

**FEATURE ARTICLE**

**P2 & Compliance Assistance  
Priorities**

The Northeast state and local environmental programs have made a major commitment to business compliance and P2 assistance over the past several years. There are numerous innovative programs underway that have achieved considerable success in assisting business to comply with complex regulations and implement P2 projects. These programs have provided onsite assistance, conferences and workshops, phone assistance, newsletters, case studies, fact sheets and reports, and various partnership projects. EPA Regions 1 and 2 have also established aggressive assistance programs in the past year and have targeted various business sectors to improve environmental compliance.

The Northeast States P2 Roundtable has facilitated many meetings and discussions concerning issues involving assistance to small business in the region. The upcoming meeting in January will provide another opportunity to discuss opportunities for sharing information on assistance program activities and for improving coordination between the state and local programs and EPA.

The following sections provide some detailed examples of state assistance efforts (presented in reverse alphabetical order) in the region as well as several projects underway at NEWMOA. The EPA Regions 1 and 2 articles at the end of the newsletter present detailed descriptions of the sector-based assistance activities underway in those agencies. For more information on any of the activities described in this Feature, see the contact listed in the state specific articles.

**Vermont**

Vermont has few large industries compared to other states. There are no clearly predominant industry types

in the state. As such, the focus of P2 outreach and assistance has usually been on small businesses, both manufacturers and in the service sector. With a facility planning law that affects users of toxics and large and small quantity generators of all industrial categories (about 185 facilities) and a statutory mandate to provide assistance to planning facilities, the focus of outreach and assistance has been broad. Assistance is also provided to facilities below planning thresholds.

The Environmental Assistance Division has initiated a business recognition and certification program (Vermont Business Environmental Partnership). As part of this program, any business that enlists in the program is required to have periodic waste reduction assessments as well as agreeing to participate in P2, both of which can be made available through the Division. This program has focused initially on printers and vehicle service and repair facilities and may in the future be opened to other sectors that are yet to be determined.

Another tool that the Division plans to use is industry or sector-specific newsletters or periodic bulletins on P2. This can be an effective method of outreach.

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The following sectors have been targeted for outreach this year:

- Vehicle service and repair - VT Business Environmental Partnership; on-site P2 assessments by retired engineers program; sector-specific bulletin; workshops; compliance assistance guide;
- Wood finishing - workshops; sector-specific bulletin;
- Printing - VT Business Environmental Partnership; on-site assessments; sector-specific bulletin; compliance assistance guide;
- Travel and lodging (hotels, motels) - workshop; VT Business Environmental Partnership; on-site P2 assessments;
- Metal Fabricating/Machine Shops - workshop; sector-specific bulletin;
- Thermoplastics Manufacturers - technical assistance in use of post-consumer recycled resins through EPA Jobs Through Recycling Grant; and
- Building/Construction contractors - focus on construction and demolition waste; sector-specific bulletin; workshop.

### **New York**

The Pollution Prevention Unit at NYS DEC is in the process of identifying P2 technical assistance outreach needs for New York State's fiscal year 97-98, which begins April 1, 1997. The Unit will be finishing out fiscal year 96-97 with four printers' workshops in the New York City area and Long Island, and conducting two workshops on P2 for local government and small business in central and northern New York State. By the time the program conducts the NYC and Long Island workshops in February, they will have finalized two documents that have been developed specifically for small printers (see DEC section below). DEC is considering holding more printers workshops next year as well as continuing with the local government and small business workshop series.

DEC is planning to focus workshop efforts in 97-98 on vehicle maintenance and dry cleaners. These two areas were selected based on surveys that DEC conducted at previous workshops. In conjunction with conducting these workshops, DEC will be developing environmental self audit and multimedia assessment/ P2 guidance manuals for these two industry sectors.

Another area that DEC is getting into, in conjunction with the New York State Center for Hazardous Waste Management, is conducting workshops for college and university staff on waste reduction on campuses. They

are also looking at opportunities to conduct another solvents exposition at a down state location. The one they held last summer in Buffalo was successful, and they have had many requests to conduct additional events of this nature.

### **New Hampshire**

NHPPP staff plans to continue to participate in the ongoing CLEAN-P2 Project (Compliance Leadership through Environmental Assessment and Negotiation - Pollution Prevention), which focuses on providing multi-media compliance and P2 assistance under a regulatory relief package.

Through a new PPIS Grant, P2 staff are piloting an assistance targeting approach that focuses on borderline facilities (those facilities just above or below the regulatory threshold for hazardous waste generation, and/or air emissions). This project is particularly applicable to NH, given that it does not have a mandatory P2 or toxics use reduction planning law. Any small business meeting the definition of a "borderline" facility would be eligible. Facilities that choose to participate in the project will receive on-site P2 and compliance assistance. The first phase of the project has involved selecting criteria that define borderline, and restructuring existing databases so that they can be used to effectively select those facilities that have the greatest potential to benefit from this approach.

The next phase will focus on identifying the universe of facilities and conducting outreach to those facilities. In addition, P2 staff will be undertaking a project to develop, market, test and distribute a user-friendly P2 Planning Guide targeted at small businesses. The guide will be multi-media in nature, and will specifically address such items as the RCRA requirement for certifying that generators have a waste minimization plan/program in place. Businesses will also be able to use this guide, as well as environmental consultants and other-third party auditors.

### **Massachusetts**

The Massachusetts Office of Technical Assistance (OTA) core efforts in 1997 will focus on helping businesses to integrate P2 and TUR principles into all aspects of business decisions, from day-to-day purchasing and maintenance programs to long-term strategic and operations plans. Over the years, many companies have reaped tremendous savings and competitive advantages by incorporating P2 into their

overall operational philosophy after being introduced to the concept by OTA.

As part of the outreach efforts in this area, OTA will sponsor two major conferences, both of which are targeting a cross-section of industry sectors. In February, "Alternatives to Hazardous Air Pollutants," will discuss alternatives to solvent use in the coating, printing, plastics, electronics industries and for any other company who uses HAPs. In March, OTA will again hold a successful conference first held in June 1996 titled "Regulations, Incentives, and the ISOs: Making the Connections." This conference features presentations by businesses, consultants and government officials on how developing a toxics use reduction plan as required by the state's Toxics Use Reduction Act accomplishes much of the same legwork required for certification under either ISO 9000 or 14001.

In addition, OTA will begin to publicize and distribute simple software programs designed to help companies track chemical inventories and to help coaters calculate VOC emissions for P2 and compliance purposes.

#### **Connecticut Technical Assistance Program**

The metal finishing and metalworking industrial sectors continue to be targeted for technical assistance by ConnTAP staff. ConnTAP recently kicked-off a pilot project with the Connecticut DEP that offers combined technical and regulatory on-site assistance to metal finishers. ConnTAP's Site Visit Program has targeted wastewater dischargers as part of its National Estuary Grant efforts.

#### **Northeast P2 Roundtable**

In collaboration with state and local assistance programs and others, the NE P2 Roundtable has several industry-based projects underway this year. These focus on:

- Printers: using the internet and CD ROM to reach printers in the region with P2 and compliance information;
- Auto Repair: Developing written materials for auto repair facilities in environmental justice areas and collaborating with local groups on pilot assistance projects.
- Wood Furniture: Developing a manual on compliance with EPA's MACT standard using P2.
- Metal Finishing: Developing a comprehensive manual on P2 in metal finishing for technical assistance and

regulatory staff; and developing a slide show on using P2 to correct common RCRA violations at metal finishers.

- Metal Coating: Developing a comprehensive manual on P2 for metal coating operations for technical assistance and regulatory audience.
- Pharmaceuticals: Developing a comprehensive manual on EPA's MACT standard, using case studies to illustrate P2 opportunities for compliance.
- Paper/Soft Plastics/Foil Coatings: Developing a comprehensive manual on P2 for paper and soft plastics coatings operations and opportunities for compliance with impending MACT standards.
- Printed Wire Board Manufacturing: Publishing a report on P2 and compliance issues, holding a meeting to discuss issues, and making recommendations to EPA.

## **CONNECTICUT**

### **CONNECTICUT DEP**

#### **Model Vehicle Maintenance Facility**

The CT DEP, US EPA and US Postal Service partnered to host an Open House at the Postal Service's Hartford Vehicle Maintenance Facility on October 30, 1996. Over 150 people attended the opening as the Postal Service showcased its award-winning facility and USPS staff was on hand to explain how they saved money and reduced waste with innovative product, process and equipment changes.

The USPS Hartford Vehicle Maintenance Facility was selected by DEP and EPA as a participant in the Environmental Leadership Program -- New England (ELP) and was recently a recipient of the 1996 Governor's Environment/2000 award for government.

The USPS Environmental Compliance Model Vehicle Maintenance Facility continues to test cost-effective, practical ways to both comply with the law and protect the environment. Some of the progress that the USPS has made includes: saving money and reducing waste with specific product, process and equipment changes; reducing its generation of hazardous waste by 99 percent in less than 5 years; reducing its use of paints by 46 percent and VOC emissions by 71 percent; reducing its chemical inventory by 62 percent over 3 years; and eliminating the use of hazardous brake cleaning and used parts solvents.

## THE 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 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 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) a clearinghouse 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 U.S. EPA.

The USPS will continue to work with DEP and EPA on additional mentoring activities. A special workshop will be held at the facility for Hartford neighborhood garages. In addition, DEP will be utilizing the wealth of information gained from the development of USPS's model vehicle maintenance facility to achieve its goal of becoming a model P2 agency. For more information contact: Judy Prill (860) 424-3694.

### P2 Plan Unveiled

Assistant Commissioner David Leff presented the DEP Pollution Prevention Plan to the public at the Department's annual Environment-2000 conference held in October and at the 11th conference of the CT Association of Metal Finishers. The Plan targets 11

substances for voluntary source reduction by business and industry, state agencies and the public. Among the substances are the chemicals and products used in metal finishing. For more information contact: Connie Mendolia (860) 424-3243.

### Alternatives to Disposal Conference Planned

A conference is planned for April 1997 for municipal executives, public works officials and employees, schools public works and custodial officials and staff, boards of education and the public. The day will feature a keynote speaker from a municipality that has incorporated environmental stewardship into many of its operations. The day will be filled with practical workshops on a variety of topics including hard-to-handle materials (like fluorescent bulbs), fine-tuning recycling programs, illegal dumping clean-up, P2 in municipal chemical management and pay-by-bag collection programs. For more information contact: Kim Trella (860) 424-2078.

### Conference for Korean Dry Cleaners Association

The Department is co-sponsoring an environmental conference for almost 200 members of the Korean American Dry Cleaners Association of Connecticut. The seminar will cover environmental regulations, inspections and P2 opportunities. The date for the conference is Sunday, March 2, 1997.

For more information contact: Mary Sherwin, CT DEP (860) 424-3297.

## CONNTAP

### Business P2 Roundtable

The fourth meeting of the Connecticut Business Pollution Prevention Roundtable (BPPR) was held in November. The meeting included a fascinating tour of the Frito-Lay plant in Dayville, CT, a presentation by Jennifer Hill, the Executive Director of the New England Business Environmental Network (NBEN), and concluded with a BPPR member discussion of the groups goals and objectives for the next six months. The next BPPR meeting will be held in late January or early February.

### P2 Conference

The 11th Annual Conference on Pollution Prevention was held in October. It featured an introduction by DEP

## **GET NE P2 NEWS THROUGH E-MAIL!!**

Save paper! Prevent waste! The NE P2 Roundtable is now making *NE P2 News* available to subscribers through e-mail. If you would like us to send you the newsletter via e-mail in the future, please complete the box at the end of this issue by indicating that you prefer the e-mail format and send us your e-mail address. Thanks!!

Assistant Commissioner David Leff and topics including environmental legislative initiatives, P2 case studies from Connecticut industry, as well as presentation of the Environment 2000 awards. The conference was attended by more than 200 people.

### **ConnTAP Quarterly Newsletter**

The Fall 1996 issue of the ConnTAP Quarterly was published in October. The cover story presented a Site Visit Focus on a manufacturer that made significant reductions in wastewater, coolant, and sludge discharges. Also in the newsletter are articles concerning: the Eastern European delegation visit to ConnTAP; a manufacturers VOC reduction efforts; an interview with Brenda Whalen, president of the Connecticut Association of Metal Finishers (CAMF); and a Technology Bulletin on metal recovery through polymer filtration.

**For more information contact:** Bob Brown, ConnTAP (860) 241-0777.

## **MASSACHUSETTS**

### **MASSACHUSETTS OTA FOR TUR**

#### **Common Sense Initiative**

Rick Reibstein, Assistant Director of OTA is continuing his role as chairman of a workgroup called "Overcoming Barriers to P2 and Recycling," as part of the national CSI subcommittee for the electronics industry. The subcommittee is taking the lead on a national conference set for February 25 and 26 in Washington on Electronic Product Recovery and Recycling (EPR2) that will kickoff the establishment of the EPR2 Roundtable. In addition, the CSI committee

sponsored pilot collections of electronic waste last fall in Somerville, MA and Binghamton, NY and is looking at the economics and regulations concerning recycling of cathode ray tubes from televisions and computers.

George Frantz is continuing to participate as a member of the national CSI subcommittee for the printing industry. Work groups on Public Participation and Flexible Permitting have recently begun efforts to merge their work products with the goal of finding ways to improve environmental protection and community participation in permitting, while making the permitting process simpler and more effective for printers across the country.

#### **Achusnet Rubber Co. Gives TURA Credit**

Achusnet Rubber Co. of New Bedford became the first company in the Commonwealth to receive certification under ISO 14001, making it the only company in the world as of January 1997 to have received certification for both ISO 9001 and 14001 as well as QS 9000. At a ceremony in December celebrating its ISO 14001 certification, EH&S Director Jack Bailey publicly credited the TURA program and work with OTA as laying the groundwork of the firm's certification efforts. An OTA case study of Achusnet's successes will be published this winter.

#### **EDI Workshops**

OTA held two workshops in the last quarter of 1996 titled "Computers and Competitiveness: Business Opportunities through Electronic Data Interchange." Presented in conjunction with the Electronic Commerce Resource Center of Scranton, PA, these workshops explained new federal regulations requiring government contractors to transact all communications about bids and contracts electronically and included a brief demonstration on how to find P2 information on the internet.

#### **Western Workshop**

Approximately 100 people attended an OTA workshop in Holyoke in October called "Cleaner Communities: A Workshop for Businesses and Municipal Officials." Highlights included Jim Fleming of the Holyoke POTW using video technology to visually demonstrate how toxic pollution kills the microorganisms necessary for processing sewage sludge. The agenda featured presentations on P2 techniques for both industrial and non-industrial sources.

### **Wood Furniture Manufacturers' Teleconference**

For the fourth time, OTA played a key role in helping Massachusetts manufacturers to participate in a national teleconference. OTA staff made arrangements for and provided staff at several downlink sites in September for EPA's nationwide teleconference on new MACT standards for wood furniture manufacturing. The Massachusetts Manufacturing Partnership co-sponsored the presentation in southeastern MA.

### **Developing New P2 Technologies**

The MA Strategic Envirotechnology Partnership (STEP) is interested in providing support to companies developing new P2 technologies and is now accepting proposals. STEP is an innovative effort to promote the growth of new environmental and energy efficient technologies in MA through the resources of the STEP partners (EOEA, Dept. of Economic Development, and U-Mass system). Companies developing innovative envirotechnologies receive technical, business and regulatory assistance in commercializing a new technology. This year, STEP has targeted solicitations for technologies that meet specific priorities of the TUR program. Of particular interest are new plating technologies, improved plating chemistries, and technologies for integral recycling in the metal finishing industry; technologies that reduce the use of toxics and the generation of hazardous waste in the manufacture of chemicals and plastics; and options assessment and design for the environment tools, especially tools that integrate water conservation, toxic use reduction and energy savings into the design and development of products and processes. For more information contact: John Raschko (617) 727-3260 ext. 698.

### **Ongoing Projects**

OTA staff is continuing work on the following:

- **P2 Internship Program:** OTA is collaborating with the University of Massachusetts Dartmouth (UMD), Cape Cod Community College (CCCC), and the Mass Maritime Academy (MMA) to place interns that will work on P2 or environmental projects in manufacturing facilities in southeastern Massachusetts. In October, OTA and TURI led a TUR and environmental regulations orientation training for 23 students at the three schools. The students were awarded a certificate for completing the six-hour course. As of the end of 1996, three interns had been placed at companies, and three more were scheduled to begin work by the end of

January. Projects the interns are working on include: developing a database of regulated chemicals and regulated programs that a TURA-reporting company is subject to; developing a lock out-tag out program; and documenting reduction in VOC emissions as a result of input substitutions performed at the facility.

- **MWRA Mercury Workgroup:** This cooperative effort among the MA Water Resources Authority, OTA, hospitals and industry to examine sources of mercury discharges and opportunities for source reduction is nearing completion of Phase II. A product from this effort will be a guidance manual for how to set up an effective mercury management program that will include information on material substitution, best practices and resources for assistance. Scott Fortier and Joe Paluzzi of the Metro Team have played key roles in both the writing of the manual and development of the resource database.
- **The Massachusetts Printers' Project (MP2)** in conjunction with DEP, the Printing Industries of New England (PINE) and EPA Region 1: Discussions are occurring about how the MP2 might be converted to required standards under the state's new Environmental Results Program. Most of the approaches pioneered in MP2 (self-certification for compliance, adoption of standard BMPs) are being considered for inclusion, along with some from the EPA's CSI Printers' Project.

### **New Case Studies**

During the last quarter of 1996, OTA published the following case studies:

- **Conversion to UV Curing Reaps Benefits for Fit To Print --** A small screen printer in Weymouth switched to UV curing and inks and, as a direct result, eliminated a persistent compliance problem, expanded its markets, and hired five additional staff.
- **M/A-COM Eliminated Ozone Depleting Substances --** The Lowell manufacturer of printed circuit boards and microwaves developed a comprehensive P2 program that resulted in elimination of ozone depleting substances and several other chemicals.
- **New Coating Technologies Provide Big Payoffs for Kidde-Fenwal, Inc. --** By installing state-of-the-art coating technologies recommended by OTA, Kidde-Fenwal achieved major reductions in air emissions and hazardous wastes and cut an entire day out of its production cycle, earning a return on its capital investment in less than a year.

## P2 PRINT ON LINE

The NE P2 Roundtable announces the availability of P2PRINT. P2PRINT is an electronic mailing list for printing professional in the northeast interested in reducing or eliminating the use of hazardous chemicals in printing. The goal of P2PRINT is to help printers find answers to questions about environmental issues related to printing. P2PRINT subscribers include printers and other professional who work with the industry, including assistance organizations, trade associations, industry suppliers and regulators. P2PRINT is maintained by NEWMOA under a grant from the U.S. EPA Environmental Technology Initiative. There is no charge to join P2PRINT. Anyone can subscribe by sending an e-mail message to: [p2print-request@great-lakes.net](mailto:p2print-request@great-lakes.net). For more information contact: Maureen Hart, NEWMOA (617) 367-8558.

### Additional Upcoming Events

OTA staff is preparing for:

- Two workshops on best methods for reducing cooking grease discharges from restaurants into municipal sewage treatment systems in Central Massachusetts in March. Co-sponsored by POTWs, these workshops follow a successful, similar workshop held in Newburyport in the fall. Participants included municipal health board agents, plumbing inspectors, restaurant owners and managers, and POTW operators from other communities.

**For more information contact:** Cynthia Barakatt, MA  
OTA (617) 727-3620 x666,  
[Cbarakatt\\_EOEA@state.ma.us](mailto:Cbarakatt_EOEA@state.ma.us).

## MASSACHUSETTS TURI

### Cleaner Technology Demo. Sites & Matching Grants

TURI has combined its Industry Matching Grants and Cleaner Technology Demonstration Sites programs. The goal of the combined program is to provide companies with the opportunity to test and demonstrate new cleaner technologies as well as to showcase their accomplishments. This program provides an opportunity for individuals to visit facilities that are using and developing cleaner alternatives to traditional practices and to talk with environmental managers and personnel

about quality, performance, environment, economics, design for environment, and other considerations. The fiscal year 1997 Massachusetts manufacturing facilities and their projects are:

- Leach & Garner Company, General Findings Division, North Attleboro, "Ammonia Reduction for Heat Treat Furnace Atmospheres";
- Lockheed Martin Defense Systems, Pittsfield, "Design for Environment (DfE) Workshops";
- Ocean Spray Cranberries, Inc., Middleboro, "Elimination of Cooling Tower Chemical Additives";
- Parlex Corporation, Methuen, "Innovations in Toxics Use Reduction in Printed Wiring Board Manufacture";
- Tri-Star Technologies Company, Inc., Methuen, "Cupric Chloride Etch Regeneration".

Each facility will host at least one site visit or workshop that will be scheduled between April and June 1997. For more information contact: Jodie Siegel (508) 934-3275.

### Surface Cleaning Laboratory

The Institute's research and testing laboratory evaluates the effectiveness of different cleaning chemistries and equipment on a variety of substrates and soils for Massachusetts industry. In addition, the Institute offers workshops, lab tours and off-site cleaning demonstrations.

A half day hands-on workshop recently sponsored by NEWMOA was attended by representatives from many Northeast states. In response to suggestions from past workshop participants, a more in-depth full day workshop is currently being developed. Two new fact sheets have also been published, one on general surface cleaning and one on the use of HCFCs in cleaning. For more information contact: Carol LeBlanc (508) 934-3249 or the lab's web site <http://www.cleaning.org>.

### TUR Science Advisory Board

At the March, April and May meetings, the Board discussed a petition to delist butyl benzyl phthalate from the TUR Toxic or Hazardous Substance List. The Board recommended delisting in the absence of science to prove that butyl benzyl phthalate is estrogenic despite emerging science that suggests that this potential exists. From a policy perspective, TURI questioned whether the absence of knowledge is a sufficient basis to support a delisting in this case. The TUR Administrative Council reviewed the recommendation and concluded that butyl benzyl phthalate should remain on the list at this time.

In June, the Board accepted the following regarding a petition to delist ethyl acetate: "In accordance with the

SAB Guidelines, the Board does not recommend delisting of ethyl acetate based primarily on its potential for acute toxicity to workers."

In August, the Board voted unanimously to recommend delisting acetic acid at concentrations of 12 percent or less. This concentration is representative of vinegar and other food products containing acetic acid. The recommendations for ethyl acetate and acetic acid are being reviewed by the TUR Administrative Council.

At the December meeting, the Board recommended not to delist sodium hypochlorite. A petition to delist potassium hydroxide was withdrawn, and the Board is currently considering a petition to delist acetone. Subsequently, a petition to delist zinc oxide will be considered by the Board.

The Board meets on the first Wednesday of every month from 3:30 to 5:00 pm at 100 Cambridge St. in Boston. The meetings are public, and interested parties are encouraged to attend. For more information contact: Karen Thomas (508) 934-3143; thomask@woods.uml.edu.

## **P2 Homework Problems for Engineering Curriculum**

Introducing engineers of the future to the concepts, techniques and benefits of P2 is a critical element in a strategy to promote environmental protection. While whole courses in P2 at the undergraduate and graduate level are extremely valuable, they do not reach the majority of engineering students or faculty. Incorporating P2 into core courses in engineering disciplines is essential.

Through a collaborative effort, TURI and engineering faculty from the UMASS Lowell, University of Vermont, the University of New Hampshire, and Dartmouth College developed a book of quantitative homework problems for engineering subjects that illustrate P2. These homework problems can be incorporated into almost all major engineering disciplines, including chemical engineering, civil/environmental engineering, mechanical and materials processing engineering and industrial engineering. The problem book has been made available to colleges and universities throughout New England.

This effort was supported by a \$22,300 grant from the Pollution Prevention Consortium of New England Universities through the Northeast Environmental Security Training and Education Alliance. To order a copy, contact: Monica Becker (508) 934-3297, beckermo@woods.uml.edu.

## **Education & Training**

The eleven toxics use reduction networking grants that were awarded for fiscal year 1997 are currently underway. To date, TURI has held public events for six of the grantees to announce their projects. They include the Boston Police Department, Lawrence Grassroots Initiative, John Snow Institute for Health Studies, Northampton Board of Health, Green Decade of Newton, and Friends of Massachusetts Fire District 14 in Northboro. Slated for public events during January and February are Massachusetts Alliance for Portuguese Speakers, Massachusetts Coalition for Occupational Safety and Health, South Cove Community Health Center, Springfield LEPC and the Center for Ecological Technology. The grants are designed to raise awareness of toxics use reduction and the Massachusetts Toxics Use Reduction Program at the local level. For more information contact: Beverly Johnson (508) 934-3275.

## **Outreach**

TURI's Technology Transfer Center (TTC) has acquired close to 400 new titles in the last four months including those listed below. These materials may be read in the library or photocopied for research purposes. For more information contact: John Bearley (508) 934-3136.

New books of particular interest:

*Guides to Surface Cleaning Processes. ASM International*, 1996, including: Choosing a Cleaning Process; Guide to Vapor Degreasing and Solvent Cold Cleaning; Guide to Mechanical Cleaning Systems;

Guide to Pickling and Descaling, and Molten Salt Bath Cleaning; Guide to Acid, Alkaline, Emulsion, and Ultrasonic Cleaning.

*Technology, Law and the Working Environment: Revised Edition*. Nicholas A. Ashford and Charles C. Caldart. Island Press, 1996.

*Environmentally Conscious Design and Manufacturing: Recent Advances*. Mo Shahinpoor and Jeff Weinrach, editors. Proceedings of the Fourth International Congress, July 23-25, 1996, Cleveland, Ohio. ECM Press, 1996.

*ISO 14000: Questions & Answers*; Third Edition. Caroline Hemenway and Mary McKiel, editors. CEEM Information Services, 1997.

*The Earthscan Reader in Business and the Environment*. Richard Welford and Richard Starkey, editors. Earthscan Publications Ltd., 1996.

*Engineers' Guide to Cleaner Production Technologies.*  
Paul M. Randall, editor. Technomic Publishing, 1996.

New articles of particular interest:

"Beyond Greening: Strategies for a Sustainable World".  
Stuart Hart. *Harvard Business Review*.  
January-February 1997, pp. 66-76.

"Growth Through Global Sustainability: An Interview  
with Monsanto's CEO, Robert B. Shapiro". Joan  
Magretta. *Harvard Business Review*. January-February  
1997, pp. 78-88.

### Reports

TURI published nine reports in the fall and winter of  
1996. The reports, listed below, are available free by  
contacting the TTC (508) 934-3392.

#28 Supercritical Fluids As Substitutes for Dry Cleaning  
Solvents: Evaluation of Enzyme Activity for Stain  
Removal.

#29 Closed Loop Aqueous Cleaning

#30 Measuring Progress in Toxics use Reduction and  
P2: Massachusetts Toxics Use Reduction Program

#31 Toxics Use Reduction Through Process  
Improvement, Substitution & Integral Recycling,  
Cranston Print Works

#32 Nitric Acid Recovery Using Diffusion Dialysis,  
Danaher Tool Group

#33 Closed Loop Aqueous Cleaning of Mechanical  
Parts, Lockheed Martin Defense Systems

#34 Electron Beam Curing of Polymers in Coating  
Processes, Metalized Products

#36 N-Methyl Pyrrolidone: Chemical Profile

**For more information contact:** TURI's main telephone  
number, (508) 934-3275.

### MASSACHUSETTS DEP

MA DEP is in the process of changing its  
relationship with the regulated community from  
"command and control" to environmental performance  
through government/industry partnerships, such as the  
Environmental Results Project (ERP). The program is  
designed to get government out of the business of telling  
companies how to achieve governmental standards by  
replacing thousands of conventional permits with  
facility-wide performance based self-certification. This  
new approach allows DEP to regulate and educate more  
small and mid-sized facilities that up until now may  
never have entered DEP's regulated community. The  
time and resources used to write permits can now be

shifted toward improvement of compliance and  
enforcement, creating a level playing field for the  
regulated community and encouraging more  
environmental protection. ERP requires that senior  
management certify regulatory compliance. This  
increases environmental awareness and accountability.  
ERP is also a multi-media approach that designates  
applicable standards to specific industry sectors as  
opposed to "end of pipe" individual permits.

After a successful demonstration project, DEP has  
begun the rollout of two industry sectors, dry cleaners  
and photoprocessing. These were chosen because their  
industrial processes are relatively simple, almost all  
facilities in each group employ the same or similar  
processes and each has an active trade organization eager  
to work with DEP to improve compliance. In each of  
these sectors, clear standards that apply to all applicable  
facilities will be substituted for the present standards.  
These standards will be equivalent to those imposed on  
individual facilities or processes through permits. DEP  
is also working with industry representatives to provide  
easy-to-read translations of industry regulations as well  
as guidance materials that provide clear explanations of  
environmental requirements and P2. The particular  
format and style to be used will be based on the specific  
information needs and learning styles of the targeted  
industrial sector. For example, the workbook for dry  
cleaners will be translated into Korean because of the  
large number of Korean-owned dry cleaners.

ERP is a vehicle to improve environmental  
performance and promote P2. Based on self-  
certification, ERP will provide clear industry-wide  
standards and user friendly guidance that will empower  
MA companies to find the most cost-effective methods  
of compliance and P2.

**For more information contact:** Bill Panos, MA DEP  
(617) 574-6820.

## NEW HAMPSHIRE

### NEW HAMPSHIRE DES

#### Workshops

A one-day P2 Consultant's Exchange Workshop, the  
first of its kind in NH and perhaps in New England,  
provided assistance to the Environmental Consulting  
Community. The P2 Consultants Exchange on, January  
9 offered environmental consultants training sessions on:  
1) available P2 resources; 2) P2 resources on the internet

3) total cost assessment; and 4) tips for marketing P2 to clients. A P2 vendor show was held as part of the event.

Automotive service workshops, led by the NH Auto Dealers Association, are planned for January 23 and 30, 1997.

### **P2 Partnership**

The NH Pollution Prevention Partnership (Partnership) members (comprised of individuals from industry, government, academia, trade associations, banks, environmental consulting firms, assistance providers, and others) continue to meet quarterly to network and discuss ways to better coordinate efforts to promote P2 in NH. The Partnership members are active in a number of UNH-based grant projects such as CLEAN-P2 (Compliance Leadership through Environmental Negotiation and Assessment), a model P2 practices video for metal platers and finishers, and an international project to share P2 lessons with plating companies and government officials in Thailand.

At the most recent quarterly meeting in December, NHPPP Manager Vincent Perelli presented the results of a Strategic Partnership Survey. This survey led to a strategic business planning meeting where significant progress was made in better understanding the role of the Partnership. At the planning meeting, the group decided that the Partnership will continue to support such activities at the Annual P2 Conference, the Pollution Prevention Internship Program, and a number of specific grant projects. Realizing that NH assistance providers are also key "customers" of the Partnership, several "get to know each other" breakfast meetings will be planned and new strategic Partnership members will be sought out. Also planned is a "Service Summit," similar to the one organized by NEWMOA last year to ascertain what other small business assistance providers are doing in NH.

### **P2 Internship Program**

The Partnership is gearing up for the Summer 1997 Pollution Prevention Internship Program. Brochures will be distributed shortly to NH businesses, and a poster session on the Internship Program is planned for the 5th Annual Pollution Prevention Conference. Expectations for the 1997 Internship Program are high. The last three summer programs were a great success--serving 25 businesses and two state programs and placing almost 40 interns. The cumulative expected and achieved cost savings to the companies associated with the Internship Program is reported to be in excess of a million dollars!

### **P2 Practices Video for Metal Platers & Finishers**

A video company was recently selected to produce the Model P2 Practices Video for Metal Platers and Finishers. The video planning team, comprised of representatives from UNH, NH DES, EPA, and industry, has been meeting regularly with the video director to finalize the program script. As envisioned, the video will feature Fritz Wetherbee (NH Public Television) as narrator, with appearances by Dr. Ihab Farag (UNH), Vince Perelli (NHPPP), Rudy Cartier (NH DES), and testimonials by a few NH company representatives.

### **Fifth Annual P2 Conference**

Mark Your Calendars! The final brochure for New Hampshire's Fifth Annual P2 Conference and Exposition is now ready for distribution. The conference is scheduled for March 31, 1997 at the New England Center in Durham, New Hampshire. The topics to be highlighted at the conference include: 1) Self-Audits/ISO14000; 2) Alternative Waste Management at Health-Care Facilities; 3) Eco-Assessments; 4) Sustaining P2 Programs Through Activity-Based Costing; 5) "All-in-One" Planning; 6) Eco-Industrial Parks; 7) Where to Find Emerging Technology; 8) Linking P2 and Health & Safety Concerns; 9) Partners in Protecting the Environment: The CLEAN-P2 Program; 10) Ten Steps to Environmental Excellence Through Environmental Accounting; and 11) Winning the Regulatory "Game."

A P2 Internship Program poster session will be a part of the event, as will an alternative vehicle demonstration. The Plenary Session will include a Governor's P2 Award Presentation, as well as a plenary panel focusing on the challenges of achieving economic prosperity and environmental quality. New to this year's program is a special price break and an evening program specifically tailored for small businesses. The evening program will include attendance at the last three conference sessions and presentations by Small Business Ombudsmen at the national, regional, and state levels.

### **1997 Governor's Award for P2**

Over 3000 application forms for the 1997 NH Governor's Award for Pollution Prevention were mailed out this Fall. The 1997 program features an expanded list of eligible applicants that include non-profit organizations and municipalities. The large, medium, and small business categories remain an important component of the program. A diverse panel of judges is currently reviewing the applications. The awards will be presented as part of the 5th Annual P2 Conference.

### **Crown Vantage P2 Project**

NH DES and Maine DEP continue to work with Crown Vantage staff in an effort to further promote P2 activities within the company. After a series of brainstorming meetings, the planning team has developed a prioritized list of planned P2 initiatives. The projects were selected based on financial and technical feasibility, adherence to the source reduction philosophy, and avoidance of cross-media shifts.

The first planned initiative will involve an audit of the plant's water and paper pulp losses. Most recently, the planning team presented the results to Crown Vantage Senior Management to garner support, a key "ingredient" for any successful P2 program. Management has endorsed the program, and the project team has begun planning for a plant-wide P2 employee training program.

### **Londonderry Eco-Industrial Park**

A Londonderry, NH industrial park is the focus of an innovate project modeled after a similar initiative in Denmark. The Londonderry Eco-Industrial Park will house industries that will form a self-supporting web of materials, waste and energy exchanges. The goal of the park is to create a community of independent, but interconnected, manufacturers who voluntarily form links in a kind of industrial symbiosis, thus matching inputs and outputs to the environment's carrying capacity. DES staff have participated in public meetings for the park. The meetings have shown that adjacent property owners attending were in favor of the project. A draft set of covenants including performance standards and site development standards for park tenants is currently under review.

### **Performance Partnership Grants/Agreements**

NH DES submitted a final draft Performance Partnership Agreement to EPA Region I. This agreement is currently being reviewed by EPA and also undergoing a limited public comment period. The agreement covers the full range of Department programs - air quality, water quality, water supply, wetlands, and solid and hazardous waste management. The agreement includes a Performance Partnership Grant for the water programs; the Department has elected to apply for traditional categorical grants in the other program areas for Fiscal Year 1997. The target date for signing the Agreement is February 14, 1997.

### **Multi-media Inspections**

NH DES multi-media inspection initiative continues

to progress. Staff continue to refine the multi-media inspection protocol and checklist. In the past few months, inspections have been focused on facilities in NH's Great Bay region to increase compliance in one of the state's most valuable watersheds.

### **Strategic Coordination Effort**

NHPPP staff and other interested personnel have been conducting some Strategic Coordination activities. The purpose of these activities is to provide for a smooth transition in the P2 Program created by the new mandates contained in the recently enacted P2 legislation and to foster a more comprehensive "team approach" to achieving the NH DES P2 and compliance goals.

### **DES "Green Team"**

The NH DES Green Team continues to meet regularly and work on a variety of projects. The Team initiated a demonstration project to divert pre-consumer food scraps from the waste stream generated by the cafeteria at the Hazen Drive office building. During the five month operating period, 4,682 pounds of useable organics were diverted from the wastestream and composted on site. The project has been discontinued for the winter due to weather and site access challenges and will resume again in the spring.

The team is also working on a department-wide toner and ink jet cartridge recycling program, a proposal to join the EPA Green Lights Program, and procurement recommendations for recycled-content products.

### **Thailand Project**

NH DES, on behalf of the University of New Hampshire, has been granted funds by the Council of State Governments and US - Asian Environmental Partnership to create a P2 and technology transfer partnership with Thailand. The project, which focuses on assisting the Thai electroplating industry, is directed by Dr. Ihab Farag (UNH), in cooperation with the P2 Coordinator and representatives from various other NH organizations and business. Dr. Farag has made two trips to Thailand to assess the situation and meet with representatives from the Thai government and industry. A larger NH delegation will visit Thailand in the Spring 1997. The purpose of this delegation will be to provide information/technology transfer and technical assistance.

### **Mercury Reduction Project**

The P2 Coordinator is participating in a multi-media project to examine the sources of mercury pollution in NH and recommend methods to reduce such pollution. A

small group of DES staff is currently finalizing a report to NH DES Commissioner Robert W. Varney that will summarize the workgroup's findings and recommendations for action.

**For more information, contact:** Stephanie D'Agostino, DES P2 Coordinator (603) 271-6398 or Vincent Perelli, NHPPP Manager (603) 271-2902 or [perelli@deswmdpl.mv.com](mailto:perelli@deswmdpl.mv.com)

## **NEW YORK**

### **NEW YORK STATE DEC**

#### **Organizational Changes**

With former Commissioner Michael Zagata having resigned as of December 31, 1996, the Department now has an Acting Commissioner, John P. Cahill who had been in charge of DEC's Office of General Counsel for the past two years.

#### **Workshops**

DEC has recently held two P2 workshops. The first PPIS-funded printers' workshop was held in October in Buffalo with a new twist. Regional DEC staff working with the Central Office on the development of the session expressed an interest in promoting the new "customer friendly" image of the agency by holding the event at the regional office and structuring it as an open house. The P2 Unit worked with the local printers trade association in setting up the workshop, distributing the brochures and collecting the registrations. Case study speakers from the printing industry were invited to give short presentations and then talked one-on-one with the participants. By having DEC staff, industry and trade association reps talk and mingle with the attendees, the agency was able to meet the goals of the workshop. The response from all involved was enthusiastic. Carlos Montes is the coordinator of the printers' workshops.

A P2 Unit new staff member, Jack Nasca, conducted a workshop for local government and small business in October. Using his considerable experience in coordinating the State's equivalent of NEPA, he has been able to quickly understand the needs of local government and small business in environmental compliance, auditing, and P2.

#### **Publications**

The P2 Unit has just completed the development of two documents for lithographic printers. The "Environmental Self-Assessment for Lithographic

Printers" is an off-shoot of the New York State Environmental Self Audit for Small Business, which has been a popular document. By designing the document to specifically address the lithographic printing process, small commercial printers should be able to more easily assess their environmental compliance and P2 opportunities. The Multimedia Assessment and Pollution Prevention for Lithographic Printers (which is a supplement to a larger DEC document entitled "Are You A Small Quantity Generator?") provides information on P2 and recycling strategies for small commercial printers.

#### **Annual P2 Conference & Governor's Awards**

Planning is underway for the 10th Annual Pollution Prevention Conference to be held in Albany on June 2-4, 1997, with co-sponsors, The Business Council of NYS, Inc. and the Environmental Business Association of NYS, Inc. The Conference theme will be "Progress Over A Decade: Lessons Learned," and DEC is planning an agenda that will bring back past speakers and revisit P2 topics that have been included in previous conferences. The applications for the 4th Annual NYS Governor's Award program will be mailed out in January with a deadline for submission of March 14, 1997. Governor Pataki has been asked to present the awards at the June Conference.

**For more information contact:** Mary Werner, NYS DEC (518) 457-2553.

### **NEW YORK STATE EFC**

New York State's Small Business Stationary Source Technical and Environmental Compliance Assistance Program (PROGRAM) was created by federal and state legislation to help small businesses come into voluntary compliance with the regulatory requirements of the Clean Air Act. This effort is managed by the Environmental Facilities Corporation (EFC) and Empire State Development (ESD).

The PROGRAM's Environmental Ombudsman and Small Business Assistance Program along with the DEC's central and regional offices are currently participating in a series of "scoping sessions" across the state. The purpose of these sessions is to discuss effective methods of outreach to help small businesses understand applicable regulatory requirements and their rights and responsibilities under the law with other assistance groups. Once the scoping sessions are completed at the end of January, and their

recommendations are summarized and discussed, the PROGRAM plans to conduct sector-specific workshops to help small businesses with registration and permitting issues as they strive to achieve compliance.

**For more information contact:** Marian Mudar, NYS EFC, (518) 457-4100.

## **RHODE ISLAND**

### **RHODE ISLAND DEM**

#### **P2 Conference**

*"The P2 Parade is a very long parade. In it, there are floats from all the public agencies, private companies, ...civic associations, topical floats and theme floats."--Harry Freeman, Executive Director, Louisiana Environmental Leadership Pollution Prevention Program at the 1996 RI P2 Conference*

Participants from as far away as California attended the 3rd biennial RI Pollution Prevention Conference and Expo held in late October at Providence's new RI Convention Center. New England's largest P2 event, co-sponsored by RI DEM and the Narragansett Bay Commission, had been extended to 2 1/2 days in order to accommodate a wide range of topics. Presentations included workshops in the areas of metal finishing, hospitals and medical facilities, marinas and boat building, screen and lithographic printing, and textiles. The latest developments in commercial recycling and the Brownfields program were also highlighted.

Officials from state and federal regulatory agencies were on hand to assist companies with compliance issues. RI Governor Lincoln Almond presented the Governor's Awards for Excellence in Pollution Prevention to five companies that demonstrated innovative and cost-effective technologies in their day-to-day operations. The vendor expo area filled to capacity with companies showcasing their latest products and technological advances in various areas of P2.

Keynote speakers Harry Freeman and EPA Regional Administrator John DeVillars, along with Senator-elect Jack Reed and Keith Lang from Senator John Chafee's office, entertained, as well as praised the lunchtime crowd of industry representatives for their continuing efforts in reducing and eliminating pollution at the source.

## **New Headquarters**

The P2 Program recently moved to new office space within the DEM's new Office of Technical and Customer Assistance (OTCA) in Providence. The Program, headed by Richard Enander, continues in its mission to offer technical and compliance assistance to RI industries looking to reduce their raw chemical and hazardous material purchases, recycle and reuse waste streams, and improve their bottom line. The P2 group's newest area of focus this year will be in starting up the Clean Air Act Small Business Assistance Program. As regulations are created and amended, companies will be informed in a "plain english" format as to what their responsibilities are under the Clean Air Act. Information about current regulations will also be targeted to companies via fact sheets and industry-specific association meetings. The placement of the P2 Program within OTCA falls in line with the Department's recent reorganization plan to provide non-regulatory, confidential service and to enhance a customer friendly image to the general public.

**For more information contact:** RI DEM Pollution Prevention Program (401) 277-3434.

## **VERMONT**

### **VERMONT DEC**

The Environmental Assistance Division sponsored a P2 workshop on December 3 at Vermont Technical College on metal working fluids. The workshop focused on regulatory issues, fluid selection, and management practices to reduce hazardous waste and wastewater discharges. There were about 30 participants, including Vermont metal working companies, vendors of metal working fluids, and DEC regulatory staff. The main presenter at the workshop was Tom McLure from the Institute for Advanced Manufacturing Sciences in Cincinnati. The workshop also served as an effective forum for industry input on proposed changes to the state's hazardous waste regulations as they affect water soluble oils.

Other workshops planned for April and May include: P2 for hotels and lodging; vehicle service and repair; and an introductory workshop on ISO 14000. These workshops are being co-sponsored with the Vermont Small Business Development Center (SBDC).

The VT SBDC has hired Peter Crawford as P2 specialist to assist small business in environmental management issues. The SBDC also serves as program administrator for Vermont's retired engineers on-site P2 assistance program. The Vermont DEC provides funding for this program and works closely with SBDC on this and other education and assistance efforts such as workshops for businesses. (See the VT SBDC update for more details.)

In another joint effort, the Vermont DEC and SBDC are collaborating with the Vermont Manufacturing Extension Center (VMEC) on a NIST environmental assistance planning and coordination grant. In January, a contractor will be selected to facilitate the process of developing a plan for coordinating environmental assistance providers in the state and carrying out pilot projects to test the plan.

The Environmental Assistance Division has hired its compliance assistance engineer to provide on-site and office-based multi-media environmental compliance assistance to small businesses. Judy Mirro, as wastewater engineer with the Vermont DEC for the past 13 years will begin program development in January. P2 staff will also participate in the program and are currently beginning the development of state-specific and sector-specific compliance assistance guides. The first two guides being developed are for printers and vehicle service and repair.

The Division has completed a pilot of its Business Environmental Partnership Program. This program is a certification and recognition program for small businesses that requires adoption of core and elective environmental management practices and standards that promote P2 and environmental compliance in exchange for recognition and possible future regulatory flexibility. The pilot was conducted with about a dozen printers and vehicle service and repair facilities. A final report and recommendations from the pilot, which was conducted by DSM Environmental Services of Ascutney, Vermont, is being reviewed and evaluated, prior to determination of future direction and implementation of the program.

The Vermont DEC has finalized its Department Rulemaking Procedure that incorporates P2 considerations in the early aspects of rule development. In addition, the EAD will provide review and comment on all draft department rules in regard to the degree to which the rule allows for P2 to be considered as a means of environmental compliance. Copies of the procedure are available upon request.

The Vermont DEC is also developing a P2 integration procedure for permit writers and inspectors that will outline recommended practices to be followed that promote P2 in these functions. The agency anticipates that a procedure will be finalized in February, and inspectors and permit writers will receive training on the procedure this spring.

The Vermont Agency of Natural Resources has developed a draft Pollution Prevention and Resource Conservation Plan for the three departments - Environmental Conservation, Fish and Wildlife, and Forests, Parks, and Recreation. The plan is currently under review by the Secretary of the Agency for ratification prior to implementation of priority recommendations. This plan was developed as part of a 1994 executive order by Governor Howard Dean, creating a Clean State Program. Other activities in the Clean State Program include a Clean State Council that meets quarterly and undertakes environmental initiatives involving purchasing and materials use, including recycling, toxics use reduction and source reduction in state government.

The fourth annual environmental indicators report "Environment 1997" will be available for distribution in January. The theme of this year's assessment of Vermont's natural resources is Lake Champlain and Lake Memphremagog, the state's two largest lakes and watersheds, with a focus on human health, ecosystems, and the economy.

**For more information contact:** Gary Gulka, VT DEC, (802) 241-3626 or [garyg@wasteman.anr.state.vt.us](mailto:garyg@wasteman.anr.state.vt.us).

### **VERMONT SBDC**

The Vermont Small Business Development Center (SBDC) is continuing its Environmental Assistance Services for Business this year, focusing on P2 and information to serve Vermont's business community. The goal of this program is to create linkages and partnerships with existing environmental service providers and to expand the current menu of business and technical assistance to include environmental services for Vermont businesses. An example of this is free and confidential environmental assessments (contracted through Retired Engineers and Professional-REAP), focusing on identifying waste reduction and resource conservation opportunities to both save money and promote a cleaner environment. Though this service is available to all businesses within

the State, manufacturers with hazardous process chemicals are the main target.

### Other Services

- On-site assessments of business for waste reduction, recycling, energy and water use to help reduce their operating costs;
- Assistance in understanding environmental permits and compliance, designing packaging to reduce waste and enhance recyclability, procuring products containing recycled materials and environmentally sound products, and finding sources for technical assistance;
- Help with financial analysis of implementing P2 or control investments, using a businesses environmental efforts as a marketing tool, and networking with other businesses who are reducing their overhead through sound environmental management.

**For more information contact:** Peter Crawford, VT SBDC (802) 728-1423, pcrawfor@night.vtc.vsc.edu.

## EPA REGION 2

### P2 Grants

Under the Pollution Prevention Incentives for States (PPIS) grant program, Region 2 awarded two grants to Rutgers University's Environmental Law Clinic. The first is to work with towns along the Morris and Essex railroad lines in New Jersey to develop walking, bicycling access and natural gas-powered jitney service to selected stations, and to encourage housing and retail development in the station areas to encourage rail ridership and a reduction in automobile use. The second is to provide educational and technical assistance to local communities in order to facilitate the development of rail and marine facilities at the Howland Hook Marine Terminal on Staten Island, the Bayonne Military Terminal and the southern areas of the Brooklyn waterfront, thereby reducing the number and size of trucks traveling through New York City.

Another PPIS grant was awarded to the Puerto Rico Environmental Quality Board to expand their, now two-year old, Total Quality Pollution Prevention program into the regulatory arena.

A fourth PPIS award was given to the New Jersey Department of Agriculture to expand its successful, pesticide and fertilizer reducing, integrated crop management program to the Upper Delaware River

Watershed and the upper watershed regions of the Raritan River Basin.

An Environmental Justice through Pollution Prevention grant was awarded to the Natural Resources Defense Council (NRDC). NRDC, in partnership with West Harlem Environmental Action (WE ACT), will implement four initiatives in Northern Manhattan. They are the:

- Uptown Diesel Initiative to educate residents on the impact of diesel emissions on their health and to encourage public participation in the development of sustainable transportation strategies;
- Dry Cleaning Initiative to assess dry cleaners' willingness and financial opportunities to invest in equipment upgrades and alternative technologies that would reduce the use of perchloroethylene;
- Commercial and Industrial Sites Audit to provide a block by block map showing numbers and types of commercial and industrial businesses in four distinct communities in Northern Manhattan to support a project that WE ACT is undertaking with the NIEHS Center for Environmental Health; and
- Keeping Brownfields Clean Initiative to educate communities in the Northern Manhattan Empowerment Zone in defining appropriate Brownfields redevelopment projects and on technologies and potential projects that would integrate P2 into the redevelopment efforts.

Region 2's FY'96 P2 Support Funds are being used for three projects. Two are to Cornell Cooperative extension in Suffolk County to encourage integrated pest management among growers and to develop demonstration sites to encourage xeriscaping (native plantings) among municipalities and home owners. The third award is being used to continue support for New York City Council on the Environment's Training Student Organizers program in the Greenpoint/Williamsburg section of Brooklyn. (Contact: Janet Sapadin 212- 637-3584.)

### Brownfields Pilot-Trenton, NJ

Eco-industrial parks have been identified by the President's Council on Sustainable Development and the White House Office of Science and Technology as an important strategy toward implementing the goals of the Rio summit as outlined in Agenda 21. Since the Fall of 1994, Region 2 has been part of a diverse group, called the Eco-industrial Roundtable that meets monthly to identify how an eco-industrial park could stimulate

opportunities for Trenton, NJ. The mission of the Eco-Industrial Roundtable is to demonstrate a new paradigm for competitive business development that is based on environmental linkages and social responsibility. The goals of this effort are to: synergistically link industrial, commercial, residential and educational elements using strategies that are ecologically sound and maximize renewable energy and energy conservation technologies; create market incentives for sustainable job formation and economic development; encourage community strengthening values and environmental protection and restoration; and position the City of Trenton for a "green" future. The City of Trenton in collaboration with Region 2's Brownfields staff is involved in an eco-industrial complex demonstration study. Recently, Edward Cohen-Rosenthal, and his staff from Cornell University's Center for the Environment - Work and Environment Initiative received a contract to work with the City of Trenton on the project. (Contact: Walter Schoepf 212-637-4319.)

#### **Environmental Technology Initiative Training**

On September 25, 26 and 27th inspectors and permit writers from Region 2 attended a P2 training course being offered by EPA HQ through ETI. The course included two days of classroom training in NJDEP offices in Trenton and one day in the field at Hoffman-La Roche in Belvedere, N.J., an active pharmaceutical ingredient plant (bulk manufacturing facility). The course provided an general overview of P2 (with an emphasis on incorporating P2 into the permit-writing process) and specifically focused on assessing P2 opportunities in the pharmaceutical industry. The course included a presentation by the staff from the U.S. Food and Drug Administration on the "FDA Perspective on P2 in the Pharmaceutical Industry." (Contact: Marcus Zobrist 212-637-3516.)

#### **Green Lights/Climate Wise Program**

Region 2 recruited the Puerto Rico Ports Authority (airports and seaports) into the Climate Wise and Green Lights programs, and Puerto Rico completed a green house emissions inventory with an OPPE grant, targeting reductions in electricity as a major strategy for reducing green house gas emissions. (Contact: Ed Linky 212-637-3764.)

#### **Conferences/Lectures**

On October 24, 1996, a representative from Region 2 provided guidance in a panel discussion on ecological

responsible design sponsored by the student designers, New York Chapter of the American Institute of Graphic Arts. The meeting was held at the Fashion Institute of Technology. Region 2 shared with the group highlights of EPA and printing industry partnerships, including the New York City Common Sense Initiative Printer's P2 Education Project, Printing Industry Sector Notebook and the extensive internet resources that students can tap into to learn more on incorporating P2 into design plans for the home, school and the workplace. The students explored the internet sites, particularly the National Printers' Compliance Assistance Center, which is a one-stop shopping tool for accessing EPA and Printing Trade Association information (nearly all students had internet access but were unaware that these sites existed). Region 2 also provided the students with WasteWi\$e literature on design success stories for packaging reduction and reusable packaging (e.g., McDonald's Corporation reduced the raised design on its napkins, which allowed for 23 percent more napkins to fit into a shipping container and eliminated 294,000 pounds of corrugated packing boxes and 150 truckload shipments.) (Contact: Deborah Craig: 212-637-3521.)

On October 29th, Donald Rodier of Headquarters Chemical Screening and Risk Assessment Division visited Region 2 and spoke to EPA and NYSDEC staff on Kodak's P2 Project. This project was established to allow industry to review the potential for toxicological and ecological effects of a chemical before it goes into wide use. HQ provided Kodak with approximately 20 methods/models from which to choose the most appropriate for a product they were considering manufacturing. Because of the outcome of the models utilized by Kodak and the indication of greater aquatic toxicity than Kodak had originally believed would occur, Kodak decided to alter their process and disposal methods for this use/production of the chemical reviewed. (Contact: Diane Buxbaum 212-637-3919.)

On January 29, Dr. Stephen Frantz, of the New York State Department of Health will give a presentation at 290 Broadway, as part of Region 2's P2 Lecture series. Dr. Frantz will discuss the integrated pest management work he is doing throughout New York State under an FY'94 Pollution Prevention Incentives for State grants. (Contact: Janet Sapadin 212-637-3584.)

#### **Printing Sector Seminars**

EPA Region 2, NYSDEC, other state agencies and printing trade associations helped plan three seminars for printers in the New York City area. The seminars will

be held on February 11-12 with early morning and late afternoon sessions to accommodate printers' schedules. The seminars will be patterned after NYSDEC's Buffalo seminar held earlier in the year. The seminars are funded in part through an EPA Region 2 PPI S grant. (Contact: Janet Sapadin 212-637-3584.)

### **Information Resources**

As part of the New York City Printers' Education Project (a subset of the Printers' Common Sense Initiative [CSI]), small printers will be provided with technical assistance on P2 practices. The CSI printers' workgroup, on which Region 2 staff participate, is developing a NYC "Yellow Pages" guide of New York technical assistance/P2 providers. The guide is intended to cover government providers at city, state and federal levels; trade associations and other non-regulatory providers. The guide will also serve as a resource on multi-media P2 services offered to industry, beyond printers, as well as the general public. NYCDEP has taken the lead in developing the P2 "Yellow Pages". (Contact: Deborah Craig 212-637-3521.)

### **US Postal Service Environmental Workshops**

The Postal Service requested Region 2's presence at three Environmental Workshops that they held for 150 Post Masters on Long Island on September 9-10, 12-13, and 16-17. A representative from Region 2 presented information about the types of wastes generated by the Postal Service (mainly from vehicle maintenance), basic compliance information, and the benefits of P2 (using information developed from several P2 opportunity assessments that were conducted with Postal Service Vehicle Maintenance Facilities under a Region 2 initiative a few years ago). (Contact: Marcus Zobrist 212-637-3516.)

**For more information contact:** Janet Sapadin, U.S. EPA Region 2 (212) 637-3584.

## **EPA REGION 1**

### **Regulatory Integration Initiatives**

On November 7, Region 1 and NEWMOA conducted a roundtable on regulatory alignment for printed wire board manufacturers. Representatives from industry, EPA, NH, and MA discussed instances of regulatory conflict revealed by NEWMOA's previous survey of industry and local, state and federal agencies -- issues such as duplication in sewer connection permitting

requirements between states and local agencies. In January NEWMOA submitted a summary report on its survey of industry and government officials and the results of the meeting along with a set of follow-up recommendations. EPA is currently considering several next steps.

### **Program Evaluation Initiatives**

Region 1 is involved in a national workgroup formed by EPA's Office of Enforcement and Compliance Assurance (OECA) to produce guidance on essential components of EPA HQ and Regional compliance assistance programs. The intent is to insure greater consistency across Regions, spell out appropriate and non-redundant roles for HQ, Regions and states/locals, and spur progress in measuring success in activities and programs. Region 1 is attempting to insure that the guidance incorporates greater attention to P2, maintains flexibility in roles among different levels of government, and keeps reporting requirements reasonable.

### **Workshops/Training**

Region 1 and NH held the first Annual Meeting and Metal Finishing Workshop of the Merrimac (NH) Chapter of the American Electroplaters and Surface Finishers Society on October 1. The goal was to attract membership to this local chapter, which has been defunct for many years. This is part of the NEEA Team's strategy to build capacity for compliance and P2 activity in the metal plating industry. 80 representatives from small and large facilities, POTWs, state and local governments and consulting firms attended the workshop.

Region 1 organized seven workshops and one booth for the Rhode Island Pollution Prevention Conference on October 23-24, on topics such as new P2 technology for lithographic and screen printers, reuse opportunities for electronic equipment, and how to finance P2 projects.

Region 1 continues to publish the technical bulletin "Pollution Prevention and the Bottom Line." To get on the mailing list, call Chris Jendras (617) 565-3283.

On October 30, the U.S. Postal Service (USPS), a New England Environmental Leadership Program participant, hosted an open house at its Hartford Vehicle Maintenance Facility to demonstrate its impressive achievements in integrating P2, best management practices, and compliance into its business operations. Over 130 people participated in self-guided tours of the facility and asked questions of facility staff and

regulatory agency (CT DEP and EPA Region I) representatives.

Abby Swaine and Jack Healey of Region 1 conducted one-day courses on Effective Communication and Conflict Resolution in MA and VT. The audience consisted of supervisors and staff from municipal and industrial NPDES operations.

Region 1 and MA held a workshop for printed circuit board manufacturers and metal finishers on December 3 in Westford, MA. The workshop covered compliance issues (EPA and OSHA) and P2 opportunities the two industries have in common. Industry representatives submitted questions on regulations as they registered for the meeting. Mary Dever of EPA offered to facilitate the exchange of equipment, chemicals and other materials found at EPA Superfund Removal Sites to interested viable companies.

#### **NEEA Team Sector FY97 Workplan Highlights**

*Auto Repair (Mary Dever 617-565-9408):*

- Develop plain-language fact sheets (specific topics will be determined by an information needs survey; may include refrigerant recharge/retrofit requirements and underground injection control).
- Partner with states and others to develop and conduct two compliance and P2 workshops (with MA OTA and DEP) and one technology fair (with RI DEM and industry).
- Help develop state-federal tools. (Example: MA OTA's auto body compliance handbook.)
- Keep NE assistance providers abreast of national assistance efforts.

*Electronics/Computers (Christine Bonica 617-565-3251):*

- Wrap up regional outreach work. Assistance needs are largely being met by other mechanisms -- state programs and industry associations.
- Continue work on projects connected with national initiatives, including CSI and Project XL.
- Complete compliance manual outlining MA regulations affecting the printed wiring board (PWB) industry. The manual will complement the already existing Design for Environment manual of federal regulations.

#### **P2 EXPERTS AVAILABLE ONLINE !!**

The P2 Experts database is a searchable directory of private sector P2 professionals, including consultants, business professionals, educators, and staff from environmental organizations. P2 Experts offers a quick and convenient way to locate individuals that possess industrial and process knowledge and other P2 expertise. P2 Experts is funded by a U.S. EPA grant to the National P2 Roundtable (NPPR). NEWMOA is cooperating with NPPR on the development of the database.

P2 Experts is located on EPA's EnviroSenSe World Wide Web Site. To become a participant or access the P2 Experts web site, contact Rob Guillemin, NEWMOA (617) 367-8558 or visit the P2 Experts site at <http://ex.inel.gov/nppr/p2experts>.

- Issue final report on NEWMOA/EPA project to define and address the lack of alignment between local, state and federal regulatory programs.

*Metal Finishing (Linda Darveau 617-565-4993 and Joan Jouzaitis 617-565-9009):*

- EPA, CT DEP and ConnTAP will hold two workshops for chrome platers in CT on the Chrome MACT Standard. The workshops will be followed by on-site assistance with stack testing.
- EPA and NEWMOA will develop a slide show to illustrate RCRA compliance problems in plating shops, and disseminate it through NE trade associations.
- EPA and UNH are producing a video to bring information on sources of assistance and new technologies (including diffusion dialysis and aqueous cleaning) to small platers in NH who cannot attend workshops.
- Work with the Metal Finishers Suppliers Association and state technical assistance programs to put on a workshop in each state highlighting new compliance tools for metal finishers (e.g., comprehensive manual and internet site).
- Work with Tellus Institute to update and expand the EPA's Finance Guide, and put it on the internet so that it can be accessed through the Small Business Compliance Assistance Centers.

- Continue to work with trade associations to disseminate information about new regulations and technologies. This will include day long meetings on environmental issues with the Merrimac Valley and Providence Attleboro Chapters of AESF.

*Municipal Sector (Charles Conway 617-565-3517 and Jack Healey 617-565-3542):*

- Provide on-site technical assistance to municipal treatment facilities and industries, and teach four to six seminars to improve operations at municipal treatment facilities.
- Promote environmental education through participation in the Northeast Partnership for Environmental Technology and Education.
- Hold three municipal pretreatment conferences in MA, NH, and ME to address stringent NPDES permit limits for metals at municipal wastewater treatment facilities. Municipal water supplies have been found to be the major source of metals in wastewater in many communities.
- Co-host a conference in VT to promote conservation and source reduction in dairy and dairy-related industries.
- Northern New England Technology Forum: Hold one to two conferences to provide officials in rural northern N.E. with current municipal and industrial treatment information, sample vendor products, and contact with agency representatives.
- Salmon Falls River Phosphorus Reduction Project: Continue this cooperative effort with NH, ME and Somersworth, NH officials to reduce phosphorus discharges to the river through source reduction rather than treatment.
- Stage two or more workshops for municipalities and industry to explore the pros and cons of privatization -- contractors operating wastewater treatment facilities. The goal is to produce a guidance package and model Request for Proposal for municipalities considering privatization.

*Printing (Anne Leiby 617-565-4974 and Sally Mansur 617-565-1378):*

- Finalize and distribute a compliance and P2 manual for lithographers and a series of state-specific companion booklets.
- Produce fact sheets for screen printers.
- Stage P2 and compliance workshops in three states.

- Conduct outreach to printing trade schools, including compliance and P2 fact sheets for schools and instructors, and presentations about compliance and P2 at teacher conferences.

- Provide outreach to printers in sensitive ecosystems and/or urban areas.

- Host technology open houses to showcase P2 techniques.

- Participate in the Technology Demonstration Project underway at the Massachusetts Toxics Use Reduction Institute.

*Schools (Lee MacMichael 617-565-9230 and Christine Bonica 617-565-3251):*

Approach to this new sector for NEEAT:

Beginning in FY97, the NEEATeam has chosen to focus on schools with an emphasis on vocational/technical schools. There are a large number of these schools in New England and each is responsible for a wide array of regulatory requirements. Many are unaware of the extent of their obligations, and most have limited resources and expertise to address the issues of which they are aware. There appear to be significant P2 and compliance issues among schools, as identified by federal inspectors and state/local assistance providers. In addition, schools present many opportunities for significantly affecting the ethic of the next generation of workers in trades and crafts.

State agencies, federal government and other local and independent organizations have focused resources on providing environmental assistance to schools. There is a need to build an alliance to improve communication amongst these groups and to make the schools more aware of the environmental assistance resources already available to them. The NEEATeam's goals for this sector are to strengthen the network among assistance providers in New England, improve the compliance rate of schools, and assist in instilling a P2 ethic in students, teachers and administrators.

Because this is a new sector for the NEEATeam, the programs has focused on exploring what is already happening with schools in enforcement and technical assistance in New England. The program will assess existing information on non-compliance problems and available curriculum and technical information. NEEAT will establish a network where assistance providers can work more efficiently with each other and individuals can be better aware of the resources available to them. The

program anticipates creating forums for information sharing, using the internet, conferences, and creating a mailing list of New England vo-tech schools, school administrators, and other relevant partners.

The NEEA Team anticipates a two-pronged approach in working with the schools sector.

- Compliance at schools -- Non-compliance at schools could result in real threats to human health and the environment and put the schools in jeopardy of incurring significant fines if left unaddressed.
- P2 opportunities and curriculum -- Instilling a P2 ethic in students is critical, given that they will likely be working in the fields they are studying upon graduation.

*Wood Furniture Manufacturers (Andy Miniuks 617-565-3049):*

Approach to this new sector for NEEAT:

New England is one of the major centers for wood furniture manufacturing in the US. In general, New England manufacturers specialize in manufacturing high quality furniture. The wood furniture finishing process is the largest user of solvents: approximately 270 million pounds per year. The emissions from a typical manufacturing facility are usually vented without treatment and are generated with relatively unsophisticated spray guns operating in a spray booth setting. During 1997, a NESHAP under the Clean Air Act will come into effect that will regulate wood furniture manufacturers that are considered major sources. VOC emissions limits are also a concern.

This sector may be characterized as relatively unsophisticated, with no strong trade association and few resources to research P2 opportunities. Potential partners for this effort include solvent vendors, the national trade association and state P2 technical assistance programs.

To address these problems/opportunities, NEEAT will implement the following projects and activities:

- Establish a comprehensive database that lists all NE facilities and categorizes each by industry segment.
- Develop a variety of P2 fact sheets targeted to each sector segment.
- Hold a series of regional workshops to promote less volatile solvents and more efficient manufacturing equipment.
- Possibly, perform consumer outreach to promote

acceptance of less glossy finishes typically achieved with aqueous coatings.

**For more information contact:** Abby Swaine, EPA Region 1 (617) 565-4523.

## **NORTHEAST STATES P2 ROUNDTABLE**

The Northeast States P2 Roundtable has several new projects underway in addition to those described in the Feature Article, including development of a P2 Trainer database, research on mercury reduction and control strategies in the region, and publication of a report on P2 activities and successes in the region. These projects are described below.

### **P2 Trainer Database**

In collaboration with the National Pollution Prevention Roundtable (NPPR) Training, Education and Learning Workgroup, the NE P2 Roundtable is piloting development of a database of P2 training activities that the state and local P2 programs in the region have developed. This database will provide individuals and organizations involved in conducting professional training on P2 and related topics with access to current information on what others in the field have already done. There is a wealth of expertise among P2 practitioners on conducting professional training for a wide variety of audiences, and this database will be designed to capture this expertise in a single location so that everyone can share the knowledge. The pilot project is funded under a grant from EPA Headquarters.

The NE P2 Roundtable is piloting the P2Trainer database in the Northeast in 1997 and is targeting programs in the Northeast for collecting information this year. The audience for P2 Trainer is primarily federal, state and local government assistance and regulatory officials involved in training sessions on P2 topics. The database will focus on workshops that this audience has conducted on P2 topics for government and industry personnel, environmental groups, community groups, consultants or the general public. The NE Roundtable recently developed a draft survey and plans to send it out for data collection sometime later this winter.

### **Mercury Reduction & Control Strategies**

Because of increasing concern about elevated levels of mercury in the Northeast, the states have joined

### *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 Regions 1 and 2 and the northeast states.

NE P2 Roundtable would like to thank the following people for writing and producing this newsletter: Cynthia Barakatt, Robert Brown, Peter Crawford, Stephanie D'Agostino, Joe Antonio, Gary Gulka, Marian Mudar, Vince Perelli, Ruth Polk, Lisa Regenstein, Janet Sapadin, Abby Swaine, Mary Sherwin, Paul Walsh, Mary Werner and Terri Goldberg. Terri Goldberg managed production of the newsletter. Special thanks to Lois Makina for typing the newsletter.

The NE P2 Roundtable appreciates hearing comments and suggestions on the newsletter from the readers. Write us at the address on the back cover of the newsletter or call 617 367-8558, e-mail: NEPPR@tiac.net. Please use the form at the back of this issue to request an address change or to add your name to the mailing list. We appreciate your cooperation in ensuring that the mailing list is correct.

together in an effort to better understand the nature and extent of this problem and to develop joint approaches to reducing this pollutant. As a first step, the Northeast States for Coordinated Air Use Management (NESCAUM), the New England Interstate Water Pollution Control Commission (NEIWPC), and the Northeast Waste Management Officials' Association (NEWMOA) are collaborating on a regional report on mercury contamination. The report will:

- Characterize what is known about the sources and air deposition of mercury.
- Report on the results from fresh water fish monitoring studies by the states.
- Describe what is known about the health effects of mercury.
- Describe current activities to reduce air emissions and

other sources of mercury in the region.

- Present recommendations for additional research and an action plan for the region.

NESCAUM is responsible for the sections of the report that characterize sources of air emissions, the results of monitoring and modeling studies, and the health effects of mercury; NEIWPC for the section on the analysis and interpretation of fish monitoring studies; and NEWMOA for the section on reduction and control strategies currently underway in the region. The interstates will share in the development of an action plan for the region.

The research for the report is currently underway. A draft report for internal state review is scheduled for release late in the Spring.

### **Regional P2 Report**

The NE P2 Roundtable initiated development of a regional report on P2 progress at the last meeting of the group in September. This report, which is funded under a small grant from EPA Region I, will be designed to provide a regional perspective on the scope and level of P2 activities and success over the past few years. The purpose of the report is to identify the types and magnitude of P2 activities that have taken place in the region and to present the results and impacts of those activities where information is available. The report will be designed to build upon the existing information available from state and local P2 programs and is not designed to ask programs to collect new environmental data from companies.

The NE P2 Roundtable is currently finalizing a questionnaire and will be collecting the information for the report this winter.

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

## **NEW P2 PUBLICATIONS**

### **New P2 Publications at NEWMOA's P2 Clearinghouse**

Permanent Pollution Prevention Program: Workshop and Supplementary Materials, Version 3.1, September, 1996. Texas Natural Resource Conservation Commission (TNRCC). Available from TNRCC (512) 239-3100.

“Pilot Pollution Prevention Program for Electric Utilities Final Report: Measurements and Recommendations.” Lower Colorado River Authority. October 1996. Available from (512) 473-3333.

“Pollution Prevention in the Merrimac River Watershed: A Collection of Case Studies.” Northeast Business Environmental Network. November 1996. Available from NBEN (508) 557-5475.

“Resource Efficient Building: Reducing Materials Use, Toxicity and Waste In Design and Construction.” WRITAR. March 1995. Available from WRITAR, (612) 379-5995.

**New Documents Available from EPA Pollution Prevention Information Clearinghouse (PPIC)**

These documents can be ordered from US EPA's Pollution Prevention Clearinghouse (PPIC): phone number: (202) 260 1023; fax number: (202) 260-4659; e-mail: ppic@epamail.epa.gov

A-125 Annual Report of the Office of Pollution Prevention and Toxics, FY 1995 (64pp).

C-211 Accounting, Insurance and Capital Budgeting; P2FINANCE Software Version 3.0 (In Lotus 1-2-3 Version 3.4 for DOS or Microsoft Excel Version 5.0 for Windows), a User's Guide is available.

C- 622 Caso De Estudio De Serigrafia #2: Cambio de Equipo y Reduccion del Uso de Solvente en la Recuperacion de Tamices - September 1996 (4pp). *Spanish translation of Dfe Screen Printing Project Case Study #2.*

C- 623 Caso De Estudio De Serigrafia #3: Innovaciones de Adhesivos, Limpieza de Tamices, y Recuperacion de Tamices - September 1996 (4pp). *Spanish translation of Dfe Screen Printing Project Case Study #3.*

C-624 Lithography Project Case Study #2: Pollution Prevention at Custom Print. August 1996 (4pp).

C-625 Lithography Project Bulletin #1: Substitute Blanket Washes: Making Them Work. August 1996 (4pp).

C-625 Lithography Project Bulletin #1: Substitute Blanket Washes: Making Them Work. August 1996 (4pp).

C-626 Lithography Project Bulletin #2: Workplace Practices Make the Difference. September 1996 (4pp).

C-627 Lithography Project Bulletin #3: Vegetable Ester Blanket Washes. October 1996 (4pp).

C-628 Designing Solutions for Screen Printers: An Evaluation of Screen Reclamation Systems. September 1996 (52 pp).

C-629 Screen Printing Project Case Study #2: Changing Equipment and Reducing Solvent Use in Screen Reclamation. September 1996 (4pp).

C-630 Screen Printing Project Case Study #3: Innovation in Adhesives, Screen Cleaning and Screen Reclamation. September 1996 (4pp).

C-631 DfE Screen Printing Project: Pollution Prevention at Action Graphics, Inc (Video Case Study) 17 minutes.

E-208 Executive Order 12856: Federal Facility Environmental Outreach Guide - August 1996 (28pp).

E-323 Federal Register Notice, Environmental Leadership Program: Notice of Program Implementation.

# CALENDAR

Title	Sponsor	Date/Location	Contact
Environmental Professionals' Forum: New Directions for Environmental Compliance & Management	Executive Enterprises	January 23-24--The Walt Disney World Swan	(800) 831-8333
Automotive Services Workshop	NH Auto Dealers Association	January 23 & 30	(603) 271-2902
1997 Hazardous Materials & Waste Management Conference & Exhibition	American Defense Preparedness Assoc.	January 28-30--Portland Hilton, OR	(703) 607-7980
Environmental Cost Accounting Conference	KPMG Peat Marwick LLP & The Univ. of Texas at Austin	January 30-31--Austin, TX	(512) 475-8900
Alts. to Hazardous Air Pollutants	MA OTA	February 13--Needham, MA	(617) 727-3260
National Town Meeting on Environmentally Sustainable Energy Choices	Renew America	February 19	(202) 232-2252
US EPA Region 5 Waste Minimization/Pollution Prevention Conference for Hazardous Waste Generators	US EPA Region 5	February 25-27--Westin Hotel, Chicago	(800) 221-3262
Continuing Education Conference for Toxics Use Reduction Planners	The Massachusetts Toxics Use Reduction Institute	February 26-27 --Royal Plaza Hotel & Trade Center, Malboro, MA	(508) 934-3275
Dry Cleaning Conference	CT DEP	March 2	(860) 424-3297
Regs., Incentives & the ISOs: Making the Connections	MA OTA	March 12--Sturbridge, MA	(617) 727-3260
P2 Workshop	The P2 Excellence Institute	March 24-28--Tysons Corner, VA	(301) 921-2345
NH 5th Annual P2 Conference	NH DES	March 31--New England Center	(602) 271-2902
NPPR Spring 1997 Conference	National Pollution Prevention Roundtable	April 2-4, 1997--Denver City Marriott, Denver, CO	(202) 466-P2P2
The First South Florida Sustainable Building Conference & Exhibition	Dade Green Coalition	April 10-12--The James L. Knight International Center, Miami, FL	(305) 375-1150
1997 New England Environmental Expo	New England Environmental Expo	April 29, 30 & May 1--World Trade Center, Boston, MA	(800) 831-8333
10th Annual P2 Conference	NYS DEC	June 2-4--Albany	(518) 457-2553
16th Annual Northeast Resource Recovery Conference & Exposition	Northeast Resource Recovery Association	June 2-3--Burlington, VT	(603) 224-6996

## NEWMOA'S P2 PUBLICATIONS

*Northeast States P2 Roundtable: A Directory of Participating Programs*, 1996, \$10 (\$5 for nonprofit & government agencies).

*Guide to Energy and Environmental Assistance Programs in New England*, 1996, Limited number of free copies.

*Pollution Prevention and Profitability, A Primer for Lenders*, 1996, Free.

*Financing Pollution Prevention Investments, A Guide for Small and Medium-Sized Businesses*, 1995, Free.

*Solid Waste Volume Source Reduction Programs in the NEWMOA States*, 1995, \$20 (\$10 for nonprofits)

*Improving Your Competitive Position: Strategic and Financial Assessment of Pollution Prevention Projects, A Training Manual*, 1994, \$15 (\$7.50 for nonprofit & government agencies).

*Improving Your Competitive Position: Strategic and Financial Assessment of Pollution Prevention Projects, Instructors' Guide*, 1994, \$30 (\$15 for nonprofit & government agencies).

*P2 Successes, A Compendium of Case Studies from the Northeast States*, 1993, \$30 (\$15 for nonprofit & government agencies).

*A Practical Guide to Pollution Prevention in the Northeast*, 1993, limited supply of free copies.

*Northeast States Pollution Prevention Roundtable Training Handbook*, 1993, \$80 (\$40 for nonprofit & government agencies).

*Pollution Prevention Measurement at Facilities: Status of the Northeast States' Programs*, 1993, limited supply of free copies.

For more information on ordering NEWMOA reports, call Lois Makina, (617) 367-8558 X300.

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## ***Northeast States Pollution Prevention News***

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