

FEATURE ARTICLE

Pollution Prevention Successes

There are likely few of us who would not admit that nothing breeds success like success itself. However, what is commonly left out of that simple equation is a recognition that such success is often built on our mistakes. It was John Keats who reminded us, "Don't be discouraged by a failure. It can be a positive experience. Failure is, in a sense, the highway to success." Dwelling on our failures, while instructive does little to improve morale — and truth be told, there is a wealth of success stories to inspire additional success stories.

State and local pollution prevention programs have shown amazing success, particularly in relation their relatively small size and low level of resources. This column is dedicated to presenting some of their accomplishments. NEWMOA asked the state and local programs to briefly describe their most successful achievements during the last two years. Here's their responses.

Connecticut

Hartford Neighborhood Environmental Project

The Connecticut Department of Environmental Protection's (CT DEP) Hartford Neighborhood Environmental Project (HNEP) promotes community pollution prevention education. It is sponsored by EPA through a four-year grant to CT DEP that will continue through the end of 2000. The sectors addressed through HNEP are: residents, small businesses, and institutions. The HNEP is coordinated through the CT DEP Office of Pollution Prevention and provides environmental education funding to community organizations operating in seven of Hartford's poorest neighborhoods. The total amount of funding provided to community groups is \$40,000 per year.

The HNEP addresses pollution prevention for six pollutants identified in the DEP Pollution Prevention Plan for Connecticut (1996). These are ethylene glycol and solvent degreasers; ground-level ozone; household hazardous products; lead; pesticides; and nonpoint source pollution.

In 1997-1999, the HNEP sponsored workshops; internships at the Department for elementary, middle and high school students; and environmental poster and poetry contests.

The Pollution Prevention Office, along with four partner organizations, conducted training sessions on topics critical to urban residents and businesses, such as asthma and air pollution, solid waste facilities, pesticide management, recycling, preventing pollution from household cleaners, and where to go for environmental help. Over 300 residents participated in one or more of the events sponsored by the Project in 1997-1998.

Contents

Feature Article	
Successes	1
Program Updates	
Connecticut	7
Maine	8
Massachusetts	8
New Hampshire	10
New York	11
Rhode Island	13
EPA Region I	15
NE P2 Roundtable	16
P2 Publications	17
Calendar	20

Hartford Landfill Tour & Workshop

Fourteen Hartford neighborhood leaders attended a Saturday morning landfill tour in 1997 along with members of the Connecticut Resource Recovery Authority (CRRA) and DEP staff. Presentations about ash landfill construction and environmental protection preceded the tour. The presentations resulted in a lively question and answer session. The tour of the ash landfill construction site provided participants with a hands-on view of the new ash landfill and helped to communicate highly technical information.

Earth Day Poetry & Poster Contest

In 1998 and 1999 HNEP sponsored an annual contest for 4th, 5th and 6th graders to encourage them to learn about P2. More than 300 children from 7 Hartford schools submitted entries under the 1998 theme "How Can We Take Care of Our Earth?" The 1999 theme was "Clean Air is Healthy Air."

Thirty-six winners of the contest received prizes, including a boat trip on Long Island Sound. The group traveled to the Northeast Utilities (NU) Research Lab in Waterford to learn about power plant operations and their general effects on the marine environment. The Hartford students, along with their teachers, sampled for marine creatures at all stages of development. Activities also included netting shoreline marine life and going out on the Sound on a boat to pull up lobster pots. In addition, the group enjoyed walking on a nature trail that covered an area where the beach develops into woodland. One of the students stated in a thank-you letter to DEP that he enjoyed the trip so much he wants to be a marine scientist when he grows up! The contest winners also took part in an award ceremony at DEP's Hartford Earth Day Celebrations in 1998 and 1999.

Hartford Neighborhood Earth Day Celebrations

1998 and 1999 Earth Day Celebrations provided an opportunity for more than 250 members of the Hartford community to get together with environmental and health professionals to learn more about the environment and P2. Adult workshops focused on mitigating lead paint, turning vacant lots into green spaces, controlling asthma and air pollution, reducing hazardous chemicals in the home, and conserving energy. The children enjoyed special activities, such as a water pollution game, mask making, live animals, and earth stories from a local storyteller.

Interns

Five 9th grade students from Hartford's Sports

Northeast States Pollution Prevention News

Northeast States Pollution Prevention News is published three or four 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 I and the Northeast states.

The NE P2 Roundtable would like to thank the following people for writing and producing this newsletter: John Bearley, Tria Case, Stephanie D'Agostino, Richard Girasole, Pat Gittes, Terri Goldberg, Tom Hersey, Brian Kavanah, Doug Kievit-Kylar, Jim McCaughey, Rick Reibstein, Abby Swaine, Kim Trella, Paul Walsh, Mary Werner. Terri Goldberg managed production of the newsletter.

The NE P2 Roundtable appreciates hearing comments and suggestions on the newsletter from readers. Write NEWMOA at the address on the back cover of the newsletter or call (617) 367-8558 x 302, e-mail: NEPPR@tiac.net.

Please use the form at the back of this issue to request an address change, to add your name to the mailing list, or to request an electronic version of the newsletter. NEWMOA appreciates your cooperation in ensuring that the mailing list is correct.

Science Academy worked an average of two hours each per week assisting DEP staff in the pollution prevention program in 1998. The interns designed posters to encourage reduction of office paper use, and helped with the Hartford Neighborhood Earth Day Celebration by preparing materials for distribution and assisting at the event itself. As part of the internship they learned about the different jobs at DEP and developed a display board about the Department for their school.

CT DEP also hired an intern to assist with research on remediation of a Hartford community garden site that has tested high for lead.

P2 Outreach Program Pilot

The Office of Pollution Prevention staff developed interactive educational activities for 6-11 year old children, which were piloted at a day camp in Bridgeport in the summer of 1998. Staff developed a skit about reducing pollutants in Long Island Sound. DEP provided the skit dialogue, props and background information.

Elementary age children at the Bridgeport day camp performed the skit for their camp mates. The children also played a game where they described pictures from magazines as either good or bad for the environment. Staff expanded upon or further explained the pictures. Both activities were successful, especially the skit. Staff will be further refining the activities for elementary age and older children in the upcoming school year for education events around the state.

P2 Tour of Hartford Neighborhoods

Over 47 people, including representatives of banks, insurance companies, city agencies, and the Capital City Economic Development Authority, participated in a 1998 bus tour of projects that have the potential to improve the quality of life in Hartford. Neighborhood leaders led the participants through seven areas of the city, including those with neighborhood revitalization zones, community gardens, and brownfields. An example of a development that will promote pollution prevention is a housing complex that will utilize geothermal technology for heating and cooling. The tour also facilitated communication among the different participating agencies and groups, and a contact list of the participants was distributed to all who attended.

Community Training on IPM

DEP co-sponsored a workshop with SAND Corporation on Integrated Pest Management (IPM) for 30 residents of a large apartment complex in 1998. The training, which included home management techniques to control rodents and insects, was also attended by a representative of the Hartford Health Department. A follow-up meeting with representatives from the City, the property management company, and the DEP Pesticides Program was held to discuss an IPM plan and recycling at the complex.

Small Business Assistance

In addition to outreach to Hartford residents, HNEP provides direct technical assistance to Hartford's small businesses to achieve environmental compliance and practice pollution prevention. Multi-media compliance inspections have been conducted in a number of facilities considered to have significant potential to pollute. Over 50 facilities, including elementary and secondary schools, multi-family residences, abandoned commercial and industrial buildings, autobody shops, gas station/repair shops, and drycleaners have been inspected by teams of DEP staff, including those from air, water, hazardous waste and pesticides programs.

As a result of the gas station inspections, the Agency determined that Hartford's small auto repair/gas stations were unlikely to meet the December 22, 1998 deadline for underground storage tank regulations unless they received further assistance. To address this problem, DEP held an evening training session on underground storage tank (UST) regulations for Hartford gasoline and auto repair service station owners. The 30 plus attendees received information on the requirements, including installation of corrosion protection on tanks and piping, an approved method of leak detection, overflow protection, and catchment basins at fill-pipes. There have been at least seven requests for site-specific technical assistance subsequent to the meeting. A merchants' group indicated that it plans to meet with legislators to request assistance for businesses to meet the requirements.

Massachusetts

Toxic Chemical Use, Waste by MA Industries Continues Downward Trend

Ten years after the Commonwealth enacted the Toxics Use Reduction Act (TURA) manufacturers statewide have reduced their reliance on toxic chemicals dramatically. Massachusetts is a national leader in demonstrable reductions in toxic chemical use. Data collected under TURA provide clear evidence that the state has made tremendous progress in pollution prevention.

Enacted in 1989, the Toxics Use Reduction Act requires companies to report annually to the MA Department of Environmental Protection (MA DEP) the types and amounts of toxic chemicals they use. They are also required to develop plans for implementing toxics use reduction, and to file summaries of those plans with DEP.

The 1997 TURA Information Release in March 1999 shows that improvements were dramatic between 1990 and 1997. Massachusetts manufacturers decreased their total toxic chemical use by 24 percent, their toxic waste generation by 41 percent, and their toxic releases to the environment by 80 percent. The report uses data that has been adjusted to account for a 32 percent increase in production since 1990, as well as impacts from plant closings and openings.

This year's report highlights the top ten facilities that reported implementing TUR and showed the largest byproduct reductions from 1996 to 1997. These facilities reduced their combined byproduct generation by

7.8 million pounds from 1996 to 1997. Of particular note is the fact that the overall production output of this group of facilities showed an increase over 1996. Thus, these reductions cannot be attributed to decreased production levels.

According to Environmental Affairs Secretary Robert Durand, “With ingenuity and dedication, industry is proving that ‘Made in Massachusetts’ means a high quality, cleaner, greener product. Even as more products are made as the Massachusetts economy grows, there is less use and generation of toxic chemicals than ever before. Industry managers understand that what’s good for the environment, is also good for the bottom line.”

Environmentally Preferable Products (EPP)

A few years ago, the Massachusetts Office of Technical Assistance (MA OTA) was contacted by the Consumer Products Specialty Manufacturers Association (CPSMA) to discuss their concerns that public information relating to household hazardous waste was not scientifically correct. During these meetings, CPSMA mentioned that similar contacts were occurring throughout the country. After the meeting, MA OTA reviewed their household hazardous waste fact sheets and discovered one debatable recommendation. The Agency had mentioned the possibility of using borax as a disinfectant, and although such use is common, it is not listed as a disinfectant under the Federal Insecticide, Fungicide and Rodenticide Act.

This incident inspired OTA to develop scientifically defensible criteria for defining environmentally preferable products (EPP). OTA staff met with the state’s purchasing agency, the Operational Services Division, and representatives from other agencies to formulate a contract specification for EPP janitorial cleaners. The group selected cleaning products to create a useful model for other groups of products, and to help reduce a ubiquitous source of pollution and exposure to harmful substances. OTA set mandatory and desirable criteria, and put them out for review. Now they can be downloaded from www.magnet.state.ma.us/osd/enviro/cleaner.htm by clicking on the Comm-PASS link and then clicking on the Request for Response. OTA presented the criteria at a number of forums where industry had a chance to comment.

The state contract for EPP cleaners is not mandatory – that is, state agencies can still buy other cleaners under other state contracts. On the other hand, any subdivision of the state, (i.e., municipalities) can buy these products at the listed price.

Six vendors have qualified under this system, and preliminary surveys have indicated positive results. A user said the new cleaner (Liquid Sunshine, United Laboratories) worked better than anything he has used before.

The existence of the EPP state contract, which is based on carefully designed criteria that have undergone public, industry and peer review, has given OTA the confidence to promote the listed products without fear of favoritism or sloppy science.

Auto Body Shop Initiative

Last fall, the Massachusetts Joint Auto Body Partnership released its “Crash Course for Compliance and Pollution Prevention,” a plain-language guidance manual for the collision repair industry that established a new model for government assistance efforts. Produced by MA OTA and a team of enforcement agencies, industry representatives, and other interests, the Crash Course manual went beyond just providing helpful instruction and information. It articulated a carefully crafted agreement approved by each of the enforcement agencies involved: if shops can demonstrate a “good faith effort” to act upon the guidance provided in the Crash Course manual and move toward compliance, their effort may be positively reflected in any necessary enforcement action. In other words, a shop, which had not yet achieved complete compliance with the regulations that could show steps it had taken to reach that goal, may be eligible for a reduced penalty or other type of enforcement mitigation.

A series of CRASH Course workshops, led by OTA with the assistance of the Massachusetts Auto Body Association (MABA), the EPA and other project partners, have been held for shops and local officials across the state. Early results from a survey of participating auto body shops indicate that many shops are taking significant steps toward improving compliance and implementing pollution prevention measures prescribed in the Crash Course manual – even though the material has been available for less than a year. Project developers hope that the number of shops making these changes will continue to rise as word of the Crash Course project spreads through the industry.

The “good faith” model provides a method for simplifying rules and incorporating the promotion of pollution prevention into the enforcement process. It is far simpler than rewriting regulations or issuing new policy, as it uses long-established enforcement policies for determining penalties.

Research in Sustainable Technologies

The Toxics Use Reduction Institute's (TURI) affiliation with the University of Massachusetts Lowell's College of Engineering has facilitated collaborations that have advanced the investigation, development and evaluation of sustainable technologies that are environmentally, occupationally and economically sound. In 1997, the Institute expanded its efforts to all five UMass campuses to tap the more basic research capabilities of faculty through a new University Research in Sustainable Technologies Program. This new program has involved more than 40 graduate and undergraduate students and their professors in the departments of chemistry and nuclear, mechanical, industrial and plastics engineering, along with industry partners working on a wide range of projects including development of alternatives to PVC in medical applications, models for energy and resource efficiency, diffusion dialysis and acid recovery in metal working.

Surface Cleaning Laboratory

As the only university-based facility of its kind, TURI's Surface Cleaning Laboratory has assisted over 200 companies in the search for safer, greener alternatives to hazardous materials. The Lab conducts tests for companies that are seeking to replace organic and chlorinated solvents used for cleaning and degreasing. Partially funded graduate students can be provided to help companies complete the scale-up version of their cleaning processes in-house. The Lab also works with vendors to facilitate the development of new and better products for surface cleaning, drying and rinsing. More recently, the Lab's testing and technical support services have been requested by municipalities and non-profit organizations.

New Hampshire

The New Hampshire Pollution Prevention Program's (NHPPP) latest publication is *Planning for Profits...A Guide to Pollution Prevention for New Hampshire's Businesses*. The guide is designed to help companies build an "infrastructure for success" by reducing waste while increasing profits. A pilot test of the guide was conducted at JMD Industries, a small electroplating job shop in Hudson, New Hampshire. JMD used the guide to identify and implement changes to their zinc plating lines. Below is a summary of JMD's experience using the six-step approach to pollution prevention outlined in the planning guide.

Step 1 - Getting Organized

JMD formed a pollution prevention planning team that included employees from different areas of the facility -- plating, packing/inspecting, and wastewater treatment.

Step 2 - Analyzing Processes

The team developed process maps and conducted a walk-through to identify the cause(s) of their quality problem and to identify concerns for the zinc plating lines.

Step 3 - Identifying P2 Alternatives

The team held a brainstorming session to identify alternatives to reduce losses caused by oil contamination. They also identified ways to improve basic operating practices.

Step 4 - Evaluating Alternatives

The team chose to implement three initiatives: 1) use mildly abrasive soap to pre-clean parts covered with the oil; 2) work with their customer to determine the possibility of using a different oil; and 3) improve tracking of chemical additions and bath maintenance activities.

Step 5 - Implementing Projects

The team leader communicated with zinc line operators to evaluate the progress of the pre-cleaning practice. The team also designed a new form for recording chemical additions.

Step 6 - Measuring Progress

The customer changed the type of oil they were using, and this decreased wastes by 15 percent and avoid delays caused by parts requiring rework. JMD saved an estimated \$35,000 annually through reduced chemical usage and improved quality. In addition, JMD received a 1999 EPA Region 1 Environmental Merit Award for their efforts.

The P2 Planning Guide has been a domestic and international success. Overall requests for the guide have topped the 1,000 mark and requests have come from all over the United States, as well as Canada, Argentina, and Pakistan. The NHPPP is working with a NH company that is currently using the guide to evaluate its operations and will be following up with the company to evaluate and document the results.

New York

Multi-Media Pollution Prevention (M2P2) is a comprehensive planning, analytical, and management

approach that protects and enhances New York State's environment and the health and well being of its citizens at lower costs than traditional approaches.

Multi-media (M2) refers to the simultaneous identification and evaluation of all aspects of the "media" (i.e., air, water, land) that compose the physical environment. Pollution Prevention (P2) refers to the steps taken to avoid creating pollution "at the source" to reduce the costs and risks of recycling, treating, controlling, or disposing of waste further down the "waste management hierarchy."

By combining the M2 strategy and analysis with P2 methodologies, M2P2 reduces total management costs and environmental risks by preventing pollution, shifting control up the waste management hierarchy, and minimizing inter-media pollution transfers.

A key feature of the New York State Department of Environmental Conservation's (NYS DEC) M2P2 Program has been the "Integrated Facility Management" program. This effort focuses on a manageable subset of New York State's industrial facilities: the 400+ facilities that generate and release 95 percent of the State's toxic chemicals and hazardous substances (thus the title of the project—the "400/95" Initiative). The goal of this program is to reduce the State's toxic chemical releases to the environment by 50 percent by the year 2000 from a 1990 baseline. Based on a review of the toxic release data for 1997, New York State is well on the way to reaching this goal by 2000.

The Pollution Prevention Unit's mission is to plan, guide, manage, monitor, and coordinate the delivery of support activities, including making available technical expertise and information resources needed to implement Integrated Facility Management and other M2P2 initiatives. The Unit helps facilitate a shift in emphasis from DEC's traditional, command-and-control, media-specific, end-of-the-pipe management mode to one that is more flexible, incentive-based, comprehensive, multi-media, and preventative.

The Integrated Facility Management Initiative involves a team of DEC regional staff from all relevant environmental quality units. They work together to assemble and assess all pertinent information, coordinate media inspections usually at a single point in time, and then comprehensively evaluate each selected industrial facility. This process allows determination of overall facility regulatory compliance, produces opportunities for identifying and implementing P2 improvements, and helps to avoid inadvertent inter-media pollutant transfers.

Approximately 125 M2P2 facilities are currently active in the M2P2 process. Fifty-four environmental management improvements have been proposed by the DEC facility teams, 34 of which are currently in the process of being implemented.

In addition to increasing compliance, the inspections also produce better communication and joint problem solving between the Department and the facilities, which in turn produces more and better P2 initiatives and other environmental improvements.

DEC's M2P2 approach has demonstrated that:

- ! by using teams and prioritizing efforts on the more serious pollution sources and risks, DEC can more efficiently and cost effectively utilize its limited resources;
- ! by interacting with a coordinated team of representatives from all DEC program units, industry can save time and effort;
- ! by increasing technical assistance and voluntary compliance emphasis, a more cooperative joint problem-solving atmosphere is created between DEC and the industry. This fosters better compliance as well as additional and more effective environmental improvements - including P2, which generally can cut costs for industry and improve its community relations;
- ! by reducing the amount of pollution and more effectively managing that which remains, the environment and public health benefit;
- ! by obtaining more services at less cost from DEC; the taxpayers benefit; and
- ! by decreasing industry's non-compliance costs and risks, the economy is strengthened; and resource loss from pollution and waste is reduced.

Vermont

The Vermont Department of Environmental Conservation (VT DEC), Environmental Assistance Division are particularly proud of:

- # a Governor's Award program for Environmental Excellence in Pollution Prevention. Since the program's inception in 1993, 71 businesses, non-profit organizations, individual Vermonters, institutions, and public agencies have been recognized by the Governor for their contribution to environmental excellence using P2.

- # a voluntary, technical assistance and business recognition program, the Vermont Business Environmental Partnership (VBEP), that has increased the practice of prevention and offered public recognition for achievement of comprehensive environmental standards. The program has many success stories in the printing, vehicle service, and lodging sectors. Most notable are the nearly thirty (30) properties that have already been recognized as Green Hotels in the Green Mountain State.
- # a Retired Engineers and Professionals Program (REAP) that brings expertise and a fresh pair of eyes to Vermont facilities desiring a comprehensive assessment of P2 and resource conservation opportunities.
- # a Pollution Prevention Planning law and program that provides planning and on-site technical assistance to Vermont facilities generating more than 2,640 pounds of hazardous waste per year, and those facilities with 10 or more full-time employees that manufacture, process or otherwise use more than 10,000 pounds per year of a toxic substance.
- # a continued and dramatic decline in toxics released to the environment [as reported to the U.S. EPA as part of the Toxics Release Inventory (TRI)]. Vermont TRI reporters have, typically ranked 51st or 52nd nationally in total releases with fewer releases than all but the U.S. protectorates: American Samoa and Guam.
- # a collaborative partnership of technical assistance providers – including the Vermont Department of Economic Development, the Vermont Small Business Development Centers, and the Vermont Manufacturing Extension Center – called the Vermont Environmental Assistance Partnership (VEAP).
- # a Clean State Initiative that stresses the role state government plays in promoting and practicing pollution prevention to its own employees and in its own operations.
- # a mercury initiative that includes product labeling and school mercury clean-outs.
- # a mercury and dioxin challenge/technical assistance program (part of the VBEP) for hospitals and other health care facilities.
- # a collection of pollution prevention/compliance guides for various key sectors in Vermont; including vehicle

service providers, printers, wood furniture finishing, and metal fabrication.

- # a collection of case studies of successful Pollution Prevention and Resource Conservation projects in Vermont, including (in part):
 - ! Elimination of metal cleaning and coating operations at Blodgett Ovens
 - ! UV curable coating at Vermont Tubbs
 - ! Absorbent reduction at Yankee Corps.
 - ! A teflon success story at IBM
 - ! Powder coating at Hubbardton Forge
 - ! Source reduction at Vermont Country Soap
 - ! Environmental excellence at the Sheraton Burlington (Vermont's first Green Hotel in the Green Mountain State)
 - ! Big time hazardous waste reduction for big rigs: Southworth-Milton, Inc.

Program Updates

CONNECTICUT

CONNECTICUT DEP

STAR Training for Voc Tech Schools

Spray Technique Analysis Research (STAR) training for autobody teachers at Voc Tech schools will be attended in August by two Connecticut instructors. The training, offered by the Iowa Waste Reduction Center, is funded by EPA and teaches techniques for minimizing the amount of paint used in autobody work. After completing the training, equipment and materials will be provided to the two instructors' school, Ellis Vocational Technical School in Danielson, to create a model Voc Tech facility at which other Connecticut Voc Tech teachers will be trained. For more information contact: Elise Bennett (860) 424-3297.

Environmentally Preferable Purchasing

A cooperative effort between the CT DEP and the Department of Administrative Services has resulted in the hiring of an Environmentally Preferable Purchasing Coordinator. The objectives of the position are to create an action plan for increasing the state's environmentally preferable purchasing and to establish a tracking system for such purchases.

For further information contact: Kim Trella, CT DEP (860) 424-3297.

MAINE

MAINE DEP

Maine's TUR Law Reauthorized

On May 27, 1999, Governor Angus King signed *"An Act to Encourage Continuous Improvement in Pollution Prevention in Maine"* into law. The law reauthorizes and modifies Maine's Toxics and Hazardous Waste Reduction Law that had been in effect since 1990.

The former law encouraged a 30 percent reduction of toxics used, and mandated a 30 percent reduction in toxics released and hazardous waste generated by 1998. The law was very successful with the following reductions being achieved: 22 percent reduce in toxics used, 53 percent reduction in toxics releases, and 38 percent reduction in hazardous waste.

Under the new law companies will no longer be mandated to make reductions. Instead companies are mandated to set reduction goals and report them to the DEP by July 1, 2000. Companies are further mandated to report their progress in achieving these goals to the DEP in biennial reports in the years 2002, 2004, and 2006. While the law does not require companies to meet their projected goals, the law does require the DEP to make the company's goals and their progress in meeting the goals available to the public through the Internet as well as other means.

For more information contact: Brian Kavanah, ME DEP (207) 287-6188

MASSACHUSETTS

MASSACHUSETTS DEP

Grant to Reduce Mercury in Hospitals

MA DEP's Bureau of Waste Prevention (BWP) has received an EPA Pollution Prevention Incentives for States (PPIS) grant to reduce mercury in hospitals. The project is intended to help hospitals achieve the American Hospitals Association (AHA) and EPA goals of voluntarily eliminating mercury use.

DEP will form a partnership with the Massachusetts Office of Technical Assistance and private partners, such as the MA Hospital Association and the Lowell Center for Sustainable Hospitals at UMASS, Lowell to implement the program.

The project will have three phases: curriculum development, training, and audits. Project team

representatives and healthcare operations experts will work together to develop a training curriculum. This training will cover hospital operations that involve the use of mercury and hazardous materials, reduction techniques and recycling opportunities and finally the economic benefits associated with the reduction and disposal of hazardous medical waste.

The project will include a 2 to 3 day training for 20 program participants from DEP, UMASS Lowell's Sustainable Hospitals program and OTA. Additional training will be performed in which the trainees will conduct an actual environmental audit. This will serve as an example for future audits of hospitals that will be chosen for the project. Approximately 12 small hospitals will be selected to participate in the audit program. One of the criteria for selection will be a hospital's lack of resources to hire an outside contractor for environmental assistance.

Working in teams of two, the trainees will audit each of the participating hospitals, focusing on strategies for reducing and eventually eliminating mercury in the hospital's waste stream and adopting best management practices for toxic and infectious wastes. Follow-up audits will be performed at 50 percent of the hospitals. Case studies will summarize the success of the audits and will be distributed through the DEP web site and hospital newsletters and by participants in the program. Instructional and outreach materials will be made available through flyers, fact sheets, pamphlets, and handbooks. For information contact: Michelle Portman (617) 292-5884.

Environmental Results Program Leads to P2 for Dry Cleaners

Three dry cleaners will install equipment that will reduce the amount of chemicals they use and pollution they emit under terms of three separate consent orders with the Department of Environmental Protection.

Parfait Cleaners of Northbridge, Wonderland Cleaners of Revere, and Royal Cleaners of Worcester are enrolled in a new state-wide project called the Environmental Results Program (ERP). Under ERP, DEP relieves regulated businesses of the need to obtain prescriptive permits, but holds them accountable for their environmental performance. Once a year, they must certify to DEP that they are in compliance with regulatory standards. In return, the agency concentrates on setting strict but achievable environmental standards tailored to each industrial and commercial sector, and doing more inspections and audits to verify that the standards are being met.

According to DEP Deputy Commissioner, Edward Kunce, "This program holds company officials accountable for meeting environmental standards. Before ERP, small companies like these frequently slipped through the cracks because we didn't have enough time or staff to inspect them regularly."

For more information contact: Paul Walsh, MA DEP (617) 556-1011.

MASSACHUSETTS TURI

Industry & Community Grants

TURI has announced the availability of funding for fiscal year 2000 for industry and community projects.

The Cleaner Technology Demonstration Sites and Matching Grants Program provides funding to companies to implement or demonstrate innovative toxics use reduction projects. Under the program, matching grants are awarded for feasibility studies of potential TUR options, pilot testing and validation, and systems and/or management projects. TURI is particularly interested in cleaner technologies in the following areas: plastics (e.g., non-heavy metal pigments or solvent substitutions); environmental managements systems development and implementation; innovative materials accounting and total cost assessment methods; and quality management systems and their effects on toxics use reduction. More than \$470,000 has been awarded to 37 Massachusetts companies for innovative TUR projects since 1993.

Additional project assistance is available to companies through the Institute's InTURN Program, which provides engineering, chemistry, and other students to work on TUR projects directly with companies. While these are generally summer positions, a limited number of longer-term positions will be offered this year for the first time. All interns receive intensive TUR training at the Institute. For more information contact: Chris Ford (978) 934-3142.

The Toxics Use Reduction Networking Program (TURN), now in its fifth year, awards two types of grants to community organizations and local municipal government. Community awareness grants seek to broaden awareness and implementation of toxics use reduction. Municipal integration grants promote understanding and incorporation of TUR into daily functions of municipal departments, offices, or agencies and help embed an infrastructure in municipalities that promotes public health, sustainable industries, and a clean environment. Applicants are encouraged to model and/or

NORTHEAST WASTE MANAGEMENT OFFICIALS' ASSOCIATION

The Northeast Waste Management Officials' Association (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 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 communication and cooperation among member states and between states and EPA, and
- promote the efficient sharing of state and federal program resources.

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 source reduction programs. The program is called the Northeast States Pollution Prevention Roundtable (NE P2 Roundtable). This program involves the following components: (1) NE P2 Roundtable meetings and workgroups; (2) regional P2 information resource center and databases of information; (3) source reduction research and publications; (4) training sessions; and (5) regional policy coordination and development. The NE P2 Roundtable is supported by NEWMOA member states and by grants from the EPA.

build on past TURN projects by networking with former grantees or to develop new ideas or projects. To date, the Institute has funded 33 projects across the state that have resulted in a wealth of educational and instructional products, such as training workshops, roundtables, maps, TUR profiles, videos, surveys, brochures, and curricula.

In addition, TURN projects have encouraged the development of partnerships and collaboration among citizens, government agencies and industry in addressing toxics in the community. For more information contact: Eileen Gunn (978) 934-4343.

TUR Training

TURI will present its 32nd Toxics Use Reduction Planner Training Course this fall in Marlborough. The eight-session course will begin September 14. Continuing education opportunities for certified planners will take place throughout the coming year.

For more information contact: Patricia Gittes, MA
TURI (978) 934-3129.

NEW HAMPSHIRE

NEW HAMPSHIRE DES

NHDES has recently hired Lin Hill as the new NH Pollution Prevention Program (NHPPP) Program Manager. Before Lin came to the NHPPP, she worked in the Office of Pollution Prevention for four years at Ohio EPA. Prior to that she was an environmental consultant in San Francisco, CA. Lin received her undergraduate degree from Tufts University, and masters degree from Indiana University. Lin is jumping in with both feet and DES is happy to have her on board. Lin can be reached at (603) 271-2902 or l_hill@des.state.nh.us.

Mercury Reduction Activities

NHDES, Foundations for Healthy Communities, Concord Hospital, Dartmouth Hitchcock Regional Hospital, WasteCap ReCoN, the New Hampshire Hospital Association, UNH and EPA have partnered to begin work on a project to promote pollution prevention in the healthcare sector. NHPPP intern Mary Caddle is creating a baseline survey to evaluate mercury usage in hospitals. The baseline survey will be piloted at two hospitals that will work with the group to reduce or eliminate their use of mercury-containing products and medical equipment.

A bill to establish a legislative study committee on mercury source reduction and recycling was passed this session by the NH legislature. The study committee will examine methods to reduce/eliminate mercury in products and evaluate such options as labeling, manufacturer take-back programs, and improved identification and handling of mercury-containing products. DES expects that the Agency's P2 staff will play a key role in assisting the committee.

Governor's Award for P2

The 1999 Governor's Awards went to Millipore Corporation of Jaffrey, Concord Hospital, and Dartmouth Hitchcock Medical Center of Lebanon. Other businesses and organizations that received an honorable mention for

their pollution prevention efforts were Benchmark Electronics Inc. of Hudson, Cabletron Systems Inc. of Rochester, Hitchiner Manufacturing Co. Inc. of Milford, Nashua Transit System, R&J Tool Inc. of Laconia, and the Public Works Department in the Town of Londonderry. This was the first year NH has given honorable mention awards. Based on suggestions from NEWMOA and other states in the region, the NHPPP made effective changes to the judging procedures. The judges meet together to review, evaluate and discuss the applications. DES plans to further refine the judging process next year.

EMS Projects

DES's Voluntary EMS Program (sometimes known as the ISO 14000 project) is in full swing. The first set of companies, all located at the Pease International Tradeport, are actively pursuing their EMS implementation efforts. DES training will cover Measuring and Monitoring and Management Review this Fall, which will fully launch the companies. A second set of firms, three Seacoast-area ISO 9000 manufacturers have started up. They are spending the Summer ranking their environmental aspects and impacts.

DES is also participating in the EPA's StarTrack program, which examines the effectiveness and completeness of private-sector audits for regulatory and EMS compliance. EPA and DES personnel are allowed to observe the audits. Most recently, they observed audits at Dexter Corporation's specialty chemical facilities in Seabrook and Londonderry. For more information contact: Bob Minicucci (603) 271-2941, b_minicucci@des.state.nh.us.

Londonderry Eco-Industrial Park

Last December, the Londonderry Eco-Industrial Park (EIP) made the transition from a philosophical exercise into a real world development with the sale of the property to Sustainable Design and Development (SDD), L.L.C. SDD is made up of TFMoran, an engineering and architectural firm, and Andover Consulting Group, Inc., an office park developer.

SDD has actively marketed the Londonderry EIP over the last year and has attracted several prospective tenants one of which, Gulf Medical Supply, has already been accepted as the first associate tenant of the park. Another prospective tenant, AES has received state site approval to construct a 725 megawatt power generation plant. Although they are faced with some "not in my back yard" opposition, they expect to begin construction

as the EIP's "anchor" within a year. Since one of the functions of an eco-industrial park is to share wastes as raw materials, AES's waste products, steam, hot water and cheap energy, make them an attractive facility with which other tenants could work.

SDD is seeking environmentally conscious manufacturers who would like to operate within the Eco-Industrial Park. For more information contact: Justin Bielagus, SDD Director (603) 668-7046, jsb@sustaniablenh.com.

Municipal Garage Outreach

In April, the NHDES and EPA conducted four half-day workshops for municipal garages throughout the state. Workshop topics included: what to expect during an inspection, floor drains, used oil management, pollution prevention and assistance resources. All workshops were well attended, averaging 25-30 participants at each site. DES partnered with the NH Municipal Association to organize the sessions.

For more information contact: Stephanie D'Agostino, NH DES (603) 271-6398, S_dagostino@des.state.nh.us.

NEW YORK

NEW YORK STATE DEC

Lake Champlain Basin Mercury P2 Project

The Department has been part of a collaborative effort of the National Wildlife Federation, the Vermont DEC, and the Vermont State Dental Society in producing the "Environmentally Responsible Dental Office: A Guide to Proper Waste Management in Dental Offices." The guide will be distributed to all 400 dentists in the Lake Champlain Drainage Basin of New York. Additional copies of the dental guide will be available from the Pollution Prevention Unit. A press event was held in Burlington, Vermont on June 7, 1999 announcing the official release of the guide.

National Strategic Goals (SGP) Program - Metal Finishing Sector

NYS staff continue to actively participate in the SGP program and are working on an upcoming Strategic Goals Program meeting scheduled to take place on July 14-15 in Albany. The overall goal of the meeting is to bring together and develop the NYS Performance Ladder and provide a comprehensive unified set of goals and benefits to NYS metal finishers. The P2 Unit is seeking regulatory and technical assistance from other programs within the

Department to assist SGP participating metal finishers in determining whether or not they are currently in compliance with applicable environmental regulations, and to help in determining the framework for SGP tier placement.

Governor's Pollution Prevention Awards

A total of 34 applications have been received this year. The applications are currently undergoing the review process. This process includes: a technical review by applicable Department staff; a review by the Division of Environmental Enforcement to verify their compliance status; and a review by a committee in charge of nominating the candidates. The committee is made up a panel of judges comprising members from business, environmental groups, academia, and state agencies. The committee recommends finalist to the DEC Commissioner, who will present them to the Governor for approval. The Committee is scheduled to meet during the week of July 19 to nominate the candidates.

Publications

The Pollution Prevention poster contest and some of the small business technical assistance documents have been converted to the proper formats and are now available on the DEC's Internet site— www.dec.state.ny.us/website/ppu. This includes scanned images of last year's poster contest winners.

Conference & Workshop

The 12th Annual New York State P2 Conference will be held in Rochester on August 24 - 26, 1999. To register for the conference contact: Dottie O'Hare (518) 457-2553.

A Pollution Prevention Workshop was held for Automobile Recyclers and Dismantlers on June 9 at the Region 1- SUNY Campus offices. There were a total of 45 people that attended.

TRI Facility & State Agency Reporting

New York State's Toxic Release Inventory (TRI) 1997 Report is now available. The data showed a 5 percent reduction from 1996 and a 68 percent reduction from 1988, despite the addition of more than 300 chemicals to the TRI list in that time.

PPU Changes

The Pollution Prevention Unit has undergone several staffing changes. Mary Werner is now the Acting

Director of the Unit. The Program Development and Support Section has been renamed the Environmental Assistance and Outreach Section (EA&OS). Robert McCarty has joined the Unit to work on the State Agency Environmental Audit. Dennis Lucia is the new Chief of the Project Management and Coordination Section (PM&CS). Tanya Lahr replaced Doug Ferguson in PM&CS. Jim Romeyn took a promotion out of the Unit.

For more information contact: Dennis Lucia, NYS DEC (518) 485-5857, djlucia@gw.dec.state.ny.us.

NEW YORK EMPIRE STATE DEVELOPMENT

The Empire State Development Small Business Environmental Ombudsman (ESD SBEO) is continuing its work with dry cleaners, who are using non-PERC- based cleaning technologies. Under a grant from the EPA the ESD SBEO has partnered with the New York City Department of Environmental Protection, the Environmental Business Association of NYS, Inc., and other associations to conduct outreach and provide funding to help dry cleaners transition non-PERC Dry cleaning. ESD will be awarding grants to individual dry cleaners, who have committed to adopting a PERC alternative. The businesses that receive these grants will be studied for a year after the grants are awarded to evaluate the alternatives from both the environmental and textile perspectives.

For more information contact: Tria Case, NYS ESD (212) 803-2280.

ERIE COUNTY OFFICE OF P2

Mercury P2 Education

A primary objective of Erie County's Mercury Pollution Prevention Education Program is to eliminate mercury from the solid waste stream. Outreach efforts target community and business education and aim to increase public awareness on the dangers of mercury, the environmental impact of release, proper disposal of common household items that contain mercury, and alternative products. The resource materials developed and utilized to support these efforts include: informative brochures, a poster exhibit, a mercury product display, slide presentations for several grade levels, a database of mercury recyclers, and a website on Erie County's Internet homepage.

Opportunities available to citizens and businesses consist primarily of thermometer exchanges, County-

sponsored Household Hazardous Waste collections and Conditionally Exempt Small Quantity Generator disposal arrangements. Two Household Hazardous Waste collections were held this past Spring and a total of 128 mercury products and 25 pounds of elemental mercury were collected for recycling and thereby diverted from the solid waste stream. In addition, the Erie County dental community participated in a bulk elemental mercury collection during which 89 pounds of mercury were collected. Future plans entail continued community outreach, development of a Dental Waste Management Program and potentially, a new program aimed toward eliminating mercury from healthcare facilities. For more information contact: Mary Rossi (716) 858-7583, rossim@cdbg.co.erie.ny.us or visit www.erie.gov.

Construction & Demolition Debris Recycling

The County continues to assist municipalities and businesses in recycling C&D debris. Examples of recent projects include:

- < Rite Aid/Benderson Development: Through the Erie County C&D Debris Recycling Project, the County worked with the developer and demolition contractor to find markets for concrete, wood, and steel. This project yielded over 300 tons of debris recycled.
- < University of Buffalo/ADF Construction: In August 1988, ADF Construction began construction on a student housing complex for the University of Buffalo. Working with both the University and the Contractor, the County suggested ways for reuse of materials on site and the recycling of drywall, lumber, and masonry. A total of 267 tons of debris was recycled, and the Contractor reported a savings in disposal costs of approximately \$3000.
- < City of Buffalo Housing Demolition Project: County staff have been working with the City of Buffalo in tracking wastes from dilapidated housing demolitions. Materials recovered include high salvage material (i.e., fireplaces, woodwork, metal), wood, concrete, and soil. Although quantifying the amount is difficult, ECOPP received figures from Modern Disposal C&D Processing for 2000 tons.

For more information contact: Susan C. Attridge (716) 858-6339, attridge@cdbg.co.erie.ny.us.

Risk Management Planning

Through an extensive outreach program and direct technical assistance, the Erie County PROactive TECHnical Team (PROTECT) helped over 50 local companies develop and submit Risk Management Plans

to meet the requirements of Section 112r of the Federal Clean Air Act. Risk Management Plans, which were submitted to the EPA to meet the June 21,1999 deadline, are currently being electronically compiled. Based upon the risk management plans compiled by the EPA's contractor as of July 10,1999, approximately 14 percent (24 of 179) of the completed plans from Region II were submitted by Erie County companies. The EPA anticipates having all of the submitted plans compiled in their system by mid-August 1999.

The types of assistance requested by Erie County companies was primarily focused on three specific areas associated with the RMP requirements: determination of the general requirement to comply; calculation of the distance to endpoints associated with worst case and alternative case scenarios, and mapping of these scenarios to determine the population and other receptors affected. The resource center, established with funds made available through a grant from the EPA, proved to be a valuable tool for both program staff and company representatives.

Although the June 21,1999 deadline has passed, the window of opportunity for companies to comply remains open through the EPA's Self Auditing policy provided a company submits their plan before the EPA initiates a specific enforcement action against them. Within the next few months, Project PROTECT efforts will focus on informing companies of this opportunity and helping additional facilities accomplish compliance. Once the EPA begins the enforcement effort associated with the RMP requirement, Erie County will be visiting companies to review their plans and assess potential P2 strategies to help reduce the potential risk these facilities pose within their local community.

For more information contact: Tom Hersey, ECOPP (716) 858-7674, hersey@cdbg.co.erie.ny.us.

Rhode Island

NARRAGANSETT BAY COMMISSION

Educational Activities

Education of industrial users has been a major focus of efforts by NBC's P2 Program. Unlike other states such as Massachusetts, Rhode Island has no licensing or certification program for Industrial Wastewater Operators. Existing educational programs were limited to some theoretically-based college courses in wastewater treatment and contract training seminars that often addressed regulatory issues in a general manner non-

specific to Rhode Island requirements. A practical and cost effective source of training was not available.

Based on the experiences of NBC and RI DEM regulatory divisions, manufacturing operator error has often been found to be the major cause of many wastewater discharge violations and hazardous material releases. In many instances, small manufacturing companies have invested significant amounts of money on wastewater pretreatment and pollution control equipment and instrumentation while giving little attention to proper operator training.

In order to address these training needs, the NBC applied for and received a \$60,000 matching funds grant award from EPA in September of 1996 to establish an Industrial Wastewater and Pollution Prevention Training course. The course curriculum, developed as part of this project, includes training in up-to-date wastewater treatment, environmental regulations, and pollution prevention/source reduction techniques and methodologies, as well as:

- ! Wastewater Mathematics
- ! General Chemistry
- ! Fluid Flow Measurement
- ! Environmental Regulations
- ! Industrial Operations Overview
- ! Wastewater Treatment Operations
- ! pH control
- ! Cyanide Destruction
- ! Metals Removal
- ! Pollution Prevention Overview
- ! Ion Exchange
- ! Water Use Reduction
- ! Membrane Separation

The NBC Industrial Wastewater and Pollution Prevention Training Program is offered through the Community College of Rhode Island as a three credit 45 hour college course. The course has been offered five times: Fall 1996, Spring 1997, Spring 1998 and Fall 1998, training a total of more than 60 students. The next offering of this course is currently scheduled for the fall 1999 semester.

A more industry specific educational effort put forth by the NBC involves the local metal finishing industry. More than 135 metal finishing companies operate within the NBC servicing district and these combined operations discharge large volumes of industrial wastewater to the 2 NBC treatment plants and generate a variety of solid and hazardous wastes. NBC and RI DEM regulatory staff devote a tremendous amount of time and effort

monitoring and regulating this industrial sector. In turn, these companies have put forth great effort and have gone to great expense to control waste generation and to become educated in pollution prevention and source reduction practices.

In December of 1996, the Surface Finishing Industry Council published the "Metal Finishing Guidance Manual" as part of the National Common Sense Initiative. This extensive document, written by Eastern Research Group with assistance by GZA GeoEnvironmental, Inc., focuses on pollution prevention compliance, and safety procedures in the metal finishing industry.

NBC proposed to organize a series of one-day seminars, based on this manual, to help the local metal finishing industry to make the most use of this vital information. In October 1998, NBC received a \$25,000 matching fund grant award from EPA to develop and present these seminars. The sessions have taken place at centrally located facilities within Rhode Island and are offered at times that are most convenient for the industrial community to attend. As part of this seminar series, each attendee may purchase a copy of the Metal Finishing Guidance Manual. Grant funds have been used to reduce the Manual's overall cost from \$300 to \$70. The seminars are free of charge.

The first of these seminars was offered on January 13, 1999 on the topic of Hazardous Waste Management. More than 60 representatives from local metal finishing companies attended. A second seminar on Emergency Planning and Community Right to Know regulations was offered on February 25, 1999. A third was held on June 13, 1999 on Toxic Release Inventory Reporting and a fourth seminar was held on June 17, 1999 on Industrial Wastewater Discharges. Two additional seminars will be held during the fall and winter 1999.

Environmental Merit Awards

In order to publicly acknowledge select companies for their outstanding environmental efforts and accomplishments, NBC established a Pollution Prevention Merit Awards program. Each year since 1995, the NBC has presented Environmental Merit Awards to companies that have demonstrated extraordinary efforts that go above and beyond standard NBC industrial discharge compliance requirements. Starting in 1996, the NBC also began to recognize Significant Industrial Users that achieve perfect compliance with all NBC requirements for that calendar year.

As of May 1999, NBC has recognized 22 companies with Environmental Merit Awards for their efforts to go above and beyond regulatory requirements, and 34 companies have been recognized for their perfect compliance records. Recipients of NBC Environmental Merit and Perfect Compliance awards are honored at an NBC sponsored ceremony in the spring of each year, receive a certificate of achievement, and are recognized in NBC publications and in two statewide newspapers. Beginning in 1996, Environmental Merit Award winners were presented with a Certification Seal, supplied by NBC, so that their accomplishments could be recognized by the public, customers, and industry. The seal can be used to display and promote a company's achievements in company brochures, company letterhead, advertisements, and other promotional publications. The feed-back received from industry and the general public in response to this awards program has been positive and has contributed greatly to improving communications between all environmental stake-holders throughout NBC's servicing district.

On June 22, 1999, the NBC awarded three companies Pollution Prevention Merit awards and eight companies perfect compliance awards for their accomplishments during calendar year 1998. Schofield Printing, U.S. Generating Company, and Handy and Harman all received NBC's 1998 Pollution Prevention Merit Awards. Perfect compliance award recipients for 1998 include A. Harrison Company, Eagle Plating, REXAM DSI, Olin Microelectronics, Allied Metal Products, Induplate, Inc., Spencer Lanting Company Inc., and Union Wadding Company.

For more information contact: James McCaughey, NBC (401) 222-6680 x352.

RHODE ISLAND DEM

Evaporator Technology Policy Established for RI Electroplaters & Metal Finishers

Rhode Island electroplaters and metal finishers now have a formal policy to guide them on the acceptable use of evaporator technology. The policy, hammered out by the DEM in conjunction with the NBC, the U.S. EPA, the University of Rhode Island and the Rhode Island Council of Electroplaters, identifies scenarios where the use of evaporator technology would be appropriate and in compliance with air, waste, and water discharge requirements.

The electroplating and metal finishing industries generate large amounts of wastewater and find that

evaporators are useful for concentrating process chemicals for material recovery/reuse and for reducing the volume of wastewater. However, regulatory requirements differ depending upon the type of evaporator used, the point of its application during the manufacturing process, and the materials to be processed. Hence, the evaporator policy was created, in a spirit of cooperation between government and industry, to clarify permit issues and to remove the ambiguity associated with use and misuse of evaporator technologies.

With this evaporator technology policy, DEM also seeks to encourage the use of P2 practices. According to DEM Director Jan H. Reitsma, "Some of the advantages of pollution prevention include savings in costs for input material, waste treatment and disposal. Other advantages can include reduced regulatory burdens, reduced permit fees, and improved environmental compliance."

An evaporator that has the potential to emit hazardous pollutants into the air or that is used for "end-of-pipe" treatment in reducing hazardous wastes will be subject to a different set of standards than one which receives nonhazardous wastewater for material recovery and reuse with a process. According to Reitsma, "because evaporator technologies can be used in a variety of applications, policy guidelines have been established, with valuable input from the electroplating and metal finishing industries, in order to determine their appropriate and lawful usage."

For further information contact: DEM's Office of Technical and Customer Assistance (401) 222-6822.

EPA REGION I-New England

Auto Repair

Mary Dever and Peggy Bagnoli continue to provide on-site compliance and P2 assistance at auto repair and auto body shops, to publish the newsletter Details, to present at sessions of MA OTA's CRASH courses, and to conduct outreach to auto shop students at voc tech schools. On-site assistance is targeted to urban and watershed areas with the help of GIS mapping, and in collaboration with local officials. OMB has approved EPA's survey to measure the effectiveness of the outreach in this sector.

Voc Tech Schools

Lee MacMichael, Joan Jouzaitis and Peggy Bagnoli have been holding "Is Your School in Compliance?"

conferences, appearing at a wide variety of educators' events, conducting on-site assessments, and making presentations to classes and assemblies on a range of compliance and P2 topics.

Metal Finishing

Mark Mahoney and Linda Darveau have been signing up metal finishers for the CSI Strategic Goals Program by marketing it via workshops and on-site visits in a wide variety of locations, with help from state and university P2 assistance programs. Workshops have covered solvent use, degreaser standards, hazardous waste identification, and EMSs.

Wood Finishing

As of June, Janet Bowen and Abby Swaine have received about 400 requests for the wood coating pollution prevention video "Making P2 Work for You: Opportunities for Wood Coaters." The video also received an Aegis (video industry) prize, thanks to Dan Porter's excellent production. Evaluation forms received thus far are positive. Ample copies are still available free.

Municipal DPWs

Chris Jendras, Jack Healey and state P2 assistance and regulatory staff conducted eight workshops in VT and four workshops in NH for municipal highway garages on compliance and pollution prevention topics. Attendance was healthy and feedback was positive. Follow-up will be assessed via surveys.

Jack Healey, Maine DEP and NEIWPC recently conducted two energy assessments at wastewater treatment plants in Maine. This pilot project will promote energy efficiency and alternative sources of energy.

Jack Healey and Joe Canzano conducted a workshop on controlling development and treatment burden via Sewer Use Ordinances in Orono, Maine.

Mercury Challenge

All New England hospitals received an invitation to apply for recognition as a Partner in the Mercury Challenge EPA Partners for Change program. Applications are due by October 1, 1999. Janet Bowen has been speaking at many state- and industry-sponsored events about mercury reduction/recycling techniques and opportunities, and about the mercury challenge program.

Miscellaneous

Joan Jouzaitis is following her successful March conference on compliance and P2 for colleges and universities with a July 28-29 conference in Kittery, ME.

A&P2 Personnel Updates

David Webster has left the Assistance and P2 Office to head the Massachusetts Unit in EPA Region I's Office of Ecosystem Protection. Greg Roscoe, formerly unit chief for air enforcement in the region, stepped in to co-manage A&P2 with Tom D'Avanzo.

David Webster and John Moskal helped deliver a P2 seminar for the Ministries of the Environment and of Industry in Budapest, Hungary in March. EPA also has an ongoing P2 relationship with Brazil's environmental agency, CETESB.

Larry Wells recently left private business to join Dwight Peavey in managing EPA outreach to small business.

Solid Waste

Christine Bonica has been helping put on Pay-As-You-Throw workshops in MA. A project to develop a software package to set rates for Pay As You Throw programs recently received funding as a National Competition Grant under the Climate Change Action Plan.

Energy Efficiency/Climate Change

Norman Willard is furnishing Energy Star Purchasing Tool Kits to summer interns with the cities of Lynn, Newton, Montpelier, Cambridge, and Medford to help them prepare greenhouse gas emissions inventories and climate action plans under the Cities for Climate Protection program. This work is funded by a foundation that would like to see other New England cities participate.

Norman Willard has been conducting extensive outreach to groups potentially affected by global warming and climate change, like fly fishermen's associations, businesses and local governments on green power purchase and alternative energy sources.

EMS/Star Track

Entities that have conducted StarTrack compliance and/or EMS audits recently with EPA oversight include the U.S. Postal Service (Hartford), Dexter Corp (NH), and Unilever HPC (CT).

Project XL

A variety of projects are still under consideration or development, including the International Paper Best

Management Practices and Narrangansett Bay Commission pretreatment projects. The New England University Labs project has been approved and is underway.

Innovative Technology

Maggie Theroux recently joined Carol Kilbride in the CEIT program. The six NE States, the New England Governors' Conference (NEG), NEWMOA and EPA Region I-NE have agreed to participate in a Memorandum of Agreement for Interstate Cooperation to Accelerate the Adoption and Deployment of Pollution Prevention Technologies. At their June 24 meeting, the group heard several technical presentations on candidate technologies and chose vacuum vapor degreasing as the first technology to analyze.

For more information contact: Abby Swaine, EPA Region I-New England (617) 918-1841.

NORTHEAST STATES P2 ROUNDTABLE

P2 for Pressure Sensitive Tapes & Labels Manufacturing

NEWMOA collaborated with the Northeast States for Coordinated Air Use Management (NESCAUM) on the publication of *Pressure Sensitive Tapes and Labels, the Clean Air Act Amendments of 1990 and Pollution Prevention Opportunities*. This manual describes the upcoming National Emissions Standard for Hazardous Air Pollutants (NESHAP) for paper coating operations, including pressure sensitive tapes and labels manufacturing. This NESHAP is scheduled for promulgation in November 2000.

The manual provides clear guidance to the industry on the proposed paper coatings NESHAP and how the manufacturers can use pollution prevention to meet or exceed the standard. The manual also describes the pressure sensitive tapes and labels manufacturing process. The audience for the manual is the industry, state permit writers and state assistance providers. The manual was developed through close collaboration by NEWMOA/NESCAUM with the Northeast states air and P2 programs as well as industry experts.

Auto Body Brochure

In close collaboration with small business assistance and P2 programs in the Northeast, NEWMOA has published "The Finishing Line, Q & A on Low

Compliant Coatings for Auto Body Shops.” This short pamphlet describes the correct way for body shops to use the new complaint coatings. The Northeast states will be distributing thousands of these pamphlets to shops throughout the region.

Compliance Assistance Center Survey Results

Under a contract from EPA, NEWMOA conducted a survey of state and local technical assistance providers to assess how effectively three of the EPA Office of Enforcement and Compliance Assurance (OECA) compliance assistance centers has served state and local technical assistance programs. The project focused on the Coordinating Committee for Auto Repair (CCAR), the National Metal Finishing Resource Center (NMFRC) and the Printers' National Environmental Assistance Center (PNEAC). NEWMOA has published the results of this survey in a new report, “ Technical Assistance Provider Assessment of Three OECA Compliance Assistance Centers.”

Launching NEWMOA’s Website– Fall 1999

NEWMOA will be launching its website in the Fall of 1999. The Website will include a searchable database of the project specific information and a database of state and local environmental assistance programs in the region. In addition, the website will link with individual state websites and other useful information. NEWMOA is planning to have the website operational by the beginning of the new fiscal year – October 1, 1999. Check it out at that time– the URL will be www.newmoa.org.

For more information contact: Terri Goldberg, NEWMOA (617) 367-8558 x302.

P2 PUBLICATIONS

NEWMOA has a part time librarian, John Bearley on staff to help address requests for information on a wide variety of waste and pollution prevention questions. He has access to numerous databases and other information sources and is masterful at searching the Internet for relevant material. John can also facilitate access to the extensive library of P2 materials available at the NEWMOA office. He compiled the following list of new P2 documents, which are part of NEWMOA’s P2 Resource Center. If readers would like some assistance with answering questions, tracking down information or searching the web, contact John (617) 367-8558 x305.

New Resources at EPA’s Pollution Prevention Information Clearinghouse (PPIC)

PPIC documents can be ordered through the PPIC Online Order Form or by contacting PPIC, U.S. Environmental Protection Agency (Mailcode: 7407); 401 M Street, SW (7407); Washington, DC 20460; Reference and Referral: (202) 260-1023; Fax Line: (202) 260-4656; E-mail Address: ppic@epa.gov. The following EPA documents and fact sheets are available at no cost.

Private Sector Pioneers: How Companies are Incorporating Environmentally Preferable Purchasing

EPA/742/R-99/001 (48pp) June 1999. This report highlights the economic and environmental success experienced by 19 major corporations because of their efforts to buy green.

Industrial Ecology Fact Sheet

EPA/744/F-99/001(2pp) May 1999. The garment and textile care industry consists of a web of producers and users. This fact sheet discusses how this relationship affects investment of labor, technology, and intellectual resources.

Design for the Environment: EPA and the Navy: A Pollution Prevention Partnership

EPA/744/B-99/001 (8pp) April 1999. This document consists of two case studies of companies that are suppliers to Electric Boat, the U. S. Navy's Virginia Class Submarine builder. The case studies depict how the companies reduced cost and waste generation by implementing pollution prevention measures in their operations.

Printed Wiring Board Case Study #9: Flexible Simulation Modeling of PWB Costs

EPA/744/F-99/004 (4pp) May 1999. This case study describes the validation of a flexible model designed to simulate costs of using different technologies for the making holes conductive step of PWB manufacturing (e.g., direct metallization processes.) The model takes into account environmental costs, such as waste generation and treatment and water and energy use, as well as traditional costs, such as capital expenditures, labor and materials.

Environmental Management Systems for Printers: It's a Bottom Line Benefit

EPA/744/V-99/001 (video) January 1999. This video documents the experiences of two screen printing companies that developed EMSs. Economic and environmental benefits are highlighted.

List of Major Federal Regulations and Standards Affecting Petroleum Dry Cleaners: Fact Sheet

EPA/744/F-99/005 (4pp) May 1999. This document serves as a guide to EPA and OSHA regulations and standards affecting petroleum dry cleaners. It also provides a listing of EPA and OSHA officials by geographic region who can be contacted for further information.

Wetcleaning Directory

EPA/744/B-99/002 (16pp) May 1999. The directory briefly describes the process of wet cleaning and summarizes EPA's involvement in the garment and textile care industry. It also lists establishments throughout the United States that offer wet cleaning services. Web Site: <http://www.epa.gov/opptintr/dfe/garment/wcdir/wetclean.htm>.

Garment & Textile Care Case Study: Liquid Carbon Dioxide Surfactant System for Garment Care

EPA/744/F-99/002 (8pp) May 1999. This case study provides information on the cost, performance, environmental impact, and human health and safety impact of the Micare (TM) clothes cleaning technology and process. Web Site: <http://www.epa.gov/opptintr/dfe/garment/lcds/micell.htm>.

Other New Documents

Lessons Learned from Four Years of Household Hazardous Waste Collections: 1995-1998

Feb. 1999; Androscoggin Valley Council of Governments (AVCOG). Provides a quick and detailed account of the household hazardous waste collections conducted for the two Maine cities of Lewiston and Auburn and 24 surrounding towns. The book contains many helpful hints for municipalities interested in setting up similar programs as well as a sample request for proposal. AVCOG (207) 738-9186; <http://www.eddmaine.org/~avcog/>.

The Environmentally Responsible Dental Office: A Guide to Proper Waste Management in Dental Offices

June 1999; Northeast Natural Resources Center of the National Wildlife Federal and the Vermont Dental Society. A guide for dentists on environmental management and waste reduction. NWF (802) 229-0650.

Guide for Measuring Compliance Assistance Outcomes

EPA/300/B-99/002 (110pp) March 1999. A document from the Office of Enforcement and Compliance to help measure the impact of compliance assistance projects and activities on the regulated community. Web Site: <http://www.epa.gov/ncepihom/orderpub.html>.

The Evolution of Hazardous Waste Programs: Lessons from Eight Countries

(102 pp) June 1999, by Katherine N. Probst and Thomas C. Beierle; Resources for the Future. The report examines the experiences of four developed countries (e.g., Germany, Denmark, Canada, and the U.S.) and four developing countries (e.g., Malaysia, Hong Kong, Thailand, and Indonesia) to explore what it takes to improve the way hazardous wastes are managed and what role public sector financing plays in treatment and disposal facilities. Web Site: http://www.rff.org/news/releases/evol_hwprog.htm.

Accidents Waiting to Happen: Liability Policy and Toxic Pollution Releases

(27 pp) March 1999, by Anna Alberni and David Austin; Resources for the Future. Proponents of environmental policies based on liability assert that strict liability imposed on the polluter will induce firms to handle hazardous wastes properly and to avoid disposing them into the environment. Economic theory and a few well publicized cases, however, suggest that a number of factors may dilute the incentives posed by strict liability. Web Site: http://www.rff.org/disc_papers/PDF_files/9929.pdf.

Extended Product Responsibility as Environmental Policy: An Economic Evaluation

(14 pp) January 1999, by Karen Palmer and Margaret Walls; Resources for the Future. In this final paper produced by this project, the authors discuss alternative incentive based policies that are consistent with the objectives of Extended Product and Producer Responsibility. Web Site: http://www.rff.org/proj_summaries/99files/palmer_extended_product_responsibility.htm.

Servicizing: The Quiet Transition to Extended Product Responsibility

(109 pp) May 1999, by Allen White; Tellus Institute. This study focuses on the environmental implications of an emerging class of product-based services, with emphasis on the business-to-business markets. Product-based services include the familiar – warranties, maintenance agreements – as well as the less familiar – chemical management services, mobility services, furnishings management. Web Site: <http://www.tellus.org/servicizing.PDF>.

Environmental Improvement Through Business Incentives

(39 pp) March 1999; Global Environmental Management Initiative. Discusses a number of techniques that the government could use to encourage companies that are regulated to go beyond compliance. Incentives may also

provide a way to tackle environmental problems that do not lend themselves to traditional regulatory approaches. Web Site: <http://www.gemi.org>.

Measurement and Pollution Prevention for Programs: An Overview of Methods and Listing of Resources

(14 pp) February 1999; Pacific Northwest Pollution Prevention Resource Center. An online document that provides information about tools and resources available to measure the effectiveness of P2 efforts. Web Site: <http://www.pprc.org/pprc/pubs/topics/measure.html>.

Making Pollution Prevention Work for You: Opportunities for Wood Coaters

(video) May 1999, by EPA Region I; (617) 918-1795 or (888) 372-7341. Through interviews with real people – managers and operators who coat wood products, vendors who sell equipment and coatings, and other experts – viewers learn about new and better coatings, application equipment, application techniques, and waste management practices.

Pollution Prevention Integration: A Training Curriculum for Environmental Agency Staff

(130 pp) 1999; Toxics Use Reduction Institute; Lowell, MA; (978) 934-3275. TURI has developed instructor's manuals and participant materials for workshops on the electroplating and surface finishing, surface coatings, and garment cleaning sectors; P2 in enforcement; P2 in policy and regulation development; multi-media team building; P2 on the internet; and multimedia cross training.

KDHE State-wide Mercury Collection Program: Project Completion Report

(50 pp) October 1998; Kansas Department of Health & Environment; Topeka, KS; (785)296-8025. During a 60-day collection program, elemental mercury and mercury-containing devices were collected from homes, schools, city, county and state agencies. Statewide, county participation was 87 percent. Approximately 1880 pounds of elemental mercury was collected, consolidated, and prepared for disposal.

Fundamentals & Methods of Sustainable Design

(28pp) December 1998; National Pollution Prevention Center. The NPPC has added this publication to its Sustainable Architecture collection. Analysis of a building's phases of construction ("pre-building," "building," and "post-building") are used to explore the concepts of Economy of Resources, Life Cycle Design, and Humane Design. Web Site: <http://www.umich.edu/~nppcpub/resources/compendia/architecture.html>.

The Effects of ISO 14001 Environmental Management Systems on the Environmental and Economic Performance of Organizations, Project Summary I

March 27, 1999; U.S. EPA and the Multi-State Working Group. A review of the implementation of EMS in many kinds of organizations across multiple states and environmental conditions. Contact John Villani (919) 962-2789, john_villani@unc.edu.

NORTHEAST STATES P2 CALENDAR

Title	Sponsor	Date/Location	Contact
Is Your School in Compliance, Achieving & Going Beyond Compliance with Environmental Regulations in Academic Settings	EPA Region I-NE	July 28-29, 1999, Kittery, ME	(617) 918-1846
P2 Partnerships for the Millenium: Government, Community, Agricultural & Industrial	GLRPPR	August 11-12, 1999, Traverse City, MI	(217) 244-6061
How Will Environmental Initiatives Affect Economic Development in the New Millenium?	Mohawk Valley Environmental Information Exchange	August 11, 1999, New York Mills, NY	(315) 793-8050
Celebrating Innovations & Accomplishments– 12 th Annual New York State P2 Conference	NYS DEC	August 24-26, 1999, Rochester, NY	(518) 457-2553
Source Emission & Ambient Air Monitoring of Mercury	U.S. EPA	September 13-14, 1999, Bloomington, MN	(412) 741-5462
Pollution Prevention Week 1999	NPPR	September 20-26, 1999	(202) 466-7272
9 th Southern States Annual Environmental Conference & Exhibition	MISSTAP	September 21-23, 1999, Biloxi, MS	(601) 325-8068
Coating '99	Goyer Management International	September 21-23, 1999, Dallas, TX	(513) 624-9988
Producing & Using Wood 1999, How to Increase Yield, Reduce Waste & Recover Value from the Wood Resource	Univ. of Tennessee	October 12-13, 1999, Knoxville, TN	(423) 974-3018
Sustainable Use of National Resources– Cooperative Planning & Actions	EEE Network	November 10-13, 1999, Tampere, Finland	(358) 3-264-7401
America Recycles Day	America Recycles	October 15 - November 15, 1999	In MA call (617) 338-0244
Accelerating Tomorrow's Technologies	NIST	November 15-17, 1999, San Jose, CA	(800) 287-3863
1999 Annual Fall Conference	NPPR	November 17-19, 1999, Santa Fe, NM	(202) 466-7272
EnviroExpo 2000	EnviroExpo	May 9-11, 2000, World Trade Center, Boston	(617) 489-2302

NEWMOA'S RECENT EDUCATIONAL RESOURCES

- C Pressure Sensitive Tapes & Labels: The Clean Air Act Amendments of 1990 & Pollution Prevention Opportunities, 1999, \$10.*
- C The Finishing Line, Q & A, Low Compliant Coatings for Auto Body Shops, 1999 (free).*
- C Technical Assistance Provider Assessment of Three OECA Compliance Assistance Centers, 1999, \$10.*
- C RCRA Compliance for Metal Finishing Facilities: A Slide Show, 1999. 20 minutes.*
- C A First Place Finish: An Environmental Guide for New Hampshire Wood Finishers, 1998, \$15 (free to New Hampshire businesses).*
- C Pollution Prevention Progress in the Northeast States, 1998, \$20.*
- C Improving Your Competitive Position: Strategic and Financial Assessment of Pollution Prevention Investments, Training Manual, 3rd Edition, 1998, \$15 (\$7.50 for nonprofit & government agencies).*
- C Waste Oil Regulations: A Quick Guide for Auto Repair Shops, 1998 (free).*
- C A Checklist for Auto Repair Shops (A self-audit tool for regulatory compliance), 1998 (free).*
- C Northeast States & Eastern Canadian Provinces Mercury Study, A Framework for Action, 1998, \$50.*
- C Pollution Prevention in Metal Painting & Coating Operations, A Manual for Technical Assistance Providers, 1998, \$30 (\$15 for non-profit & government agencies).*
- C Pollution Prevention in the Primary Metals Industry: A Manual for Technical Assistance Providers, 1998, \$10 (\$5 for non-profit & government agencies).*
- C Recommendations for a National P2 Information Network, 1998, \$15 (\$7.50 for non-profit & government agencies)*
- C Wood Furniture: The Clean Air Act & Pollution Prevention Opportunities, 1997, \$40 (\$20 for non-profits & government agencies).*
- C Pollution Prevention for the Metal Finishing Industry: A Guide for Technical Assistance Programs, 1997, \$30.*
- C Pollution Prevention for the Printing Industry: A Guide Technical Assistance Programs, 1997, \$30.*
- C Guide to Accessing Pollution Prevention Information Electronically, 1997, \$15.00 (\$7.50 for non-profits & government agencies).*
- C High-Solid Topcoats and HVLP Spray Guns: Ethan Allen Case Study, 1997, \$2.00.*
- C Ultraviolet Radiation Cured Coatings & Aqueous-Based Coatings, 1997, \$2.00.*
- C Achieving Pollution Prevention in the Printed Wire Board Manufacturing Industry, 1997, \$5.00.*
- C A P2 & Lending Case: National Chromium Company, Renewed Profitability Through Pollution Prevention, 1996, \$2.00.*
- C A P2 & Lending Case: Hubbardton Forge, Immediate Environmental & Efficiency Returns, 1996, \$2.00.*
- C P2 & Lending Report, 1996, \$2.50.*
- C Survey on Integration of P2 into State Regulatory Activities, 1996, Free.*
- C Northeast States P2 Roundtable: A Directory of Participating Programs, 1998, \$10 (\$5 for nonprofit & government agencies; free to NEWMOA member states).*
- C Pollution Prevention and Profitability, A Primer for Lenders, 1996, Free.*
- C P2 Successes, A Compendium of Case Studies from the Northeast States, 1993, \$30 (\$15 for nonprofit & government agencies).*

Northeast States Pollution Prevention News

____ I would like to receive the *Northeast States P2 News* via e-mail. I've included my e-mail address below.

____ Please add my name to the *Northeast States Pollution Prevention News* mailing list.

____ Please remove my name from the mailing list.

____ Please change my address (send us your old mailing label and list the new address below).

Name _____

Company/Agency/Organization _____

Address _____

City _____ State _____ ZIP _____

E-mail address (please print clearly) _____

Please return this form to: NEWMOA, 129 Portland Street, 6th Floor, Boston, MA 02114; fax: (617) 367-0449; e-mail: NEPPR@TIAC.NET.

Northeast States Pollution Prevention News

#####

Northeast Waste Management Officials' Association (NEWMOA)

129 Portland Street, 6th floor

Boston, MA 02114

Non-Profit Organization US Postage PAID Boston, MA Permit No. 50276
