



Annual Report 2001

Assistance and Pollution Prevention Office (A&P2)

Using Voluntary Approaches to
Improve Environmental Performance
Throughout New England





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Winter 2002,

Dear Reader,

The Assistance and Pollution Prevention (A&P2) Office's mission is to improve New England's environment by encouraging more companies, organizations, and communities to achieve higher levels of environmental performance and compliance. This Annual Report provides an overview of the A&P2 Office's activities by highlighting 19 projects conducted in 2001. Although these ongoing projects use a variety of approaches to influence multiple audiences, they fall into the following three categories:

Improving the environmental performance of regulated communities by providing sector-based regulatory and technical assistance.

Solving environmental problems by matching environmental technologies to environmental needs.

Encouraging corporate and municipal responsibility, leadership, and improved environmental performance by providing new and innovative approaches to traditional regulatory strategies.

A summary report such as this can only briefly touch upon topics of significance and complexity, therefore each project description includes a list of contacts and resources for further inquiry. Readers are encouraged to contact us with questions or comments.

Finally, we acknowledge that our efforts and accomplishments require a high degree of involvement and support from many internal and external partners. With this in mind, we wish to thank our state and interstate partners, business associations, advocacy groups, and the public.

We hope that you find value and import in the work summarized in this report.

Sincerely,

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Executive Summary

EPA New England's Assistance and Pollution Prevention (A&P2) Office is active in many ongoing projects in a variety of sector areas. This Annual Report highlights 19 ongoing projects conducted in 2001.

The A&P2 Office was created in 1995 to provide environmental assistance to the regulated community and encourage improved environmental performance through innovative and voluntary approaches. To do so, the A&P2 Office forms partnerships with a wide range of stakeholders, including states, municipalities, companies, trade organizations, non-profits, environmental organizations, colleges, universities, hospitals, and federal agencies. By establishing these important partnerships, the A&P2 Office improves outreach, strengthens voluntary commitments, and develops cohesive environmental strategies.

The A&P2 Office also experiments with innovative approaches that enhance environmental performance by overcoming regulatory, technical, and institutional barriers. In particular, efforts are made to encourage regulated communities to move beyond minimal levels of compliance.

Pollution prevention and sustainability are fundamental principles that guide the work conducted by the A&P2 Office. The principles support a systems approach to solving environmental problems to benefit the environment, public health, and the economy.

In 2001, A&P2 staff completed more than 175 activities that reached over 10,800 companies, agencies, organizations, and individuals. These activities use a wide assortment of communication, outreach, and assistance tools, including meetings, conferences, mailings, publications, on-site and phone assistance, and Internet resources. The A&P2 Office's ongoing work falls into three categories: (1) Improving performance in targeted sectors, (2) Matching technology to environmental needs, and (3) Encouraging superior environmental performance.

Improving Performance in Targeted Sectors

The A&P2 Office provides compliance and technical assistance to targeted sectors that lack the awareness, resources, or expertise to fully address their environmental responsibilities. The sectors targeted were colleges and universities, municipal vehicle maintenance facilities, marinas, metal finishers, secondary schools, small drinking water systems, and university laboratories.

The outreach and educational efforts used to influence these sectors include the following:

- Workshops on regulatory compliance, pollution prevention, and emerging technologies.
- Specialized services, such as technology demonstrations, on-site assessments, and issues roundtables.
- Written resources, such as manuals, checklists, and fact sheets.
- Telephone and on-site assistance.
- Internet resources.

The innovative approaches used to encourage higher levels of compliance and environmental performance, included the following:

Self-audit programs that reduce the risk of enforcement action for a limited time as regulated entities identify and correct violations.

Environmental management systems (EMSs) that enable organizations to identify and systematically manage their environmental responsibilities.

Performance measures and benchmarks to better understand and report on environmental outcomes.

Matching Technology to Environmental Needs

Environmental technologies offer methods to reduce environmental pollution and increase environmental performance. The A&P2 Office expedites the development and implementation of environmental technologies in the following ways:

Fostering networking and collaboration through publications, workshops, and on-line databases to match technology users with developers and other resources.

Providing regulatory flexibility and oversight to allow companies to validate and implement new technologies that offer superior environmental performance.

Collaborating with the states to develop tools that make technologies (especially P2 technologies) easier and faster to assess.

Encouraging Superior Environmental Performance

The A&P2 Office develops and promotes innovative voluntary programs that encourage superior environmental performance, leadership, and responsibility. In particular, the A&P2 Office undertakes the following efforts:

Work with states, municipalities, industries, trade organizations, environmental groups, and other stakeholders to develop solutions for emerging environmental problems.

Experiment with alternative regulatory strategies to overcome regulatory barriers, increase efficiencies, and improve environmental protection.

Establish and promote voluntary programs that commit participants to environmental goals that exceed minimum compliance levels.

Act as a model of environmental achievement by “greening” EPA New England’s facilities and operations.

Work for 2002

The majority of A&P2 projects are multi-year in scope. As priorities shift and programs accomplish their goals, A&P2 staff conduct research and development (R&D) work to identify projects that improve environmental protection in New England. Although not described in this report, the A&P2 Office is preparing to work with the New England states to enhance the regulatory compliance and environmental performance of auto salvage yards and hospitals.

Improving Performance in Targeted Sectors

While regulations set clear standards, many regulated entities – the majority of which are small – lack the environmental awareness, expertise, and/or resources to achieve environmental compliance. Although their individual environmental impact may be small, their cumulative environmental impact are of critical concern to regulators. To address this situation, the A&P2 Office targets sectors that require assistance with compliance and environmental performance. In 2001, these sectors included the following:

- Colleges and universities
- Marinas
- Metal finishers
- Municipal vehicle maintenance facilities
- Secondary schools
- Small drinking water systems
- University laboratories

Colleges and Universities

Promoting environmental compliance and “beyond compliance” performance through education, self-audits, and environmental management systems (EMSs)

Environmental Problem

There are 278 colleges and universities (C/Us) in New England (with 303 facilities including branch campuses), each operating like a small town, managing hazardous materials and complying with a wide range of environmental regulations. The decisions these institutions make regarding environmental compliance and health and safety issues influence hundreds of thousands of students, faculty, staff, and the communities in which they reside.

In March of 1999, EPA New England launched its college and university initiative by announcing continued enforcement targeted at the sector and by providing basic regulatory workshops. The subsequent multi-media inspections detected numerous environmental and compliance problems at some schools, some of which generated serious health, safety and environmental concerns. These inspections ultimately led to significant enforcement actions. As inspections continued, however, EPA noticed that environmental performance remained inconsistent. EPA determined that enforcement efforts alone could not yield consistent compliance throughout the sector. Simultaneously, EPA’s heightened enforcement presence generated requests for assistance to help C/Us understand and comply with environmental requirements.

A&P2's goal for colleges and universities is to improve their understanding of compliance

obligations and to promote beyond-compliance opportunities by encouraging the use of sound management tools and practices.

Work in 2001

In 2001, EPA intended to scale back the amount of resources it had been devoting (for the past two years) to provide basic compliance assistance for C/Us. However, based on a statistical survey, many institutions indicated a continued need for basic regulatory compliance information. In response, EPA co-sponsored the “Environmental 101 for Colleges and Universities” workshop with Colby College. Ninety-eight representatives from New England C/Us attended the workshop, which provided basic compliance information about hazardous waste management, air emissions, storm water management, emergency planning, and community right-to-know responsibilities.

EPA also encouraged C/Us to perform self-audits and to implement environment management systems (EMSs). More specifically:

The self-audit initiative offered C/Us the opportunity to reduce their exposure to enforcement activities for a limited time by identifying violations and voluntarily correcting them. All six New England states were consulted before implementation, and the Massachusetts Department of Environmental Protection co-sponsored the initiative with the Region. Approximately 140 colleges and universities agreed to join the initiative. A&P2 developed an EMS Implementation Guide to help C/Us design and implement an environmental management system in a streamlined, cost-effective manner. The Guide includes environmental aspects worksheets, compliance calendars, compliance checklists, compliance management and record keeping forms. Three C/Us (the University of New England, Wentworth Institute of Technology, and the University of Massachusetts-Amherst) are piloting the EMS Guide to test its efficacy and provide feedback to EPA.

Future Work

In 2002, EPA will:

- Continue to have an enforcement presence at C/Us.
- Offer basic regulatory information to those requesting assistance.
- Pilot test the EMS Implementation Guide at six to eight additional C/Us in New England (and

2001 Highlights

A&P2 co-sponsored three events that educated colleges and universities on environmental requirements, best management practices (BMPs) and sustainable practices for campuses. Ninety-eight representatives from New England C/Us attended a workshop at Colby College on environmental compliance.

Based upon survey results, many New England C/Us indicated that EPA’s presence (both enforcement and compliance assistance) encouraged them to improve their environmental performance and institute procedural practices, such as EMSs and self-audits.

More than 140 C/Us are participating in a voluntary self-audit program, in which they will identify, disclose, and correct violations and then prevent them from recurring.

Three C/Us joined a pilot project to test the effectiveness of an EMS Implementation Guide.

EPA’s C/U website received 38,736 hits from January to December.

possibly two schools in EPA Region 2).
Design a workshop to guide C/Us towards the implementation of EMSs.
Create a C/U sustainability strategy (based on a dialogue with the regulated community and stakeholders) that will encourage colleges and universities to implement sustainable changes at their facilities. As part of this overall strategy, information about sustainable practices may be presented as an on-line “catalogue, providing short description of sustainability projects, including case studies with lessons learned.

Contacts and Information

For more information about the EPA’s C/U program, assistance tools, and the EMS Implementation Guide, visit:
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Marinas

Improving marina compliance and environmental practices through targeted and regionally coordinated assistance

Environmental Problem

In New England, more than 1,000 marinas repair, store, maintain and fuel water craft. These activities can present a number of significant environmental issues, including the following:

Point and non-point source pollution from the storm water contaminated by marina operations.

Spills and emissions from fuel and oil.

Generation of a significant amount of hazardous waste from paints, solvents, degreasers, oils, and fuels.

A&P2 discovered that marinas often lack the environmental expertise and resources to achieve high environmental standards. This problem is compounded by the decentralized and fragmented nature of marina regulation in New England, where a variety of agencies regulate and provide assistance to marinas. To help remedy this situation, EPA New England developed a regionally coordinated assistance initiative to improve marina environmental compliance and to promote best management practices (BMPs).

Work in 2001

Important relationships were built with state environmental departments, trade associations, marina owners, and nonprofit organizations to develop a strategy and support for assisting marinas. In

2001 Highlights

Established a regional workgroup to coalesce attention and coordinate federal and state efforts related to marinas.
Developed and conducted on-site surveys of 70 New England marinas to establish a baseline for performance measures.

addition, a regional marina workgroup was established to hold quarterly meetings to improve communications between assistance providers and federal /state programs.

To help benchmark marina performance, EPA developed a statistically-valid survey consisting of an on-site assessment checklist of key requirements and desired practices. The survey targeted 70 New England marinas to establish a baseline of regulatory awareness and confirmed the existence of many problems identified by the A&P2 Office's initial research on the marina sector.

Future Work

In 2002, the marina assistance initiative will develop several tools for improving marina compliance and environmental practices. These include the following:

- A document that clarifies environmental requirements and lists assistance resources.
- A series of workshops for marina owners.
- A regional marina website.
- An environmental management systems (EMS) workbook for marinas.

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Additionally, a Clean Marine Engine campaign will be implemented to encourage the purchase and use of low-polluting boat engines. Other possible projects include efforts to promote shrink-wrap recycling, clarification of state storm water permit regulations and a training tool for marina owners.



Metal Finishers

Using voluntary partnerships and on-site workshops to promote efficiency, improve environmental performance, and move the industry beyond compliance.

Environmental Problem

The 1,300 metal finishing facilities in New England generate hazardous waste and emit metals, solvents, and toxic chemicals to the air and waterways. Many of these facilities are small and, due to limited resources, face challenges in achieving environmental compliance and pollution prevention. Environmental agencies have historically made these facilities an enforcement priority, but enforcement alone has not been able to deal with the root causes of non-compliance, which runs as high as 30% of all inspected facilities.

2001 Highlights

50 companies joined the Strategic Goals Program in New England. Massachusetts facilities have achieved a 35% reduction in the use of water, a 50% reduction in sludge, and a 58% reduction in metals emissions to water since 1992.

Work in 2001

Two approaches were used to address the root cause of non-compliance at metal finishing facilities. First, A&P2 continued to promote the National Metal Finishing Strategic Goals Program, a

partnership between EPA, the metal finishing industry, state and local governments, non-profit organizations, and industry associations. Metal finishing companies voluntarily sign up to meet the goals, which include a 50% reduction in water use and a 50% reduction in the emission of metals to water. EPA New England has promoted the program to the region's metal finishers to encourage companies to prevent pollution, improve environmental performance, and move beyond compliance. EPA New England partnered with Raytheon, Inc. as the first Corporate Sponsor of the Strategic Goals Program. Raytheon's goal was to bring about positive changes in their suppliers (many of whom are small businesses in the metal finishing industry), in order to improve their reliability and efficiency, helping Raytheon's operations.

Second, EPA New England conducted several Best Practices workshops for metal finishers that focused on specific pollution reducing techniques designed for line operators. These workshops were conducted in six metal finishing shops around New England and included hands-on experiments with line operators and real-time calculation of potential cost savings. Approximately 100 participants from 25 shops attended the workshops and 90% of the attendees planned to use the information at their facilities. A follow-up phone survey three months after the workshops found that 80% of the participants could point to actual changes they had made in their shops based on information from the workshops. These changes resulted in the reduction of metals emissions and greater conservation of water and raw materials.

Future Work

In 2002, EPA New England will continue to promote the Strategic Goals Program and look for new and innovative ways to help metal finishers meet their goals. This includes internship programs for college students to give hands on technical assistance to small companies, and expanding the Corporate Sponsorship Program to encourage large companies to mentor their small metal finishing suppliers.

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For more information about the National Strategic Goals Program visit its home page: www.strategicgoals.org/

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Municipal Vehicle Maintenance Facilities

Using self-audits and training to improve environmental compliance

Environmental Problem

Municipalities, like businesses, have many environmental management responsibilities. When state and federal regulatory agencies increased their inspections of highway garages it became apparent that many municipalities did not understand their regulatory responsibilities or even which regulations applied to their operations. The American Public Works Association (APWA) approached EPA to remedy this situation.

Work in 2001

The Office of Environmental Stewardship's (OES) A&P2 and Enforcement staff collaborated to build upon an existing EPA program the Audit Policy program and develop an innovative approach to encourage voluntary compliance by Departments of Public Works (DPWs). Using the existing Audit Policy, a facility audits its operations for compliance with environmental requirements, discloses the violations to EPA and corrects the violations in a timely manner. In return, a facility receives the lowest inspection priority from EPA for a limited time and penalties for violations are either eliminated or substantially reduced, if all the audit program conditions are met.

To encourage participation in the audit program, and at the request of APWA, OES developed educational materials, including a checklist, tip sheet, and a fact sheet for municipal vehicle maintenance facilities. In April, the audit program was rolled out at the APWA's annual meeting, which had 300 attendees. In addition, the APWA hosted workshops throughout New England where EPA was able to explain and encourage participation in the program to over 250 attendees.

The DPW Audit Program built on 20 workshops given by the A&P2 Office throughout New England to help DPWs understand regulatory requirements and go beyond environmental compliance.

Future Work

EPA will continue its partnerships with state agencies, APWA and other professional associations to provide assistance to DPWs. EPA will conduct the following activities:

- Work with APWA to measure the environmental benefits from increased compliance resulting from the audit program.
- Develop materials and hold a series of workshops to help DPWs understand and comply with the new storm water requirements. (For more information on A&P2's storm water assistance efforts, see the Storm Water section of this report on page 28.)

2001 Highlights

Collaborated with the American Public Works Association (APWA) to develop audit materials and conduct presentations reaching over 500 individuals.
Provided audit information to over 300 attendees at a "hand-on" trade show for Connecticut DPW workers.
Developed tailored checklists, tips, and, fact sheets to help vehicle maintenance facilities audit their operations and improve environmental performance.
Over 300 municipal vehicle maintenance facilities in New England are conducting self-audits to identify and correct violations.

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Secondary Schools

Improving chemical management in secondary schools

Environmental Problem

In New England, more than 1,800 high, middle, and vocational schools use and manage a wide variety of chemicals in their classrooms, vocational shops, and facilities. Some of these are cancer-causing, flammable, explosive, or reactive with water, and require ultimate disposal as hazardous wastes. Many schools lack the expertise and resources to properly address these hazards and have no system in place to help them choose safer alternatives when purchasing materials or establishing school policies on the use and management of chemicals.

The goal of EPA New England's Toxics Free Schools Team is to establish assistance networks and provide technical training that addresses immediate chemical hazards by removing unnecessary toxic chemicals and by preventing the recurrence of similar problems.

Work in 2001

The Toxics Free Schools Team focused their efforts on increasing dialogue among state agencies in Connecticut, New Hampshire, and Rhode Island and supporting established networks in Massachusetts and Maine. The team worked with representatives from state departments of education, environmental protection, occupational safety and health, labor, public health, agriculture, and emergency services, non-profit organizations, institutions of higher learning, and local government officials. These networks collaborated to educate the schools and each other on the range of problems schools face, to coordinate and expand the tools and services they provide, and to identify sources of funding or new strategies to help schools address environmental concerns.

EPA held a state-wide conference in Rhode Island and New Hampshire on chemical management in schools, and over 150 teachers, administrators, nurses, and local officials attended. Additionally, EPA participated in training opportunities offered through school related professional organizations across New England including science supervisors, technical educators, vocational teachers, teachers unions, public health officials, facilities managers, nurses, and emergency responders.

Finally, the Toxics Free Schools team worked with EPA's enforcement team on the settlement of the Brown University enforcement action. As a part of the settlement, Brown agreed to provide training and chemical inventory software to Providence, RI high schools; technical assistance and

2001 Highlights

Established or expanded school networks in Connecticut, New Hampshire, Maine, Massachusetts, and Rhode Island.

Co-sponsored chemical management workshops in Rhode Island and New Hampshire that reached over 150 attendees. Reached over 400 participants (e.g., teachers, superintendents, nurses, and state and local officials) through 20 workshops and meetings in the region.

Used a settlement with Brown University to earmark \$175,000 for chemical clean outs and improved chemical management in Providence Public schools and Brown University Laboratories.

Encouraged the private sector to help schools with chemical management and disposal (see Box 1 below).

funding to support the removal of excess, expired and hazardous chemicals stockpiled at the schools; and training and equipment to implement microscale chemistry, which will reduce the amount and toxicity of chemicals used in laboratories.

Future Work

In 2002, EPA will continue to work with:

- State agencies and other organizations to expand the statewide networks.
- The EPA enforcement office to find opportunities to use enforcement settlements to benefit schools.
- Corporations to encourage and support the development of assistance programs for their community schools.
- Schools to explore the possibility of implementing pilot opportunities to test best management practices (BMPs) and environmental management concepts

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Box 1

Corporations Helping Schools with Chemical Management and Disposal

A&P2 supports and encourages private sector efforts to assist schools with their chemical management and disposal problems. One example of how corporations help schools is a program being piloted by Pfizer Inc. and LEARN, a consortium of southeastern Connecticut school districts. The “Building an Integrated Chemical Management Program for Schools” program presents a “cradle to grave” chemical management life cycle approach that includes environmentally preferable chemical purchasing, storage, use and disposal practices. In addition to providing educational workshops, the program seeks opportunities to offer participants chemical disposal at reduced costs to the community schools.

EPA has provided input on the program and supports the leadership and commitment that corporations can show to communities.

Small Drinking Water Systems

Providing compliance and technical assistance to Maine’s small drinking water systems

Environmental Problem

In New England, 95% of the 12,000 public drinking water systems are small (each serving less than

3,300 people) and 90% of these small systems are the very smallest, each serving less than 100 people. In total, small systems (SS) serve approximately 1,950,788 people in New England (14% of the total population). Drinking water sources for these small systems are threatened by potential contamination from multiple sources, including failed septic systems, leaking sewer lines, agricultural runoff, and land discharges which may seep through soils. To address these problems, small system operators need to know how to conduct water sampling and implement water quality improvements in accordance with state and federal requirements.

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Work in 2001

This project was in the research and development phase in 2001. Based on that research, staff identified a need for tools that address appropriate sampling procedures and treatment options for a variety of water quality problems. Water quality issues that require attention include the removal of contaminants including arsenic and methods for improving water odor and taste. To address these issues, a partnership was established with the state of Maine Drinking Water Program and the Maine Rural Water Association to deliver assistance.

Future Work

In 2002, A&P2 staff will coordinate with Maine state agencies to provide the following:

- Assistance to small systems, especially those that have not been reached by the state.
- Compliance information for existing regulations and other management practices of importance (including the new arsenic rule and counter-terrorism management).
- New information tools, currently being developed in EPA Headquarters (e.g., state-specific brochures, guides, and workbooks).
- Participation in the New England Drinking Water Advisory Board to identify and encourage new technologies for small systems.

University Laboratories XL Project

Promoting regulatory flexibility to improve the environmental management of academic laboratories

Environmental Problem

For several years, colleges and research laboratories across the country have maintained that the Resource Conservation and Recovery Act's (RCRA) hazardous waste regulations are intended for manufacturing facilities and are poorly suited to regulating labs with large numbers of very small waste streams. In particular, complex definitions for hazardous waste can impede the reuse and recycling of chemical materials. A 1996 survey showed that labs recycle less than 1% of their hazardous waste. A second problem is the 3-day requirement for moving wastes from a satellite storage area to the main hazardous waste accumulation area. Due to the large number and dispersed

location of academic labs, campus Environmental, Health and Safety (EHS) technicians are on call, responding in a reactive mode rather than being able to work proactively to make environmental improvements.

To address these issues, in 1999, the A&P2 Office initiated an university laboratories eXcellence in Leadership (XL) Project with the Vermont Department of Environmental Conservation (VT DEC) and the Massachusetts Department of Environmental Protection (MA DEP). The Project allows participating educational institutions (Boston College, University of Massachusetts - Boston, and the University of Vermont) limited regulatory flexibility to develop and implement tailored environmental management plans (EMPs) to improve their compliance and environmental performance.

Work in 2001

The University Laboratory XL Project's three university members implemented their EMPs in the 2000-2001 academic year, and began to survey the effectiveness of their lab worker training programs. In addition, EPA New England worked with MA DEP and VT DEC to conduct audits of the universities' environmental management programs. They found that the training programs increased lab workers' awareness of environmental, health and safety regulations, and compliance with RCRA regulations.

Future Work

The University Laboratory XL Project is midway into its four-year project life. EPA, MA DEP, and VT DEC will continue to work with the three universities and stakeholders to discuss the projects, analyze results and develop recommendations.

To promote pollution prevention as an important component of the project, efforts will continue to identify and solve barriers to chemical reuse and recycling.

2001 Highlights

The three participants of the University Laboratory XL Project (Boston College, the University of Massachusetts - Boston, and the University of Vermont) implemented environmental management plans (EMPs) to increase the health and safety awareness of laboratory workers and improve chemical waste management practices.

As required by the XL agreement, EPA New England, MA DEP, and VT DEC audited the university laboratories and assessed progress toward ultimate program goals.

Contacts and Information

See the following website for additional information: www.epa.gov/projectxl

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Matching Technologies to Environmental Needs

Environmental technologies offer methods to reduce environmental pollution and increase environmental performance. Prescriptive regulations, however, can impede the adoption of new technology and technology users often lack the time and expertise to investigate the latest scientific achievements. Meanwhile, technology developers struggle to identify markets for their products and frequently overlook federal programs that verify product performance and fund research.

The A&P2 Office expedites the development and implementation of environmental technologies in the following ways:

The Center for Environmental Industry and Technology (CEIT) was created specifically to help technology users and developers overcome information barriers. Through its publications, on-line technology databases, and workshop series, CEIT fosters the necessary networking and collaboration that helps match technology users and developers to each other and to proper resources.

The A&P2 Office provides regulatory flexibility and oversight to assist companies with the validation and implementation of new technologies that provide superior environmental performance.

The A&P2 Office works with the states to develop tools that make technologies (especially P2 technologies) easier and faster to assess.

Center for Environmental Industry and Technology (CEIT)

A clearinghouse of environmental technology information for technology users and developers

Environmental Problem

Technology innovation is indispensable to achieving environmental goals. Many current technologies fail to solve pressing environmental problems and, in some cases, are too costly for widespread adoption. Unfortunately, technology developers confront a range of regulatory and market-based obstacles to acceptance of their products. Furthermore, when new technologies are developed, the regulated community frequently lacks the expertise to select the technology that will achieve compliance or take them beyond compliance. To address this situation, the Center for Environmental Industry and Technology (CEIT) was established to help environmental technologies find their way to the market place.

Work in 2001

One of the Center's main functions is to act as a clearinghouse for information, simplifying the technology developer's search for the right federal or state program. The Center's free monthly electronic newsletter **EnvirotechNews** provides technology developers with information relevant to the environmental technology industry, such as government funding opportunities, Environmental Technology Verification (ETV) opportunities, and an events listing. The newsletter also provides a "Technology Opportunity" section that solicits environmental technologies through anonymous requests by organizations seeking solutions to their regulatory problems. For more in-depth information, CEIT publishes **Technovation**, a technical bulletin that highlights government programs and promising technologies. Additionally, through its **Hotline**, CEIT staff refers callers to the appropriate organization, program or agency.

The Center also sponsors **Golden Opportunity Seminars** in which participants learn of opportunities for research and development funding, such as EPA's Small Business Innovation Research (SBIR) Program. In recognition of CEIT's support for EPA's SBIR program, headquarters has allocated \$2 million for a special EPA-NE SBIR solicitation for technologies to address storm water, combined sewer overflows (CSOs), infrastructure, and resulting contaminated sediments in urban rivers.

CEIT also helps regulators and technology developers overcome regulatory and institutional barriers. The **New England Interstate Regulatory Cooperation Project** (a collaboration among CEIT, EPA New England program staff, the six New England states, and interstate organizations such as the Northeast Waste Management Officials' Association [NEWMOA] and the New England Interstate Water Pollution Control Commission [NEIWPC]), shares information about new technologies and speeds their common adoption among the six states. Two key areas for activities in 2001 included (1) improving the quality of site characterization at small hazardous waste sites and (2) assisting small water supply systems in meeting regulatory requirements through new drinking water treatment technologies.

Additionally, in 2001, CEIT was instrumental in establishing the **New England Regional Drinking Water Advisory Board**, a cooperative effort with EPA New England's Office of Ecosystem Protection, NEIWPC, the New England states and the Water Treatment Technology Assistance Center at the University of New Hampshire. The board serves as a forum for identifying the needs of small and very small drinking water systems and for identifying, reviewing and recommending new and existing treatment technologies.

2001 Highlights

Sent 12 monthly issues of **EnvirotechNews** to over 875 subscribers.

Answered 750 technology requests.

Published an issue of **Technovation** entitled: "Small Business Access to Research and Development Funds"

Organized 2 **Golden Opportunity Seminars** on government funding opportunities and proposal preparation for technology developers.

Added 31 New Technologies to the **Innovative Technology Inventory** on the web, bringing total number of technologies to 125.

CEIT also offers web-based resources for the regulated community to access information about new technologies. These include a web-based searchable **Innovative Technology Inventory** and **Virtual Trade Shows** for storm water and wastewater treatment technologies, totaling 165 available technologies.

Future Work

In 2002, CEIT will continue to offer its Ombudsman Hotline, EnvirotechNews, Technovation publications, and Golden Opportunity Seminars. CEIT will also promote its web services, including the Virtual Trade Shows, the Innovative Technology Inventory, and EnvirotechNews to the regulated community through mailings and outreach activities. Under the New England Interstate Regulatory Cooperative Project, CEIT will co-sponsor two conference/trade shows on innovative site characterization technologies. Through EPA's Small Business Innovation Research Program, CEIT will also recommend early-stage R&D funding for technologies that address New England's environmental needs.

Contacts and Information

The CEIT web site directs visitors to many of CEIT's services.

www.epa.gov/region01/steward/ceit/

CEIT Hotline (from New England only):
1-888-575-CEIT (1-888-575-1783)

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Emissions Monitoring XL Project

An experiment to test a state-of-the-art computer model to predict and reduce emissions from a waste fuel incinerator

Environmental Problem

The International Paper Company (IP) facility in Jay, Maine uses a waste fuel incinerator (WFI) that burns paper mill waste (e.g., wood chips, pelletized paper, sludge, bark, and fuel oil) to produce steam for its paper mill. Annual stack tests are conducted on the WFI to measure particulate matter emissions. IP wanted to test a Predictive Emissions Monitoring System (PEMS), a computer model that provides continuous estimate of emissions, to see if the WFI could operate at a higher level of steam production and lower

2001 Highlights

By providing regulatory flexibility and oversight, A&P2 staff helped International Paper implement an emissions monitoring technology for its waste fuel incinerator. As a result:

Steam producing capacity increased by 60%.
Particulate emissions decreased by 16%.
Better process controls allowed renewable fuel (bark) to replace two-million gallons of fuel oil per year.

emissions. By providing limited regulatory flexibility and oversight, the A&P2 Office's eXcellence in Leadership (XL) Project sought to facilitate the adoption of a new technology that provides economic benefits to the company and reduces air emissions.

Work in 2001

The A&P2 staff worked with a project team that included federal and state regulators, the town of Jay, environmental stakeholders, and other interested parties to review and evaluate the project. Particulate matter (PM), sulfur dioxide (SO₂), nitrogen oxide (NO_x), carbon dioxide (CO₂) and carbon monoxide (CO) were modeled and the team helped IP apply for and obtain a temporary allowance to exceed certain limits under very specific, short term conditions. In exchange, IP agreed to make a voluntary commitment to maintain all emissions from its WFI at no more than 90% of its licensed limits and to install the PEMS at their facility, if tests prove to be successful. Thus far, analysis and evaluation of the PEMS computer model has shown that, by adjusting combustion parameters, the WFI increased its steam output by 60% and reduced its particulate matter emissions by 16%. The PEMS also allowed WFI operators to significantly increase the use of bark (a renewable fuel and a waste product of paper making), thereby saving two-million gallons of fuel oil per year.

Future Work

In 2002, A&P2 will continue to coordinate with the project team and oversee IP's testing and evaluation of the PEMS computer model. If the system succeeds, it will allow IP to obtain instant emissions and compliance information, allowing mill operators to proactively prevent potential non-compliance situations and stay well below permitted limits.

Contacts and Information

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Pollution Prevention Template

Overcoming informational barriers to the adoption of pollution prevention technologies

Environmental Problem

While pollution prevention (P2) technologies frequently offer cost savings and more efficient use of resources, companies are slower to adopt them than control and treatment technologies. This is due in part to a lack of complete and consistent information on P2 technologies, which can make them appear to involve greater risk than traditional technologies. To help

2001 Highlights

Closed-Loop Vapor Degreasing Technologies were featured on NEWMOA's Pollution Prevention Technology Profile, a tool that helps technical assistance providers understand the performance of a whole class of P2 technologies.

overcome this barrier, in 1996 EPA New England developed the **Pollution Prevention Technology Application Analysis Template** (P2 Template). The P2 Template is a succinct, user-friendly tool for systematically presenting essential information on P2 technologies, and allowing potential users and assistance providers to compare technologies and their applications in different settings.

Work in 2001

The A&P2 Office and the Northeast Waste Management Officials' Association (NEWMOA) hosted a meeting in June 2001 for the EPA Environmental Technology Verification (ETV) program representatives and the Northeast states. As a result of the meeting and follow up, the ETV program will develop a way to encourage the use of the P2 template by participating vendors.

With EPA support, NEWMOA designed a new product based on the P2 Template, **Pollution Prevention Technology Profiles**. These profiles will employ most of the elements of the Template, but instead of focusing on the performance of just one technology in different settings, the profiles will more briefly characterize the performance of a whole class of technology, using case studies. The profiles will require less vendor involvement to develop, and contain more background information suitable for assistance providers who need an overview of a class of technology. The first such profile, of Closed-Loop Vapor Degreasing Technologies, is complete and soon will be posted on the P2 portion of NEWMOA's website.

Future Work

In 2002, the A&P2 Office will:

Collaborate with ETV managers to select and institute a way for ETV to support or direct vendors to the P2 Template.

Work with NEWMOA to develop and disseminate additional P2 Profiles.

Contacts and Information

In 2001, EPA NE revamped its website for the P2 Template:

www.epa.gov/region01/steward/p2/intro.html

To see the P2 Technology Profile of Closed-Loop Vapor Degreasing Technologies visit the P2 portion of NEWMOA's website: www.newmoa.org.

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Encouraging Superior Environmental Performance

While traditional regulatory approaches keep most forms of pollution in check, additional gains can be made by developing more dynamic ways of improving environmental protection. In and of themselves, regulations fail to provide positive incentives to motivate regulated parties to move beyond compliance. In some cases, regulations may be too cumbersome or complicated for businesses that lack basic expertise and resources. Finally, existing regulations may not address emerging environmental issues that require new solutions.

To address these limitations, the A&P2 Office works as a laboratory to test voluntary programs that improve environmental protection and promote superior environmental performance. In particular, the A&P2 Office undertakes the following efforts:

Work with states, municipalities, industries, trade organizations, environmental groups, and other stakeholders to develop solutions for emerging environmental problems.

Experiment with alternative regulatory strategies to overcome regulatory barriers, increase efficiencies, and improve environmental protection.

Establish and promote voluntary programs that commit participants to environmental goals that exceed minimum compliance levels.

Act as a model of environmental achievement by “greening” EPA New England’s facilities and operations.

Effluent Improvement XL Project

Experiment to provide regulatory relief and create a collaborative process to reallocate resources that maximize improvements in environmental performance for a paper mill

Environmental Problem

Under EPA’s Pulp and Paper Cluster Rules (40 CFR 430.03), the paper industry is required to institute best management practices (BMPs) to meet wastewater standards. International Paper’s (IP) Androscoggin Mill in Jay, Maine maintained that the BMPs were redundant at their facility and would not lead to any appreciable environmental improvements. In response, the A&P2 Office’s eXcellence in

2001 Highlights

The A&P2’s eXcellence in Leadership (XL) Project provided regulatory flexibility and oversight that allowed International Paper to identify projects which will reduce chemical oxygen demand and color discharges from its Androscoggin Mill.

Leadership (XL) team worked collaboratively with IP to identify alternative ways to achieve environmental benefits through regulatory flexibility.

Work in 2001

The XL Project provided for the creation of a Collaborative Process Team comprised of IP engineers and managers, EPA, the Maine Department of Environmental Protection, the town of Jay, the University of Maine and other stakeholders. Specifically, the Team selected effluent improvement projects to reduce discharges of chemical oxygen demand (COD) and color that could yield greater environmental benefits than the projects mandated by BMPs. In return for regulatory flexibility, IP agreed to implement the projects designated by the Collaborative Process Team, set goals for environmental performance, and accept discharge limits for COD and color.

Future Work

In the short term, the Collaborative Process Team will continue to identify and select process improvements to reduce the discharge of COD and color. In the long term, the Team will reduce effluent concentrations, evaluate discharge data, establish COD and color discharge limitations, and incorporate these into the facility's NPDES permit. The lessons learned and technical discoveries in this process will be shared with others through the use of presentations and the publication of technical papers.

Contacts and Information

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End-of-Life Electronics Disposition

Promoting Product Stewardship to Solve the Growing Problem of Discarded Electronics

Environmental Problem

Disposal of electronic equipment (defined as any device that transfers voice and visual information) represents between 1% and 4% of the solid waste stream. By 2002, it is projected that more than 55.4 million desktop computers will become obsolete. Furthermore, electronic equipment contributes large quantities of toxic materials such as lead, zinc, nickel, and cadmium to the solid waste stream. Electronics also contain precious metals, plastics, glass, and valuable resources that could be reused. However, no formal infrastructure exists to properly reuse, recycle, dismantle, and dispose of used electronics in an environmentally safe manner. Consequently, EPA and state regulators, electronics manufacturers, and other stakeholders are currently working together on long term solutions to properly manage electronic waste (E-waste).

Work in 2001

The A&P2 Office led a regional EPA team that joined with concerned stakeholders (i.e., manufacturers, retailers, recyclers, environmental groups and 21 state and local governments) to form the National Electronic Product Stewardship Initiative (NEPSI) dialogue. The goal of the dialogue is to develop a national, voluntary solution for end-of-life electronic products management. The dialogue is ongoing and A&P2 is working with stakeholders to focus on developing the model for a national collection infrastructure.

2001 Highlights

Sponsored four stakeholder meetings, two to coordinate thermoplastic engineering and recycling efforts, and two to promote the development of recycling markets. Worked with the Northeast Recycling Coalition (NERC) to publish a manual on end-of-life electronics management for municipalities. Worked with NERC to organize two workshops to encourage electronics recycling at the municipal level reaching over 125 municipalities, state government, and industry

A&P2 staff worked with the Northeast Recycling Council (NERC) to develop two workshops to encourage electronic recycling at the municipal level. With EPA's assistance, NERC also produced a manual to assist municipal, state and federal agencies improve their end-of-life electronics management: *Setting Up and Operating Electronics Recycling/Reuse Programs: A Manual for Municipalities and Counties*.

Future Work

Due to NEPSI, industry and government have embraced the concept of product stewardship and are willing to take responsibility for environmentally sound disposal of electronic products. In 2002, we will:

Continue to work with NEPSI stakeholders to create a national recycling infrastructure for electronics by September 2002.

Work with other government groups to establish purchasing specifications for environmentally preferable electronics. It is expected that these specifications will call for less toxic materials and equipment designed to foster dismantling, recycling and remanufacturing.

Continue to provide technical assistance to entities working on electronic waste management.

Contacts and Information

To access a variety of solid waste reduction publications on end-of-life electronics visit the following EPA website:
<http://www.epa.gov/region1/compliance/solid/publications.html>

To download a copy of *Setting Up and Operating Electronics Recycling/Reuse Programs: A manual for Municipalities and Counties*, visit NERC's website: www.nerc.org

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Food Residuals Management

Collaborating with multiple stakeholders to build an infrastructure for food residuals management

Environmental Problem

Food residuals, which include plate wastes, prep wastes, and agricultural spoils, make up 10% of the municipal waste stream in the United States and only 2.4% of it is recovered and diverted from disposal. The United States Department of Agriculture estimates that more than one quarter of food is wasted in this country and that a 5% reduction of this waste would result in a \$50 million savings in solid waste disposal costs. EPA has also recognized that food waste is one of the next recycling frontiers to tackle.

Our goal for food residuals management was to assist in the creation of infrastructure to collect and process food waste into compost. In 2000 we held an international conference on food waste. The conference covered the hierarchy of food residuals management – food rescue banks, animal feed, rendering, and compost. Generators (grocery stores, institutions, and commercial generators), haulers, processors, end users, state agencies, and non-profits attended. In 2001 we determined that more work needed to be accomplished to bring the generators, haulers and end-users together to create the infrastructure.

Work in 2001

Through a grant to the Center for Ecological Technology (CET) and partnering with the Massachusetts Department of Environmental Protection (MA DEP), we conducted a summit to bring together over 150 of the stakeholders to discuss barriers and opportunities to increasing the capacity for food residuals composting in the state of Massachusetts.

Future Work

In 2002, A&P2 will finish its work with CET and MA DEP, conducting another summit for additional networking to create food residuals management infrastructure.

2001 Highlights

As a result of a summit of 150 food residual management stakeholders:

Generators (including leading grocery chains, municipalities, and colleges) are planning on starting or increasing their use of composting to divert food residuals from disposal.

A new composting site opened.

One municipality is testing curbside collection.

Contacts and Information

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Greening Government Agencies

Reducing the environmental impact of EPA New England's facilities and operations

Environmental Problem

With 1.5 million employees, tens-of-thousands of facilities and a budget that accounts for 7% of the Gross National Product, the federal government makes operational and resource management decisions that greatly impact the environment and the economy. The federal government is the largest consumer of energy in the nation (with an annual energy bill of nearly \$8 billion) and the largest single purchasing entity for copy and printing paper, computers, office supplies, and many other products and services. As a result of this consumption, taken as a whole, federal facilities deplete natural resources and generate large quantities of air pollution, greenhouse gases, ozone depleting chemicals, wastewater, solid and hazardous waste. As a federal Agency, EPA New England seeks to reduce its impact on the environment by examining its own facility operations and business practices for ways to increase resource efficiency and decrease the generation of pollution and waste. In doing so, the Agency sets an example of environmental excellence and directs its purchasing dollars to support sustainable products, services, and technologies.

2001 Highlights

In 2001, EPA opened a 68,000-square foot Regional laboratory that is 35% more energy efficient than comparable facilities.

EPA's One Congress Street building received a Race-to-Recycle Award for recycling over 77% of its solid waste stream.

Based on an energy audit contracted by EPA, the building owner installed an energy management system that will achieve a 30% decrease in energy use by 2003 (1999 base year).

EPA added four hybrid vehicles to its motor pool (avg. 50 mpg), resulting in 6,000 pounds of CO₂ reduction per year when compared to average gasoline-powered motor pool sedans.

Work in 2001

A wide range of environmentally beneficial activities was conducted throughout the year. In particular, EPA New England:

Announced that it will reduce its greenhouse gas emissions by 30% by 2003 (1999 baseline).

Based on an audit and research by EPA New England, the owner of EPA's Boston office building installed an energy management system which will help reduce carbon dioxide emissions by 3.3 million pounds per year.

Opened a new 68,000-square foot Regional laboratory that is 35% more energy efficient than comparable facilities. The lab's features include photovoltaic awnings, an energy efficient HVAC system, and energy purchases derived entirely from wind power.

Received a Race-to-Recycle Award from the Massachusetts WasteCap organization for increasing its recycling rate to 77%.

Replaced four motor pool sedans (avg. 25 mpg) with hybrid vehicles (avg. 50 mpg). Based on

average annual miles traveled, the hybrids will net reductions of 300 gallons of gasoline (worth approximately \$480) and 6,000 pounds of carbon dioxide.

Contracted with Hanscom Air Force Base to supply re-refined oil for EPA's motor pool fleet.

Purchased 100% recycled content copier paper for all office copiers.

Recycled 33,780 pounds of unwanted computer equipment and distributed 43 computers for reuse.

Future Work

The A&P2 Office, along with facility management, will establish a Green Team consisting of representatives from facility management, each EPA office, the A&P2 Office, Procurement, and Communications. The goals of the Green Team are to improve the Agency's environmental performance in the following areas:

Reduce the environmental impact of the Agency's facility and business operations.

Integrate environmental accountability into Agency day-to-day decision-making and long-term planning processes across all Agency missions, activities and functions.

Exhibit environmental leadership through examples of commitment and innovation.

Implement an environmental management system (EMS) by 2005 as required by the Greening the Government Executive Order 13148.

Contacts and Information

For more information about EPA New England's laboratory, visit:

www.epa.gov/region01/about/lab/index.html

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IBM Vermont XL Project

Exemption from hazardous waste designation enabled IBM to use an innovative process to ensure environmental protection, demonstrate energy savings and reduce greenhouse gas

Environmental Problem

IBM's Essex Junction, Vermont, semiconductor facility recently introduced an innovative copper metallization technology into their semiconductor chip manufacturing process. This new process is approximately 30%-40% more energy efficient than the previous one and produces a chip that is

approximately 25% more energy efficient than its predecessor. The process also reduces the use of perfluorinated compounds, a potent greenhouse gas, by 26%. However, because this process uses an electroplating technique, its rinsewater sludge is designated as hazardous waste under the Resource Conservation and Recovery Act (RCRA). IBM maintained that the hazardous waste designation was unwarranted because its new process eliminated the hazardous chemicals of concern found in traditional electroplating operations. Through its eXcellence in Leadership (XL) Project, the A&P2 Office facilitated a site-specific exemption from RCRA and maintained oversight of the process discharges to ensure a high degree of environmental performance.

Work in 2001

Under the XL Project, A&P2 staff worked with IBM to develop a program to verify that the copper metallization process produced rinsewater sludge that is free of RCRA regulated pollutants. After a period of testing and evaluation, EPA New England facilitated a site-specific RCRA exemption for IBM's new manufacturing technology. In addition, the A&P2 Office negotiated a number of voluntary efforts to reduce greenhouse gas emissions, including the upgrading of its silicon dioxide chamber cleaning processes.

Future Work

A&P2 staff will continue to work with IBM to monitor wastewater from its semiconductor chip manufacturing operation and oversee voluntary process improvements. The results of this project may encourage other semiconductor facilities to adopt more efficient production methods with corresponding reductions in waste generation, greenhouse gas emissions, air pollutants, and impacts on natural resources.

2001 Highlights

Provided regulatory flexibility and oversight to IBM that resulted in a non-hazardous designation for rinsewater sludge from a new semiconductor chip manufacturing process. This designation allowed resources to be redirected to other environmental projects and supported a technology that:

- Achieves 30%-40% improvements in energy efficiency.
- Reduces perfluorinated compounds emission by 26%.

Contacts and Information

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Massachusetts Environmental Results Program

Using education, self-certification, and measurement to reduce regulatory burdens and improve environmental performance for dry cleaners, printers, and photo processors

Environmental Problem

Many small businesses subject to environmental regulation face a complex permit process which creates a heavy burden on their limited resources and discourages them from attempting to come into compliance with regulations. At the same time, the large number of very small businesses makes it difficult for environmental agency staff to even identify all affected facilities and ensure compliance.

The Massachusetts Department of Environmental Protection (MA DEP) created the Environmental Results Program (ERP) to reduce the regulatory burden on small business while improving compliance and encouraging better environmental performance. The ERP program replaces formal state-issued permits with simplified and standardized requirements and a self-certification procedure for businesses. The program also provides compliance assistance and environmental performance measurements for long-term tracking of the program's effectiveness. Currently, the program is being used to assist dry cleaners, printers, and photo processors about 1,100 facilities. MA DEP reports that, after five years, compliance with the self-certification requirement has risen from 80 percent in the first year to approximately 98 percent.

Work in 2001

The A&P2 Office worked with EPA Headquarters offices and the MA DEP to create an ongoing partnership promoting ERP to other states. The partnership hosted several focus groups with state officials and met with individual state agencies. The partnership also published four documents about ERP, including a "Users Guide for Government Agencies."

Future Work

The partnership of A&P2, EPA HQ and MA DEP will continue promoting ERP to state agencies by:

Working with states and industry trade organizations

2001 Highlights

Hosted a regional focus group meeting for New England state officials.

Produced 4 documents explaining the ERP concepts.

Worked with the Connecticut Department of Environmental Protection (CT DEP) and the New Hampshire Department of Environmental Services (NH DES) to explore the potential for establishing ERP-type programs.

Supported Rhode Island in their ongoing adoption of ERP.

Analyzed ways to integrate ERP concepts into EPA sector-based strategies.

Contacts and Information

For documents on ERP, visit EPA's Environmental Permitting Clearinghouse at: www.epa.gov/permits

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to identify potential new sectors for ERP applications (in MA and other states).
Looking at the incorporation of ERP tools in other work in EPA New England's A&P2 Office.

Mercury Challenge for Hospitals

Minimizing the use of mercury-containing products in the health care sector

Environmental Problem

Widespread exposure to mercury is among the most serious environmental health risks in New England. Across New England, more than 80% of the inland waters have been contaminated with mercury. Experts estimate that medical and municipal incinerators are responsible for 30% of total mercury emissions. Medical facilities are sources of mercury in the environment because they use mercury in their equipment, including thermometers, and blood pressure cuffs.

2001 Highlights

Published a Mercury Challenge Directory that highlighted how 47 partners eliminated 1,120 pounds of mercury.
Conducted two workshops on improving environmental compliance at healthcare facilities.

In 1999, EPA New England responded to this problem by establishing the Mercury Challenge for Hospitals (Mercury Challenge) program to challenge New England medical facilities to eliminate mercury and/or mercury-containing waste by 2003. By 2000, 47 partners had joined the program.

Work in 2001

In 2001, EPA Headquarters and the American Hospital Association introduced a national Hospitals for a Healthy Environment (H2E) project. To avoid confusion and duplication, EPA New England discontinued its Mercury Challenge program and rolled its efforts into the national H2E project, adding all 47 of its Mercury Challenge partners and augmenting the national H2E listserv with New England's 160-person e-mail list.

The A&P2 Office also published a Mercury Challenge Directory that highlighted the 1,120 pounds of mercury eliminated by the 47 partners in New England and conducted two workshops for hospitals and health care facilities on environmental compliance.

Contacts and Information

National Hospitals for Healthy Environment
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Future Work

EPA New England will continue to encourage hospitals to join the national H2E program. EPA New England is also working with state agencies to plan future steps for the health care facility sector.

National Environmental Performance Track

Encouraging and recognizing environmental excellence through voluntary commitment

Environmental Problem

Regulators do not have the resources to assure compliance at all regulatory facilities. Additionally, laws and regulations do not adequately address all environmental problems (e.g., natural resource depletion, greenhouse gas emissions). A growing number of organizations are voluntarily implementing environmental management systems (EMSs) to address both their regulated and unregulated environmental impacts. By systematizing good business strategies and best management practices, EMSs help organizations reduce their environmental footprint, improve environmental compliance, optimize operational efficiency and improve their economic performance.

Launched in 2000, the National Environmental Performance Track program recognizes and rewards top environmental performers, in particular, those that have moved beyond compliance and attained superior levels of environmental performance through the implementation of an EMS. To qualify for Performance Track a facility must demonstrate that it has completed the following accomplishments:

- Adopted and implemented an environmental management system.
- Achieved specific environmental improvements in the preceding two years, and commit to continued improvement during its three year participation in the program.
- Made a commitment to public outreach and reporting.
- Established a record of sustained compliance with environmental requirements.

Work in 2001

Of the 250 Performance Track facilities nationwide, 33 facilities (covering 61 locations) are located in New England. In 2001, EPA New England held:

- Two application workshops to assist facilities interested in applying to the program (58 attendees from 30 organizations attended).
- The first semi-annual Performance Track Roundtable and Luncheon for New England members. This semi-annual event helps to deliver one of the important program incentives information

2001 Highlights

Thirty-three New England facilities have committed to 132 environmental improvements over the course of their three year participation in the Performance Track program. For example:

- 6 facilities have committed to reduce VOC emissions by 34,100 pounds.
- 20 facilities have committed to reducing their hazardous solid waste generation by 838,000 pounds.
- 25 facilities have committed to reducing their generation of non-hazardous solid waste by 4,130 tons.

sessions with senior EPA officials to share lessons learned and to improve the program.

A meeting with EPA Administrator Christine Todd Whitman and Regional Administrator Robert Varney to discuss EPA voluntary programs, with a particular focus on increasing energy efficiency.

To evaluate the effectiveness of Performance Track, EPA conducted 6 facility site visits to assess the implementation of the Performance Track program. While some areas for improvement were noted, no major issues were identified.

Future Work

In 2002, EPA New England will strategically target sectors that will benefit from the use of EMSs. The Performance Track facilities will also submit their first Annual Performance Reports, which will summarize the progress facilities make in meeting their performance commitments. Headquarters will analyze these environmental aspects and report on the environmental outcomes of the program. EPA New England will also write a summary of the environmental accomplishments of the New England Performance Track facilities and make these finding available to the public.

Contacts and Information

For more information about Performance Track, visit: www.epa.gov/performancetrack

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Storm Water

Maximizing awareness of expanded requirements under the National Storm Water Phase II Program

Environmental Problem

Storm water runoff is a significant source of chemicals, sediments, trash, and microbe contamination of New England waters. The national Storm Water Phase II program will reduce that contamination by applying requirements to an expanded number of communities, municipal facilities, and construction projects. Hundreds of smaller communities will have to apply for permits for the first time and develop comprehensive storm water management programs. Developers and construction firms will need permits for projects of one acre or larger (the current threshold is five acres). Municipal, state, and federal highway facilities, and wastewater treatment facilities will all need to apply for permits. The first compliance deadline for Phase II is March 2003.

Due to the large number of facilities and sites affected for the first time by Phase II, EPA New England is working to publicize both the requirements of the Phase II program, and practical solutions to meet them. The goal is to maximize the number of successful permit applications and quality of storm water plans.

Work in 2001

Beginning in 2000 and continuing in 2001, our efforts focused on helping states develop Phase II programs (including outreach components) and build relationships with regulated municipalities, companies, and organizations to spread information about the program. Specific accomplishments included the following:

Four introductory conferences for VT, ME, NH, and the Charles River Watershed Committee.

Eight workshops for publicly-owned wastewater treatment plants.

A seminar for EPA and state staff on optimal construction industry soil and erosion control practices.

Flyers and other handouts for outreach events.

A construction permitting decision tree to help contractors and developers sort out which storm water permits they need and where to get them (developed in partnership with the state agencies).

Future Work

In 2002 we will intensify outreach through:

Creating and distributing model storm water plans for highway garages and wastewater plants.

Five magazine articles on Phase II requirements.

Workshops for the construction sector and highway garages.

Presentations at meetings of relevant industry and public sector associations.

Due to the large number of affected facilities and sites, outreach will continue through 2004.

2001 Highlights

Conducted four meetings for communities in VT, ME, NH, and the Charles River Watershed Committee on ways to meet Phase II obligations.

Conducted eight workshops for publicly-owned wastewater treatment plants on how to plan and budget to meet Phase II requirements or apply for a no-exposure exclusion.

Contacts and Information

For more information about storm water visit:
www.epa.gov/region1/topics/water/stormwater.html

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List of Acronyms

A&P2	EPA New England's Assistance and Pollution Prevention Office
APWA	American Public Works Association
BMP	Best Management Practice
C/Us	Colleges and Universities
CEIT	EPA New England's Center for Environmental Industry and Technology
CET	Center for Ecological Technology
COD	Chemical Oxygen Demand
CSO	Combined Sewer Overflow
CT DEP	Connecticut Department of Environmental Protection
EHS	Environmental, Health and Safety
EMS	Environmental Management System
EPM	Environmental Management Plan
ERP	EPA New England's Environmental Results Program
ETV	EPA's Environmental Technology Verification Program
H2E	Hospitals for a Healthy Environment
HVAC	Heating, Ventilating, and Air Conditioning
IBM	International Business Machines, Inc.
IP	International Paper Company
MA DEP	Massachusetts Department of Environmental Protection
ME DEP	Maine Department of Environmental Protection
MPG	Miles Per Gallon
NEIWPC	New England Interstate Water Pollution Control Commission
NEPSI	National Electronic Product Stewardship Initiative
NERC	Northeast Recycling Coalition
NEWMOA	Northeast Waste Management Officials' Association
NH DES	Department of Environmental Services
NPDES	National Pollutant Discharge Elimination System
OES	EPA New England's Office of Environmental Stewardship's
P2	Pollution Prevention
R&D	Research and Development
RCRA	Resource Conservation and Recovery Act's
RI DEM	Rhode Island Department of Environmental Management
SBIR	Small Business Innovation Research
VT DEC	Vermont Department of Environmental Conservation
WFI	Waste Fuel Incinerator
XL	EPA's eXcellence in Leadership Project