of the key properties of flame-retardants is to be self-extinguishing once the source of ignition has been removed.

There are three primary classes of flame-retardants:

- a) halogenated compounds
- b) inorganic compounds (including antimony)
- c) phosphorus compounds

Chemically acting flame-retardants (such as the halogenated bromine and chlorine systems) are very effective. Common brominated flame retardants include PBDEs, hexabromocyclododecane (HBCD), and tetrabromobisphenol A (TBBPA). Some BFRs are used as "reactive" and some are "additive." A reactive flame retardant, for example, TBBPA, is reacted into the polymer matrix and is considered to be less apt to migrate out. An additive flame retardant is compounded into the polymer.

Physically-acting inorganic flame-retardants based on metal hydroxides and salts have a weaker effect (e.g., alumina trihydrate, magnesium hydroxide, boroncontaining compounds). The performance of primary flame-retardants such as chlorine, bromine, and phosphorous is enhanced by additives such as antimony, zinc, and other metal salts. Antimony oxide is typically used in flexible PVC products. The range of phosphorouscontaining flame-retardants is very wide and includes Late Breaking News: EPA announced on November 3, 2003 that Great Lakes Chemical has agreed to phase out penta and octa-BDE by the end of 2004

phosphates, phosphate esters, and elemental red phosphorus. Often the phosphorus compounds also contain halogens, which increase the effectiveness of the flame-retardant.

#### Polybrominated Biphenyl Ethers (PBDEs)

PBDE's are a class of chemical compounds in which up to 10 bromine atoms are attached to a diphenyl ether molecule. There are 209 different possible compounds, called "congeners," depending on the number and position of the bromine atoms. These congeners are grouped according to the number of bromines, for example, the penta-BDE shown here has five bromine atoms.

There are three different commercially available PBDEs: penta-, octa-, and deca-BDE. Each is a mixture of different congeners, for example the penta product is a mixture of 40 percent tetra-BDE, 45 percent penta-BDE, and 6 percent hexa-BDE. The octa product has a wide variation from hexa to nona, and the deca product, which is the most widely used PBDE product, is approximately 97 percent deca.

#### Uses of PBDEs

PBDEs are used in a wide variety of products. Penta-BDE is used primarily in polyurethane foams, for end uses such

as upholstered furniture and automobile seat cushions. Deca-BDE, and to a lesser extent octa, are used in plastics, rubbers and textiles, for end uses such as electronics enclosures and coated wire and cable. World demand for the principal commercial BFRs is shown below.

In Massachusetts, approximately 2.4 million pounds of deca-BDE was reported as used by 16 companies for the year 2000. Approximately 600,000 pounds was used in textile coatings, 400,000 pounds in wire and cable coatings, and the remainder in various plastics and rubbers. Of the 2.4 million pounds used, 2.3 million pounds were shipped as product, only 371 pounds were reported as released to the environment, and only 96,000 pounds were reported as byproduct. Deca-BDE is the only PBDE compound that is reportable under TURA.

#### Environmental Health & Safety Issues

The discovery of toxicological and eco-toxicological characteristics of PBDEs has been accompanied by studies demonstrating their growing accumulation in the environment – in sediments, water, indoor air, biota, and humans.

The human health effects of PBDEs have not been studied thoroughly. Most research shows deca to be less bioavailable than the lower BDE congeners. The most data exists for penta, where evidence points to adverse effects on the liver and thyroid as well as neuro-developmental effects. In general, PBDEs are not considered carcinogenic, although limited animal testing shows deca to be carcinogenic in male mice at extremely high doses.

Clobal Harket Demand for Dr N3 in 2001 (metre tons)						
	America	Europe	Asia	Rest of World	Total	
TBBPA	18,000	11,600	89,400	600	119,700	
HBCD	2,800	9,500	3,900	500	16,700	
Deca-BDE	24,500	7,600	23,000	1,050	56,100	
Octa-BDE	I,500	610	1,500	180	3,790	
Penta-BDE	7,100	150	150	100	7,500	

Global Market Demand for BFRs in 2001 (metric tons)

Source: Bromine Science and Environment Forum, 2003

# PBDEs Are Accumulating in Our Environment

Levels of PBDEs (polybrominated biphenyl ethers) in lake trout from Lake Ontario have increased 300 fold over the last two decades. Other studies have found a 65-fold increase in PBDEs in the blubber of California seals in a decade, a 60-fold increase in herring gull eggs in the Great Lakes in two decades, and a 75-fold increase in Canadian beluga whales over 15 years. Similar exponential increases have been found in human adipose tissue and breast milk. Levels of PBDEs in US women's breast milk are orders of magnitude greater than those in Sweden, where penta-BDE was phased-out in the mid-1990's. PBDEs are everywhere in our environment - in sediments, sewage sludge, and in household dust.

Numerous studies have documented increasing levels of total PBDEs in humans, animals, and the environment. Where individual congeners have been measured tetra and penta forms dominate; they are persisting in the environment, and bioaccumulating up the food chain. Although deca has been shown to be persistent, it is not found in the environment in quantities proportional to its much higher use. One possibility, supported by limited studies on photolysis and degradation in fish, is that deca de-brominates under some conditions to penta and tetra. Other possible explanations are that researchers have not been testing adequately for deca or that deca degrades into other substances. Clearly, there is a lack of understanding of the fate and transport of PBDEs.

#### US & International Materials Restrictions on PBDEs

The European Union has already acted to restrict the manufacture and sale of certain PBDEs. In response to recently completed risk assessments, the EU has approved a phase-out of penta and octa-BDE in all products as of August 2004. Because many countries in Europe began phasing-out penta in the 1990s, there is very little use at present. In addition, as part of the EU's Waste Electronic and Electrical Equipment Directive (WEEE) and its companion Restriction on the Use of Certain Hazardous Substances Directive (RoHS), all PBDEs will be phased-out in those products as of 2006. While the EU risk

assessments for penta and octa have been finalized and have recommended phase-out, there are still unresolved questions with the deca risk assessment. The RoHS Directive defaults to phasing-out deca, but states that it is a priority to review deca based on the final risk assessment conclusions.

The only phase-out legislation in the US is the California Assembly Bill 302 that was passed in August of 2003 and will take effect in January of 2008. The bill prohibits the use, sale, and manufacturing of penta- and octa-BDE in California.

Many voluntary efforts in the US by EPA, states, and manufacturers are underway to seek safer alternatives to PBDEs, and the pressure from environmental groups for action is increasing. EPA just announced on November 3, 2003 that Great Lakes Chemical had agreed to phaseout penta and octa by the end of 2004. This turn of events was likely precipitated both by Great Lakes' development of an alternative flame retardant, and by a recent report by the Environmental Working Group showing more evidence of these substances in San Francisco Bay fish and breast milk. Among other voluntary efforts: EPA Region IX has initiated stakeholder dialogues, EPA has included PBDEs in the High Production Volume (HPV) evaluation and testing programs, the Massachusetts Toxics Use Reduction Institute is working with the coated wire and cable supply chain on safer alternative materials, and a new, multi-stakeholder "International Consortium for Fire Safety, Health and the Environment" has been formed to work together toward these common goals.

#### Conclusion

While flame retardants, including PBDEs, save lives in the short run by contributing to fire safety, an increasing body of evidence indicates that at least some of these compounds are persistent and bioaccumulative, with serious concerns about toxicity. As Europe moves forward to phase-out their use, U.S. and multi-national companies are setting goals to eliminate PBDEs from their products. Suppliers must be able to provide new, innovative, and safer flame retardant products in order to stay competitive in the global marketplace. These actions will ultimately begin to reverse the disturbing trends of PBDE accumulation in the environment.

### **PROGRAM UPDATES**



# Connecticut Department of Environmental Protection (CT DEP)

#### Agency Organizational Evaluation Underway

In light of recent staffing losses and budget cuts, Commissioner Arthur Rocque, Jr. has asked CT DEP managers and staff to consider the Department's existing structure and evaluate other potential organizational structures. The goal of the analysis is to provide the Commissioner with options to create a flexible agency that can maximize its resources and continually assess, revise, and update the priorities and strategies to achieve its mission today as well as address future challenges and opportunities. As an interim step, the decision was made to integrate staff from the Pollution Prevention office with the staff in the Ombudsman's Office. The new, centrally located group will focus on the agency-wide strategic priority of environmental stewardship as outlined in the Department's Environmental Quality Branch Strategic Plan of FY 2002-2007.

#### Bike to Work

CT DEP is an active member of the Bike to Work -Capitol Region Program. Just finishing their fourth season, this group is headed by the Capitol Region Council of Governments (CRCOG). A "Bike to Work" event, including free breakfast, is held on the last Friday of each month from April through October. Benefits include energy savings, emission reductions, air quality improvements, and reduced traffic. The program chooses a monthly "Super Commuter" - a person who has shown a real commitment to bike commuting, illustrated by the frequency and length of their commute, commitment regardless of the weather, and their ability to encourage others to commute via bicycle. The group also works with the state DOT and area towns to improve access and safety for bicycle commuters. For more information, visit http://www.crcog.org/bicycle.htm

#### **Greening Local Government**

The Offices of Pollution Prevention and Recycling participated in the Connecticut Council of Municipalities (CCM) annual convention on October 9 in Cromwell, CT. The theme of the convention was "Local Governments: New Challenges, New Solutions." The event attracted hundreds of municipal officials, students, and exhibitors. The DEP display showcased two cost-saving programs for municipalities: Implementing Pay-As-You-Throw (PAYT) (unit pricing for solid waste management) and Best Management Practices for Vehicle Maintenance and Repair (highlighting the newly revised, but not yet finalized, Pit Stops Fact Sheets). DEP staff was available throughout the day long event to talk to municipal officials about these programs. There was significant interest in the Pit Stops fact sheets. However, although officials think that PAYT makes sense, few in the state are willing to commit to it because of public resistance.

#### **Climate Change Action**

Governor Rowland formed a steering committee made up of Commissioners of the Department of Environmental Protection, Public Utility Control, Administrative Services, Transportation, Office of Policy and Management, and the CT Clean Energy Fund to begin to address climate change. The state completed a GHG inventory for the years 1990 – 2000, established a website (www.ctclimatechange.com) and a stakeholder process was launched in April 2003 to develop a CT Climate Change Action Plan. The stakeholder group is comprised of business leaders, non-profit leaders, and state agency representatives. This group ultimately must sort through potential GHG mitigation actions that come from working groups and make recommendations to the Governor's Steering Committee. Five working groups have been formed representing the electricity sector; transportation and land use sector; agriculture, forestry, and waste sector; residential, commercial, and industrial sector; and education sector. Each working group has put together a list of potential GHG mitigation measures and will analyze and prioritize each one. Input from both stakeholders and the general public will be considered for inclusion in the final Plan. All of the potential GHG



### WEB RESOURCES

This section of the NE States P2 News lists useful web resources that are focused on the topics of the Feature Articles.

#### HOSPITALITY

#### P2Rx Hospitality Topic Hub

http://www.newmoa.org/prevention/topichub/ Created by the Western Regional Pollution Prevention Network (WRPPN), this information resource is one of many collections of topic specific resources compiled by the P2Rx Centers and placed into a framework known as the Topic Hubs (http:// www.p2rx.org/). The Hospitality Topic Hub provides a brief overview of the operations found in the industry, the regulatory framework that facilities operate within, and pollution prevention opportunities that are available in this sector. The Hospitality Hub currently contains a collection of 47 online resources related to P2 and hospitality.

#### New York - Make Waste an Unwelcome Guest: The NYC Guide to Hotel Waste Prevention

http://home.nyc.gov/html/dos/pdf/guest.pdf This guide offers advice on how a hotel could prevent pollution, recycle, and reuse. The Guide includes case study information on a number of hotels and their efforts.

#### **BROMINATED FLAME RETARDENTS**

# Brominated Flame Retardants Information Clearinghouse

http://www.greenstart.org/efc9/

The Clearinghouse is a project of the Environmental Finance Center Region IX (EFC9) at California State University, Hayward who is working with EPA Region IX to explore this emerging issue. There are a number of papers and presentations available from this site.

# Materials and Products with Alternative Flame Retardants

http://www.mst.dk/udgiv/Publications/1999/87-7909-416-3/html/indhold\_eng.htm Information on alternatives to BFRs including what products they are used in.

#### Brominated Flame Retardants: Substance Flow Analysis and Assessment of Alternatives

http://www.mst.dk/udgiv/Publications/1999/87-7909-416-3/html/helepubl\_eng.htm This report was prepared for the Danish Environmental Protection Agency and consists of an analysis of the flow of brominated flame retardants through the Danish society and an assessment of the possibilities for substitution of the flame retardants.

# Bromine Science and Environmental Forum (BSEF)

http://www.bsef-site.com/

BSEF was formed by the bromine industry in 1997. Site contains news and publications about BFRs.

# Growing Threats: Toxic Flame Retardants and Children's Health

http://www.environmentcalifornia.org/reports/ GrowingThreats03.pdf

Authored by the Environment California Research and Policy Center, this report presents the some scientific understanding of flame retardants of concern in North America, their presence in our bodies and the environment, and their likely effects on children's health.

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### WEB RESOURCES

#### Continued from page 11

**EU Lawmakers Vote Broad Fire Retardant Ban** http://ens-news.com/ens/sep2001/2001-09-06-02.asp News article on the passage of bans by the EU.

#### Phase-out of PBDEs and PBBs

http://www.kemi.se/aktuellt/pressmedd/1999/flam\_e.pdf Report by The Swedish National Chemicals Inspectorate that covers the use of these flame retardants in society, their dispersion, and a brief discussion of available alternatives.

#### Flame Retardant Chemical Found in Fish, Humans

http://ens-news.com/ens/jan2002/2002-01-31-07.asp News article on a 2001 study done by Virginia Institute of Marine Science (VIMS). The study found that freshwater fish in Virginia contain the highest reported levels in the world of a common flame retardant, penta bromo diphenyl ether (pentaBDE). Full report published in the December 2001 issue of Environmental Science and Technology.

#### **Bromine Free Alternatives in Electronic Products**

http://www.greenstart.org/efc9/bfrs/ppt/BFAEP.ppt Presentation made at the BFR Electronics Conference and Roundtable September 2002. Contains study information comparing the performance of and dioxin formation by combustion of brominated and bromine-free flame retardants.

### Electronic Wastes:

#### An Overview of Disposal Concerns

http://www.metranorth.org/E-Waste.ppt Presentation includes information on how BFRs are being used in electronics and the percentages of that use compared to other uses. Also provides data on the percentage of BFRs that are used in each component of electronics. Provides an overview of EU regulatory developments related to BFRs.

For more information on P2 web resources contact: Andy Bray, NEWMOA (617)367-8558 x 306, abray@newmoa.org. mitigation strategies for each of the working sectors are listed in "GHG Reduction Opportunities Tables" posted at http://www.ccap.org/m-proj-CT-CCSD.htm. The final recommendations will be presented to the Governor's Steering Committee on December 31, 2003.

#### Smart Growth Training

Connecticut DEP and Hartford neighborhood groups cosponsored a series entitled "Smart Growth Training for Hartford Neighborhoods" in 2003. At the first session, a land-use expert talked about sprawl and smarter growth in Connecticut and illustrated how smart growth principles promote a more livable urban community while protecting Connecticut's open space. The program opened with a smart growth quiz show, "Who Wants to be a Millionaire?"

The second program in the series featured a role-play in which the stakeholders in a development dispute presented their case in a mediation session and the audience determined the outcome of the mediation. Using a "Smart Growth Scorecard" participants played the jury to determine the best way to develop the proposed site. Workshops on reading site plans, designing better parking and changing local zoning concluded the program.

**For more information contact:** Mary Sherwin, CT DEP (860) 424-3246.

#### **Green Cleaning**

In response to numerous requests for information on this topic, the CT DEP developed a web page on environmentally-preferable alternatives to toxic household products. The web page shows a cut-away of a house and gives corresponding green "recipes" for each room. To further promote use of these make-your-own alternatives, P2 staff has put on demonstrations at various venues, including health and wellness seminars, cable TV shows, and fairs. Usually a very dirty window is brought along to demonstrate how effective the alternative glass cleaner is and a raffle is held for a caddy containing the "ingredients" needed to make the basic green cleaners.

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



#### Maine Department of Environmental Protection (ME DEP)

#### P2 Program Activities

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

- Hosted the annual Multi-State Work Group meeting.
- Unveiled a new P2 web site and held a P2 demonstration day for DEP employees for P2 week.
- Continued to provide on-site assistance to auto salvage and auto repair facilities.
- Provided outreach and assistance to small business development centers and small business counselors.
- Established further partnerships with business assistance providers.
- Established partnerships within the energy efficiency sector and promoted their services to Maine businesses
- Assisted three companies with the implementation of an environmental management system.
- Conducted onsite compliance assistance utilizing Maine's Small Business Compliance Incentive Policy (SBCIP).
- Continued to provide assistance to the Green Campus Consortium in their efforts to move towards sustainability.
- Worked in conjunction with the Climate Change Steering Committee on the New England Governors' and Eastern Canadian Premiers' initiative to reduce green house gas levels 10 percent under 1990 levels by 2012.
- Continued to provide assistance to a number of industry sectors.
- Revitalized the Compliance Advisory Panel (CAP) as an effective tool to weigh in on OIA activities.
- Attended EPA P2 planning training in Boston.

- Attended Audubon International's Golf Course Planning workshop.
- Attending monthly EPA EMS training.
- Attended Iowa Waste Reduction Center's controlled spay BETA training.

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



# Massachusetts Office of Technical Assistance (MA OTA)

#### Innovative Manufacturing Workshop

On October 23, 2003, OTA co-sponsored a workshop that highlighted new technologies and approaches that enable "Green and Clean" processes yielding environmental and economic benefits. Secretary of Environmental Affairs Ellen Roy Herzfelder welcomed the 61 attendees from industry and state government. Dr. John Warner was the key note speaker during the luncheon program and spoke about green chemistry to an audience that not only included the workshop attendees but over 25 students from local Worcester high schools. Afterward, the participants and students explored displays of Massachusetts industries that have successfully reduced or eliminated toxics or water use in their processes.

**For more information contact:** Denise Zambrowski, MA OTA denise.zambrowski@state.ma.us.

#### New Training Center at Vocational Technical School

On October 2, 2003, Environmental Affairs Acting Undersecretary Gary Moran and Massachusetts Office of Technical Assistance Director Paul Richard presided over a ribbon-cutting ceremony at Bay Path Regional Vocational Technical School in Charlton, MA for the opening of the first Massachusetts Spray Technique and Analysis Research (STAR) training Center.

The MA OTA established the STAR training center, in cooperation with Bay Path Regional, with a \$52,000 grant from the U.S. Environmental Protection Agency that will work to improve manual spray-painting operations, thereby reducing health risks and environmental impacts. The program, originally developed by the Iowa Waste Reduction Center, is directed towards automotive technicians, industrial painters, and students studying to become spray technicians. Participants experience individual, hands-on training using a laser-guided spray gun that optimizes transfer efficiency and reduces overspray, thus reducing pollution and paint waste.

As part of the grant requirements a total of ten business professionals will be trained in this new technology. So far, five spray technicians have been trained from the following Massachusetts companies: Central Coating in West Boylston, Doranco Inc. in Mansfield, Eastern Etching and Manufacturing Inc. in Chicopee, General Dynamics C4 Systems in Taunton, and L & J of New England in Worcester.

For more information contact: Rich Bizzozero, MA OTA richard.bizzozero@state.ma.us.





The Northeast 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. Current P2Rx projects include online Topic Hubs and a National Assistance Programs Database. For information about these efforts, visit http://www.newmoa.org/prevention.

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

#### Partnership Gains Recognition for School Mentoring

On Friday, June 13, 2003, at Natick High School, Environmental Affairs Assistant Secretary Gina McCarthy, Director of the Massachusetts Office of Technical Assistance Paul Richard, and Natick School Superintendent Jim Connolly recognized The Boston Scientific Corporation for its participation in the Massachusetts Mentoring Program for School Environmental Safety and Health. The Massachusetts Mentoring Program for School Environmental Safety and Health brings industry expertise into local schools to create safer learning environments for students.

Boston Scientific has worked with members of Natick High School's Science Department to train teachers in the safe handling of chemicals in classrooms, preparation rooms, and chemicals storage areas. Boston Scientific and Natick High continue to work together to develop further safety initiatives.

The Mentoring Program has received requests to participate in the program from the following 13 public high schools: Amherst-Pelham, Attleboro, Chicopee, Dedham, Haverill, Lee, Longmeadow, Natick, Narragansett Regional, Oakmont Regional, Quincy, Revere, Springfield, and Wayland. Nine of these communities have been matched with business mentors.

**For more information contact:** Denise Zambrowski, MA OTA denise.zambrowski@state.ma.us.

# Massachusetts Department of Environmental Protection (MA DEP)

#### **Continued Reductions in Chemical Use & Waste**

Since the Toxics Use Reduction Act (TURA) became law in 1989, major chemical-using facilities in Massachusetts have dramatically reduced their reliance on toxic chemicals, making Massachusetts a national leader in cutting toxics use and waste.

Over the summer, the MA DEP issued its annual report for 2001 on the use of toxic chemicals in Massachusetts. DEP has been tracking a core group of 323 facilities that have been subject to TURA reporting requirements since the base year of 1990. Between then and 2001, those facilities have reduced:

- Toxic byproducts by 69 percent,
- Toxic chemical use by 45 percent,

- Quantities of toxics shipped in product by 60 percent,
- On-site releases of toxics to the environment by 92 percent, and
- Transfers of toxics off-site for further waste management by 58 percent.

In 2001, the core group used 583 million pounds or 53 percent of the 1.1 billion pounds of toxic chemicals reported statewide, excluding trade secret data. All told, 676 facilities reported using 192 TURA-listed toxic substances in 2001. These facilities fell within specific standard industrial classification (SIC) codes, had ten or more full-time employees, and used listed toxic substances at or above reporting thresholds. All facilities combined reported that they:

- Used nearly 1.3 billion pounds of toxic substances (down from 1.4 billion pounds in 2000),
- Generated 113 million pounds of byproduct or waste (down from 128 million pounds),
- Shipped 377 million pounds of toxics in or as products (down from 424 million pounds),
- Released 9 million pounds of toxics to the environment (down from 11 million pounds), and
- Transferred 35 million pounds of toxics off-site for further waste management (down from 42 million pounds).

The 2001 report contains data on persistent bioaccumulative toxic (PBT) chemicals, such as polycyclic aromatic compounds, mercury, dioxins, and polychlorinated biphenyls (PCBs), reportable since 2000. PBT chemicals are of special concern because they are highly toxic and remain in the environment for long periods of time, are not readily destroyed, and build up in the food chain. Most of the PBT use reported for 2001 was attributable to impurities in materials used, such as polycyclic aromatic compounds contained in fuel oils.

Effective with reporting year 2001, lead and lead compounds were classified as PBTs, and the reporting thresholds were lowered to 100 pounds. Due to the lower reporting threshold for lead and lead compounds, the number of facilities filing for lead increased from 15 to 135, and the number filing for lead compounds increased from 32 to 115.

For more information contact: (617) 292-5982, visit www.mass.gov/dep/bwp/dhm/tura.

#### **Consent Order Yields P2**

Bunzl Extrusion of Northborough, MA, produces extruded medical tubing. The company used the lubricating solvent isopropyl alcohol in its cutting and packaging operations, thereby producing emissions of volatile organic compounds (VOCs). DEP discovered that the facility was emitting VOCs in excess of 10 tons per year without a permit.

Under a consent agreement with DEP and a plan approval from the Agency, Bunzl incorporated policies restricting the use of isopropyl alcohol into its ISO 14001 program to reduce and control emissions. The plan included new technology (a new "chiller") and employee incentives that reduced actual solvent emissions from 10 tons per year in 2001 to approximately 4 tons this year.

**For additional information contact:** Patricia Arp, MA DEP (508) 767-2771.

#### Web Site Focuses on Combustion Facilities

The seven waste-to energy plants in Massachusetts are the focus of a new DEP Web site (http://mass.gov/dep/ mwc/mwchchome.htm). These electricity-producing facilities, also known as municipal waste combustors, burn about three-quarters of the household and commercial trash that needs to be disposed in the Commonwealth.

The Web site provides an overview of the role municipal waste combustors play in the Massachusetts' solid waste management system, how they operate and are regulated, and the progress that the five largest facilities are making toward reducing their emissions of targeted air pollutants.

Among the facilities' achievements has been an 85 percent reduction in mercury emissions from pre-1998 levels. Much of this improvement can be attributed to a DEP tool for preventing pollution from entering the combustion process. The agency requires facility operators to submit Material Separation Plans that describe how they will prevent discarded items that contain mercury from entering their plants.

In the first year that they were required to submit Material Separation Plans, the operators of the five largest facilities in Massachusetts collaborated on a consumer education and outreach campaign, and individually undertook a variety of other activities, including thermometer exchanges, fluorescent bulb collections, and related programs. These efforts were expected to reach approximately half of the state's population. The Web site provides information about emissions of specific pollutants and operating conditions and compares environmental performance across the industry in Massachusetts. Information about DEP's compliance and enforcement activities at each combustion facility is also provided.

# Massachusetts Toxics Use Reduction Institute (MATURI)

#### Ellenbecker Named New Director

Dr. Mike Ellenbecker has been named the new Director of the Institute. Ellenbecker was instrumental in writing the legislation to establish the TURA program in 1989 with Dr. Ken Geiser and has served as deputy director since its inception. He is a full professor in the Work Environment Department at the University of Massachusetts Lowell. Liz Harriman has been appointed the new deputy director, promoted from associate director of research. Former director Geiser will chair the Institute's Advisory Board, and is accepting new responsibilities assisting the University's research programs.

#### Millipore Selected as EMS Peer Mentoring Host Site

During the last four years, the Toxics Use Reduction Institute's Environmental Management Systems Peer Mentoring Work Groups have been extremely successful helping industries from all sectors and of all sizes develop site-specific and highly effective Environmental Management Systems (EMSs). Millipore has been selected as this year's host facility due to its strong corporate culture of environmental stewardship and social responsibility. Several Millipore facilities have already developed EMSs that have been certified under the ISO 14001 standard. Millipore has committed to attaining ISO 14001 certification for its Massachusetts facilities by 2005. EMS Peer Mentoring Work Group meetings will be held at Millipore's corporate office in Billerica. The deadline for applying to be part of the Work Group is November 21.

**For more information contact:** Pam Civie, MA TURI, (978) 934-3142, pcivie@uml.edu.

#### **TUR Planner Conference**

The TUR Planner Continuing Education Conference on November 18 in Marlborough will offer planners and others interested in reducing toxics four very different topics. At the first of two morning sessions, participants will learn about the effect of international materials restrictions on the electronics and electrical equipment industry and how this \$181 billion industry sector is responding. Concurrently, three panelists will discuss how to achieve effective, value-added implementation of an EMS to create monetary and stakeholder value. In the afternoon, Dr. Robert E. Burr, distinguished physician and toxicologist, will take a look at how the so-called "high priority substances" affect the body. Meanwhile, the other afternoon session will cover non-production TUR, illustrating how innovative toxics use reduction strategies have been developed for practicing TUR in municipal buildings (e.g. schools), small businesses, and homes.

For more information contact: Todd MacFadden, MA TURI (978) 934-3391, todd\_macfadden@uml.edu.

#### Lead-Free Electronics Supply Chain Workshop

General Dynamics, the newest member of the Massachusetts Lead-Free Electronics Consortium, will host the next Lead-Free Electronics Supply Chain Meeting at their facility in Taunton on December 3. Topics will include additional discussion and updates materials declarations, legislative updates, and the latest research and testing results of lead-free solder alloys. The meeting will feature a tour of the General Dynamics facility.

For more information contact: Todd MacFadden, MA TURI (978)934-3391, todd\_macfadden@uml.edu.

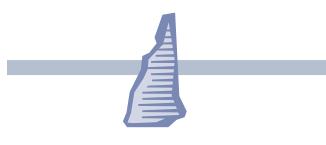
#### Requirements for Lead & Lead Compound Users

Many Massachusetts companies were required to report for the first time in 2002 or 2003 on their use of such persistent, bioaccumulative, and toxic substances as lead as a result of lower reporting thresholds. Those same companies will also be required to complete a Toxics Use Reduction (TUR) Plan by July 1, 2004. TURI is offering a one-day workshop that covers the essential basics of TUR Planning on December 16 in Marlborough. It is intended for companies that intend to hire an outside, certified TUR Planner to complete and certify their plans, in order to help them understand the planning process and their on-going planning requirements. But it is also appropriate for veteran TUR planners who wish to refresh their skills.

For more information contact: Todd MacFadden, MA TURI (978)934-3391, todd\_macfadden@uml.edu.

The Greenlist Bulletin continues to be a successful way for people to get information about TURI's library offerings quickly via email. The Bulletin generates diverse queries for the librarian. The most popular topics including regulatory issues, environmental management systems, brominated flame retardants, pressure treated wood, dry cleaning, nanotechnology, inks, green building, homeland security, and European chemicals policy.

*For more information contact:* Janet Clark, MA TURI, clarkjan@turi.org.



### NEW HAMPSHIRE

#### New Hampshire Department of Environmental Services (NH DES)

#### **Dioxin Initiative**

The New Hampshire Dioxin Reduction Strategy is a-firstin-the-nation attempt to directly address public health concerns regarding exposure to dioxin by comprehensively identifying and quantifying dioxin releases for sources within the state, and implementing actions to reduce human exposure.

The comprehensive dioxin emissions inventory for New Hampshire identified 22 major source categories of dioxin releases in the state, five of which accounted for over 80 percent of total dioxin releases. The five major source categories included:

- Hospital/medical/infectious waste incinerators (29 percent),
- Wood-fired boilers and utilities (20 percent),
- Residential burning of domestic waste (17 percent),
- Residential wood combustion (10 percent), and
- Mobile source fuel combustion (8 percent).

The NH DES Persistent Bioaccumulative and Toxics (PBT) Task Force recommended prompt regulatory action to reduce dioxin from two source categories - medical waste incineration and backyard trash burning. In response, a new state rule regulating emissions of dioxin and mercury from hospital, medical, and infectious waste incinerators (HMIWIs) was put in place. After implementation of this rule, six of NH's eight existing hospitals operating medical waste incinerators reduced their generation of medical waste to the point where it was no longer cost effective to operate their incinerators, and permanently shut them down; resulting in a 95 percent reduction in dioxin emissions from this source category. In addition, in 2001 the NH legislature enacted a new law, RSA 125-N, which authorized DES to establish a statewide dioxin reduction and control program, and as its first action, prohibited the practice of residential open burning of household trash in the state. The prohibition on residential trash burning took effect in January 2003 after an extensive outreach effort was undertaken by DES to educate the public regarding the new law and its public health implications. By addressing and acting on these and other dioxin source categories, DES estimates that statewide dioxin emissions have already been reduced by at least 30 percent, and will result in an overall reduction of over 50 percent in the next two years.

For more information contact: Rick Rumba, NH DES (603) 271-1987, rrumba@des.state.nh.us, visit http:// www.des.state.nh.us/ard/dioxin/press\_dioxinstrategy.htm

#### Motor Vehicle Salvage Facility Project

In June and August, DES and the New Hampshire Auto & Truck Recyclers Association, sponsored five workshops as part of the New Hampshire Green Yards Program, which covered best management practices at automotive salvage facilities. The evening sessions focused on topics of interest to salvage facilities and the afternoon sessions were geared toward municipal officials. Turnout for all the session exceeded expectations, and the information collected at these workshops will assist DES in future outreach efforts.

*For more information contact:* Paul Lockwood, NH DES plockwood@des.state.nh.us.

#### Healthcare Project

NHPPP continues to support the New Hampshire Hospitals for a Healthy Environment initiative. The last quarterly meeting focused on micro-fiber mop technologies as a way to decrease chemical use and conserve water at hospitals. The next session in December will focus on pharmaceutical, chemotherapy, and medical waste disposal and reduction opportunities.

The home care initiative is underway. DES surveyed New Hampshire home care agencies and clinical staff to determine current mercury use and management procedures. The survey illustrated that those home care agencies that responded to the survey do not use mercurycontaining blood pressure cuffs or mercury-containing fever thermometers. Unfortunately, on the other side of the coin, only 25 percent are recycling fluorescent bulbs correctly, and only 30 percent of home care agencies have mercury spill procedure training or policies. NHPPP will continue to conduct outreach to this sector by encouraging them to participate in the Hospitals for a Healthy Environment program and to provide publications to their clients on the New Hampshire fish advisory and mercury spill procedures.

For more information contact: Sara Johnson, NH DES sjohnson@des.state.nh.us.

#### **Mercury Legislation**

P2 staff has been working with the House Science, Technology and Energy Committee on HB 366, the mercury-added products bill that was retained in Committee after the 2003 legislative session. DES has put forth a proposal to the Committee to narrow the scope of the legislation to focus on a sales prohibition for mercuryadded measuring devices, switches, and relays (including thermostats). The Committee is currently considering this proposal and will make a decision by the end of November on whether to recommend the proposal for the 2004 legislative session.

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

#### Farewell to Dr. Philip J. O'Brien

Dr. Philip J. O'Brien, Ph.D., P.G., said farewell to the Department of Environmental Services after 13 years as the Waste Management Division Director. More than 100 people from the New England area and DES attended a farewell reception on October 23. DES also enjoyed a lively "roast" for Dr. O'Brien, which highlighted more of his finer qualities. Dr. O'Brien was always a strong supporter of the NHPPP. He particularly enjoyed the P2 Internship Program, the P2 Annual Conference, and Governor's Award for P2. Dr. O'Brien will continue his environmental efforts and serve a three-year term as director of the Lake Sunapee Protective Association. His presence and guidance will be missed.



**NEW YORK** 

#### New York State Department of Environmental Conservation (NYS DEC)

#### Policy on Environmental Management Systems (EMS)

The New York State Department of Environmental Conservation (NYS DEC) has developed a Commissioner Policy that will incorporate Environmental Management Systems (EMS) and other environmental performance improvement tools into NYS DEC programs. This policy identifies EMS and other environmental performance improvement tools as effective ways to improve the rates of compliance within the regulated community and to diminish the environmental impact resulting from both regulated and non-regulated activities. The policy authorizes the development of programs to: 1) develop and implement an Environmental Leadership Program (ELP) to encourage the development of EMSs; 2) develop and use environmental performance improvement tools in the Department's enforcement program; and 3) pilot the use of EMSs in NYS DEC operations. In addition to the elements found in EMS models, such as ISO 14001, the Draft Commissioner's Policy requires Department programs to promote EMSs that consider the following: views of stakeholders; measurable performance; credibility; and public disclosure and communication.

The policy was informed by past NYS DEC efforts to engage multiple stakeholders in the pursuit of solutions to New York's most pressing environmental problems. Specifically, the NYS DEC's Comparative Risk Project (www.dec.state.ny.us/website/ppu/p2crp.html) and the Department-sponsored Dialogue on Tools to Improve Environmental Performance (www.dec.state.ny.us/website/ ppu/dialmain.html) were instrumental in shaping the Commissioner's Policy and in recognizing the need for tiered approaches for a more strategic environmental management framework. These multi-stakeholder efforts endorsed greater use of EMSs and other innovative environmental performance tools as a means to mitigate risks to New York's environment.

For more information contact: John Vana, NYS DEC (518) 402-9490, or visit www.dec.state.ny.us/website/ppu/ ems/index.html.

#### **P2** Conference

The Pollution Prevention Unit co-sponsored the "New York State Pollution Prevention and Recycling Conference" on October 20 and 21 at the Albany Marriott. The joint conference with the New York State Association for Reduction Reuse and Recycling, Inc. is the first time that the Governor's Awards for Pollution Prevention and Waste Reduction and Recycling were presented together at the same event. NYS DEC Commissioner Erin Crotty made the presentations along with presenting awards to the winners of the Waste Recycling Poster Contest. The plenary session was well attended and covered Electronics: Legislative and Practical Issues. Break out session topics included: Tire Recycling Progress in NY; P2 and Recycling Governor's Award Success Stories; the Role of P2 in Permitting; P2-Mercury Activities; and P2 Innovative Approaches. Over 120 people attended the conference.

#### Mercury

The Department's Mercury Task Force chaired by the Pollution Prevention Unit met with executive staff to seek formal recognition of the Task Force and to increase their knowledge about the mercury activities of the group. Mercury Task Force activities currently include: 1) the draft Mercury Task Force Report - which outlines current and proposed future program activities; 2) the draft executive order - which proposes to reduce or eliminate the use of mercury and mercury-containing products by State agencies, to appropriately manage existing mercury or mercurycontaining products presently owned by State agencies, and to encourage others to do the same: and 3) proposed mercury legislation - which follows the NEWMOA model legislation. Activities are also underway with the Governor's office to review proposed legislative initiatives regarding mercury. Action on these initiatives currently looks favorable.

#### Ski Facilities

Staff is working on the development of a P2 Ski video for the ski industry of NY. A Memorandum of Understanding (MOU) between DEC and NY Network is being developed, which will allow NY Network (part of the State University of New York system) to assist DEC in the development and recording of a training video to illustrate various P2 practices that can be carried out by operators at ski areas throughout New York State. DEC is partnering with the Ski Areas of New York (SANY) on this project and filming is expected to commence in December.



### **RHODE ISLAND**

#### Rhode Island Department of Environmental Management (RI DEM)

#### Auto Body Repair

The Department of Environmental Management is proceeding with an Auto Body Environmental/Occupational Health Compliance Self-Certification Program that was launched in December 2002 as a voluntary initiative. It is designed as a multi-media program, a simpler and more useful way to regulate the auto body repair sector in a less threatening manner, and to improve compliance with environmental and occupational health standards with business assistance through a single source. The auto body repair industry is a previously underregulated small business industry sector. With startup funding from EPA Region 1-New England in 1994, the results of field research addressing environmental releases, take-home toxics, and work place exposures (to lead and to other toxicants) were incorporated into a broad based self-certification program. The program covers training requirements, hazardous waste management, air quality standards, occupational health and safety, and pollution prevention techniques.

It was viewed as the first ever regulatory and assistance partnership involving the state environmental and health departments, a state university, and a state vocational training institution. Program participants are the Rhode Island Departments of Environmental Management, Health, and Business Regulation, U.S. Department of Labor, Occupational Safety & Health Administration

The Auto Body Self Certification Program is designed as a multi-media program, a simple and more useful way to regulate the sector, and to improve compliance.

(OSHA), and William M. Davies Jr. Career & Technical High School. The program leverages scarce resources, reaches a substantially higher percentage of the regulated sector than routine enforcement inspections, and requires relatively less effort to comply by the regulated community than traditional permitting and enforcement programs.

The program has already begun to show environmentally measurable results. Certification workbooks and selfcertification checklists were sent to 373 auto body shops licensed by the Rhode Island Department of Business Regulation (DBR) in December 2002, with a June 30, 2003 deadline to respond. Shops were sent a reminder letter in May 2002 of the upcoming deadline to respond. Initial results from review of electronic information logged from submitted checklists show that:

- There were 367 entries from shops in business at the deadline
- 170 completed checklists were returned and 14 businesses in the auto repair industry filed Non-Applicability Statements (a 50.1 percent response rate to the mailing)

• 282 Return-to-Compliance (RTC) Plan Forms were returned with Checklists

Additionally, ten shops licensed by DBR since the original mailing were identified from DBR's October 2003 List of Licensees. Those shops were sent a packet in October 2003 with program information, the Certification Workbook and Self-Certification Checklists, and invited to participate in the program.

Some examples of compliance improvements being taken by these shops include:

- Facility modifications to improve vehicle wash water management
- Purchase and use of solvent recyclers
- Contingency procedures and emergency plan development
- Purchase and use of technologies that prevent the release of and reduce worker exposures to metal bearing sanding dust
- · Sending staff to physician's offices for physical exams as part of upgraded respiratory protection programs
- Environmental and health and safety training for workers
- Eliminating the use of the EPA and OSHA regulated carcinogen methylene chloride, as a paint stripper.

The program will proceed in the following areas:

- Field audits and enforcement inspections of facilities selected randomly
- Follow-up with shops that submitted RTC Plan forms for compliance status on items identified on forms
- Work with the DEM Management Information Systems Unit to develop a comprehensive database of information from participating shops that allows for data management and analysis
- QA/QC each checklist returned, and make follow-up calls or communicate with shops as needed
- From submitted checklists by shop, summarize data
- Prepare a summary report of data
- Share results of data with DEM regulatory offices, state partners, and stakeholders

In order to conduct post program implementation field audits, entries were assigned identifier numbers in alphabetical order by shop. Seventy identifier numbers were chosen by electronically generated random selection. Of those shops selected, thirty-four (34) shops submitted

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completed checklists, thirty-four (34) did not submit checklists (one awaiting submission), two (2) submitted Non-Applicability Statements, and one is in the process of returning the final checklist.

Field audits of selected shops that submitted checklists will be conducted by DEM Office of Technical and Customer Assistance staff, enforcement inspections of those not submitting checklists will be conducted by DEM Office of Compliance and Inspection staff.

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

# Rhode Island Narragansett Bay Commission (NBC)

#### P2 for Junkyards & Scrap Metal Facilities

The Narragansett Bay Commission (NBC) has been awarded a \$25,000 EPA Pollution Prevention Grant to work with junkyards and scrap metal facilities within the State of Rhode Island. Through this project NBC will identify pollutant sources and ways of utilizing P2 and sound environmental management practices to eliminate or at least reduce environmental impacts from these facilities' operations.

The first steps to be taken by NBC will be to survey a representative sampling of the more than 45 licensed automotive salvage yards located within NBC servicing. This survey will help to identify environmental impacts from common scrap metal facility practices and procedures such as:

- Vehicle crushing/shredding operation
- Removal and management of automobile fluids including:
  - Automotive waste oil
  - Anti-freeze
  - Transmission fluids
  - Brake fluids
- Management of mercury switches
- Employee environmental awareness training
- Management and disposal of tires

The goal of this initial survey will be to develop P2/ Environmental Compliance audit procedures that can be used by NBC staff and project partners from the Rhode Island DEM and the University of Rhode Island to conduct P2 assessments of auto salvage operations throughout the state. Efforts will focus on collecting information that will both allow for a quantitative measurement of pollutant loadings to air water and land from auto salvage operations and will help in the development of appropriate technical assistance programs to minimize these environmental impacts. Work on this project is scheduled to commence during the fall months of 2003.

#### **Best Management Practices for Dental Offices**

NBC's Pollution Prevention and Industrial Pretreatment Programs have developed a set of Environmental Best Management Practices (EBMPs) for dental offices that focuses on proper management of dental amalgam waste and establishes streamlined wastewater discharge permit conditions/guidelines for these operations.

Dental offices that adopt these EBMPs will be allowed to eliminate end-of-pipe monitoring requirements provided they certify compliance with EBMP guidelines that include:

- Installation and proper operation of an ISO certified Amalgam Separator with a 99 percent or greater amalgam removal efficiency,
- Development and implementation of mercury spill control procedures,
- A thorough assessment of all existing sink traps and drains,
- Proper maintenance and operation of vacuum pump filters
- Compliance with specific record keeping requirements,
- Development and implementation of an employee environmental training program, and
- Installation and proper maintenance of chair-side amalgam traps

NBC plans to finalize these EBMPs and distributed them as part of a permitting initiative early next year.

#### Best Management Practices – Artists & Art Studios

The City of Providence has been noted to have more artists per capita than most other cities in the United States. Recognizing that many of these artists work in more than one media and that certain materials that they work with can be dangerous to human health, and the environment, NBC formed a working group consisting of representatives from RI DEM, the Rhode Island School of Design, the Rhode Island State Council of the Arts and an independent artist to develop an environmental, health and safety educational program for these local artists.

The efforts of this multidisciplinary working group have resulted in an eight-page booklet entitled Environmental



### NEW STATE P2 PUBLICATIONS

This section of NE States P2 News lists new P2 publications available from the Northeast states

#### NH P2 Report to the Legislature

New Hampshire Pollution Prevention Program Report to the Legislature 2001-2002 http://www.des.state.nh.us/nhppp/leg\_report\_02.pdf,

#### Toxics Use Reduction Case Study

Massachusetts Office of Technical Assistance (OTA) announces the publication of a new toxics use reduction case study. Crane & Company, Inc. (Crane), located in Dalton, Massachusetts, is the oldest, continuously run paper manufacturer in North America. Crane is a specialty mill that produces paper requiring highly technical specifications, mostly from cotton and other natural and synthetic fibers. The company reduced the use of sulfuric acid by approximately 697,000 pounds and sodium hypochlorite by 576,000 pounds between 1999 and 2000, a combined reduction of about 46 percent. Crane achieved these reductions by modifying the process chemistry for the re-pulping of off-specification papers. The sulfuric acid was replaced with an innovative liquid carbon dioxide system and the sodium hypochlorite was reduced by specifying cleaner raw materials, and by controlling the temperature and pH of the process. This and other case studies are available at www.mass.gov/ota.

#### Multi-State Working Group Preparing EMS Guidance

The rise of proactive, comprehensive environmental management systems in the 1990s represented an enormous change in how some leading businesses manage their environmental affairs. The change in environmental ethic in these leading businesses has been enormous.

Unfortunately, while the use of these management tools has brought great value to the organizations that

use them, external parties – the insurance company, the bank, the neighbors, and the government, have been slower to recognize this value. One reason for this is the fact that most EMS models, including ISO 14001, are specifically tailored for internal value – that is, value delivered to the organization with the EMS - and do not address questions of delivering value to external parties.

The Multi-State Working Group on Environmental Performance (MSWG – www.mswg.org) came together in the mid-1990s over the question of how EMS use might affect state and federal government environmental oversight and regulation. Recognizing the problem of internal value versus external value, MSWG decided to try to provide guidance on how to use an EMS to deliver to external parties.

The objective of the guidance is to help organizations that wish to develop an EMS that, in addition to providing internal value, delivers value to external audiences – an External Value EMS. Such outside audiences include, among others: government authorities, a facility's neighbors, customers and suppliers, environmental groups, investors, and the financial community. This voluntary guidance will include a general description of key issues that should be addressed within an organization's EMS if it has these external value aspirations, as well as explanations as to why including such elements should build credibility in the eyes of external stakeholders.

For more information contact: Bob Minicucci, NH DES rminicucci@des.state.nh.us or visit http:// www.mswg.org/EVEMS.htm. Best Management Practices for Fine Art Painting Studios (www.narrabay.com/Documents/PDFs/FineArtBMP.pdf). The booklet introduces local fine art painting studios to environmental issues that are relevant to them and includes useful information, such as web links, contacts, and regulatory requirements. Recently the booklet was the subject of a web-based survey distributed by the Rhode Island State Council on the Arts that solicited opinions and comments from many local artists. This interactive web link has allowed the working group to obtain continuous feedback from the community on a variety of environmental issues and concerns.

Next steps include printing and disseminating the booklet, conducting educational presentations at art studios and art classrooms and initiating studies of other art sectors.

#### P2 for Hospitals & Health Care Facilities

During the summer months of 2003 NBC's P2 Program worked with an engineering intern from the University of New Hampshire on a series of on-site environmental technical assistance audits of eight Rhode Island hospitals/ health care facilities. Each audit focused attention on multi-media environmental issues, pollution prevention, and environmental regulatory compliance and helped to identify issues of importance to hospital environmental, health and safety personnel. Major environmental issues identified during these audits included:

- Hazardous Waste Management
  - Contingency Plans
  - Satellite Accumulation
  - Labeling
  - Employee Training
- Universal Waste Management
- Spill Control Procedures
- Underground Tank Management
- EPCRA Compliance

NBC will be organizing a half-day pollution prevention/ environmental compliance educational workshop for all of Rhode Island's healthcare industry early next year to help address these major areas of concern.

*For more information contact:* Jim McCaughey, RI NBC (401) 461-8848 x352.



### Vermont Department of Environmental Conservation (VT DEC)

#### **Business Workshops**

A statewide workshop series entitled "Vermont Hazardous Waste Regulations Explained for Small Businesses" was sponsored in October at five locations by the Environmental Assistance and Waste Management Divisions. There were over 150 attendees in this second year of workshops targeted at conditionally exempt generators that covered regulatory and pollution prevention issues. 85 percent of attendees indicated that they would make operational changes as a result of the workshop. It is likely that the workshops will be repeated in future years.

#### **Dental Self-Certification Program**

DEC completed a voluntary dental self-certification program with over 350 dentists in the state. Over 90 percent of dental practices filed self certification forms indicating their compliance with environmental best management practices for hazardous waste, solid waste, and wastewater management compliance.

#### PBT Grant

DEC received an EPA PBT grant to provide mercury education and outreach to populations most sensitive to mercury contamination. Targeted mailings of brochures on mercury in fish will be mailed to recently married couples and new parents. Childbirth educators, day care centers, pediatrician's offices, and other health care providers will be mailed brochures and posters. An educational video for schools will also be produced under the grant. DEC will work on this project in collaboration with the Vermont Department of Health.

#### Fluorescent Lamp Recycling

DEC was awarded an EPA fluorescent lamp recycling outreach grant to implement business/commercial outreach programs to increase fluorescent lamp recycling rates. Baseline recycling rates are being determined to compare recycling rates before and after outreach efforts.

There were over 150 attendees at the VT Hazardous Waste Regulations Explained for Small Business Workshops... 85 percent of attendees indicated that they would make operational changes as a result of the Workshops.

These efforts will include mass mailings of brochures to businesses, daily newspaper inserts, and various media outreach, including radio and TV.

#### **Consumer Toxics Use Reduction**

As part of an effort to better understand consumer behavior and barriers toward purchase and use of less toxic and environmentally preferable products, DEC is conducting a consumer phone survey through the University of Vermont. The Department expects the survey results by the end of the year and hopes to use these results, along with a recent survey of retailers, to develop one or more pilot projects to test approaches that encourage toxics use reduction and environmentally preferable purchasing.

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



#### **EPA REGION 1 - NEW ENGLAND**

#### P2 Measurement

On October 21, EPA Region 1 - New England and NEWMOA hosted a conference call that discussed EPA's draft Guidance for P2 Core Measures. The Core Measures were developed by EPA Headquarters for state and local P2 programs that receive funding from EPA's P2 Grant program. The purpose of the measures is to collect consistent national data on P2 outcomes and, more directly, to provided numbers to support the goals listed in EPA's Strategic Plan (i.e., "by 2008, reduce pollution by 76 billion pounds, conserve 360 billion BTUs of energy and 2.7 billion gallons of water, and save \$400 million, from a baseline year of 2003). Interest in the subject is high and work will continue with NEWMOA to brief the states on future developments and to elicit feedback.

*For more information contact:* Robert Guillemin, EPA Region 1-NE (617) 918-1814, guillemin.Robert@epa.gov.

#### Hospitals

EPA Region I-NE has developed a Hospital Assessment Tool Template as part of an OECA grant to collect information from hospitals on environmental performance indicators, waste generation, pollution prevention, and energy/water conservation. Three states (CT, RI and NH) took the template and made it a state specific tool. To conduct the survey, two UNH interns went to 25 hospitals (8-NH, 8-RI and 9-CT) with the state specific tool and collected data to help assess the hospital's environmental performance and potential opportunities. EPA and the States will use the data collected and analyzed by UNH to evaluate hospital mercury programs, to identify sector-wide issues, to develop compliance assistance tools, and to further define healthcare sector activities.

NORTHEAST STATES P2 CALENDAR					
TITLE	SPONSOR	DATE / LOCATION	CONTACT		
Green Home Design & Construction	CT GBC	November 15, 2003, New Britain, CT	860-424-3297		
TUR Planner Continuing Education Conference	TURI	November 18, 2003, Marlborough, MA	978-934-3391		
Deadline for application to participate in EMS Work Group	MATURI	November 21	www.turi.org		
Lead-Free Electronics Supply Chain Meeting	TURI	December 3, 2003, Taunton, MA	978-934-3391		
6 <sup>th</sup> National Environmental Public Health Conference	CDC, NCEH	December 3-5, 2003, Atlanta, GA	770-488-7629		
Best Practices in Asset Management	EPA, NEIWPCC	December 4-5, 2003, Chelmsford, MA	978-323-7929		
Energy Efficient Transformers	NHIOF	December 11, 2003, Nashua, NH	www.NHIOF.org		
TUR Planning for Non-Planners	TURI	December 16, 2003, Marlborough, MA	978-934-3391		
Environmental Compliance Bootcamp	ABS Consulting	January 26-30, 2004, Orlando, FL	301-921-2345		
The Groundwater Pollution & Hydrology Course	Princeton Groundwater, Inc.	February 9-13, 2004, Orlando, FL; February 23-27, 2004, San Francisco, CA	813-964-0900		
EMS Audit Course	TURI	February 10, 2004, Marlborough, MA	978-934-3391		
GLOBE 2004	GLOBE	March 31-April 2, 2004, Vancouver, BC	604-775-7300		
National Environmental Assistance Summit	EPA, NPPR	April 19-22, 2004, Baltimore, MD	202-299-9701		
Impact Assessment for Industrial Development	IAIA	April 26-29, 2004, Vancouver, BC	701-297-7908		
Metal Finishing Supply Chain Forum	TURI	May 20, 2004, Woburn, MA	978-934-3391		
2004 ACEEE Summer Study on Energy Efficiency in Buildings	ACEEE	August 22-27, 2004, Pacific Grove, CA	302-292-3966		

For a more complete listing of upcoming events, visit www.newmoa.org

The final report "Data Collection and Compilation of EPA's 2003 Hospital Assessment Tool" is available at http://www.unh.edu/p2/nhppp/i2003.html.

For more information contact: Janet Bowen, EPA Region 1-NE (617) 918-1795, bowen.janet@epa.gov.

#### Marinas

In September, EPA Region 1-NE posted a regional marina website (http://www.epa.gov/ne/marina/index.html) designed to provide marina owners and managers with environmental compliance and pollution prevention related information. The site includes links to relevant case studies, best management practices, and guidebooks. In addition to viewing resources by topic, visitors can select resources on a state-by-state basis.

For more information contact: Larry Wells, EPA Region 1-NE (617) 918-1836.

#### **Colleges & Universities**

The Environmental Virtual Campus (EVC), conceived by the Massachusetts Institute of Technology (MIT) and EPA Region 1-New England, helps colleges and universities understand how they can achieve compliance through an interactive web site that demonstrates environmental regulatory requirements for a typical research university. Between July 12 and August 18, the site received over 170,000 hits from approximately 2,500 visitors, including visitors from 20 different countries. This product was undertaken by MIT in connection with a settlement of an enforcement action. The site can be visited at http://www.c2e2.org/evc/home.html.

For more information contact: Peggy Bagnoli, EPA Region 1-NE (617) 918-1828, bagnoli.peggy@epa.gov.

#### Environmentally Preferable Purchasing (EPP)

On October 8, EPA Region 1 - New England helped to organize three sessions at the Massachusetts' 9th Annual Buy Recycled and EPP Vendor Fair and Conference in Worcester, MA. The first session, "EPP 101," provided an introduction to environmentally preferable purchasing with an emphasis on cost saving opportunities and critical communication approaches. The second session "Federal Focus on EPP: Purchasing Info and Update" included presentations on EPA's Federal Facilities program, EPP and EMSs, online procurement systems that tabulate purchases of recycled content products, and electronics recycling. The third session, "Best Management Practices: Sustainability in Action," featured success stories highlighted in EPA Region 1-NE's Best Management Catalog for Colleges and Universities. The Vendor Fair featured approximately 100 exhibitors and received over 800 attendees from colleges and universities, hospitals, and state, local and, federal government.

For more information contact: Robert Guillemin, EPA Region 1-NE (617) 918-1814, guillemin.Robert@epa.gov.



#### **Reducing Nitrogen Loadings from Golf Courses**

The U.S. Golf Association, Cornell University, Cornell Cooperative Extension of Suffolk County, Peconic Estuary Program, EPA Region 2, NYS DEC, and the Suffolk County Department of Health Services, are organizing a meeting to discuss the management of nitrogen applications on golf courses on November 13 in Riverhead, New York. The Agencies and organization are focused on Eastern Long Island's golf courses because of concern for the ecological health of the Peconic Estuary and neighboring surface waters. These waters are impaired or threatened due to nitrogen loadings from multiple sources. Working with golf courses is part of a larger pollution prevention effort in the area. The Peconic Estuary Program is also actively working with the municipal, marine, agricultural and residential sectors of Eastern Long Island to achieve an overall reduction in nitrogen loading.

For more information contact: Tristan Gillespie, EPA Region 2 (212) 637-3753, Gillespie.tristan@epa.gov.



#### Guidance on Mercury Product Labeling & Phase-Out

The Interstate Mercury Education and Reduction Clearinghouse (IMERC), a program of NEWMOA, has recently developed and posted guidance on its website (http://www.newmoa.org/prevention/mercury/imerc/) for manufacturers of mercury-added products to help them with compliance with state labeling and phase-out requirements. The states of Maine, Connecticut, Rhode Island, and Vermont have requirements for labeling products that contain intentionally added mercury. The guidance provides a roadmap for companies that need to label their products. In addition, Connecticut, Maine, and Rhode Island have specific mercury product phaseout and collection system plan requirements and the guidance material on the website describes how companies can comply with them.

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

#### National Mercury Reduction Programs Database

The National Mercury Reduction Programs Database is a repository of information on local, state, and federal mercury reduction activities (http://www.newmoa.org/ prevention/mercury/programs/). This resource is designed to allow for information sharing among assistance programs and others interested in what reduction strategies and programs exist and what the results of these programs have been. Visitors to the site can search by state, product, affected groups, or type of program to access information on the various activities going on nationally and to learn about who to contact for more information on these projects.

There are currently over 120 records in the Database with programs from 20 states, 10 local programs, as well

as regional, federal, and international programs. There is an online input form available for federal, state and local program staff to use to add programs to the database. If your program is not already listed, please take a moment to visit the site and add information on your activities to the database. If you would rather provide information on your program and have NEWMOA staff add it to the database, contact Andy Bray at (617) 367-8558 x306, abray@newmoa.org.

NEWMOA is grateful to the Environmental Council of States (ECOS) and the Pollution Prevention Resource Exchange (P2Rx) for their support and assistance with collecting information from programs nationally.

#### P2Rx Topic Hubs

Topic Hubs are web-based guides to peer-reviewed pollution prevention (P2) information and expertise on a particular subject and are designed to provide assistance programs and others with a single point of access to P2-

The National Mercury Reduction Programs Database is a repository of information on local, state, and federal mercury reduction activities.

related information on that subject. The Topic Hub Project is being carried out by the Pollution Prevention Resource Exchange (P2Rx), a consortium of eight regional pollution prevention information centers that work collaboratively to create national P2 resources. NEWMOA is the P2Rx Center for the Northeast states.

The "Topic Hubs" are designed to provide an overview of the issues, process information, P2 options, and the best pollution prevention-related documents (links) for the industrial sector or topic. The Regional P2 Information Centers that make up P2Rx have published 48 Topic Hubs to-date including a Hub on P2 in Hospitality published by the Western Regional Pollution Prevention Network (WRPPN).

To visit any of the Topic Hubs: http://www.newmoa.org/ prevention/topichub/.



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