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Project XL Progress Report Massachusetts Department of Environmental Protection — Environmental Results Program

In 1995, the U.S. Environmental Protection Agency (EPA) embarked on a series of innovative initiatives in an effort to test new ways to achieve greater public health and environmental protection at a more reasonable cost. Through Project XL, which stands for eXcellence and Leadership, EPA enters into specific project agreements with public or private sector sponsors to test regulatory, policy, and procedural alternatives that will produce data and experiences to help the Agency make improvements in the current system of environmental protection. The goal of Project XL is to implement 50 projects that will test ways of producing superior environmental performance with improved economic efficiencies, while increasing public participation through active stakeholder processes. As of November 2000, 50 XL projects are in the implementation phase and three XL projects are under development. EPA Project XL Progress Reports provide overviews of the status of XL projects that are implementing Final Project Agreements (FPAs). The progress reports are available on the Internet via EPA's Project XL Web site at *http://www.epa.gov/Project XL*. Hard copies may be obtained by contacting the Office of Policy, Economics, and Innovation's (formerly the Office of Reinvention) Project XL general information number at (202) 260-5754. Additional information on Project XL is available on the Web site or by contacting the general information number. The information and data presented in the January 2001 Progress Report is current as of January 2001.

Background

The Massachusetts Department of Environmental Protection (Massachusetts DEP) is the state agency responsible for protecting human health and the environment by ensuring clean air and water, the safe management and disposal of solid and hazardous wastes, the timely cleanup of hazardous waste sites and spills, and the preservation of wetlands and coastal resources. Massachusetts DEP established its Massachusetts Environmental Results Program (ERP) on the premise that a primary reason for non-compliance among small businesses is a lack of knowledge and understanding of the rules (including permit requirements). ERP is a multimedia, whole sector-based regulatory system that replaces case-by-case permits with industry-wide environmental performance standards and an annual certification of compli-

Major Milestones

April 23, 1996	December 23, 1996	October 6, 1998	March 31, 1999	October 6, 2008
Massachusetts DEP XL Proposal Submitted	Supplement to Proposal Submitted	Final Project Agreement Signed	Draft Addendum for Dry Cleaners Submitted	Final Project Agreement Terminates

ance. The project is intended to reduce resources expended by both DEP and industry in the permitting process and improve compliance through company flexibility and pollution prevention.

There are several components of ERP that contribute to the attainment of this goal and to the superior environmental performance specified by Project XL, and defined in the Final Project Agreement. The components of the ERP approach include annual certifications of compliance, clear performance-based standards written in plain language, pollution prevention assistance, identification of a more complete universe of firms under regulation, measuring and evaluating performance and environmental results, targeted compliance assistance within sectors, and increasing publicly available data.

One of the goals of the ERP is to use real-time data to reduce the number of state permits applied for, renewed, and issued, and to make more informed decisions on resource expenditures. Under ERP, senior-level company officials are required to annually self-certify that their company is, and will continue to be, in compliance with all applicable air, water, and hazardous waste management performance standards throughout their facility(ies). In addition, ERP companies are accountable for reporting any releases or exceedances of discharge or emission standards to the Massachusetts DEP. Violations are reported to the DEP and a "Return to Compliance Plan" is submitted which details specific facility corrective actions that the ERP company will take and timelines for getting back into compliance with appropriate standards.

Beginning with a demonstration project of 18 companies, industry representatives cooperated with Massachusetts DEP in establishing criteria for reporting compliance with stringent state performance and operating standards in certain industrial categories without developing permits for each facility. Between August 1996 and August 1997, the participating firms were allowed to make operational changes without new permits as long as they remained in compliance with the demonstration project's standards. In lieu of new permits, the participating companies were required to certify as to the status of their compliance with ERP standards and other requirements for their facility. The first three sectors to participate in ERP were dry cleaners, photo processors, and printers. The first annual certification for dry cleaners and photo processors occurred in Fall 1997, and printer sector regulations were promulgated in Spring 1998. The final "umbrella" project agreement for all of these sectors was signed on October 6, 1998.

The Massachusetts DEP is currently working to implement ERP in two more sectors – firms that discharge industrial wastewater (IWW sector) to sewers and firms installing new boilers (combustion sector). Massachusetts DEP expects to apply ERP to the combustion sector in Spring 2001, and the IWW sector in 2001.

Massachusetts DEP anticipates that ERP will result in superior environmental performance in the following ways: (1) ERP will enhance the outreach and training provided to participating companies that helps explain and clarify their environmental obligations; (2) ERP will convert the permit requirements to performance-based standards through accountability and certification procedures. Company officials will be aware of their environmental obligations *before* they make decisions about modifying equipment and operations, rather than at the end of a long, expensive permitting process. This gives companies more flexibility to choose cost-effective compliance strategies for themselves, thereby reducing the "time to market" for new products and removing regulatory obstacles to pollution prevention; (3) ERP will develop a performance-based system that is founded in measurement and evaluation, so that DEP can base its enforcement and compliance assistance efforts on real-time data and on the actual situations at a facility or conditions within a sector. DEP will be able to make informed resource decisions and provide compliance assistance to those sectors or facilities requiring little help to reach or go beyond compliance and target its enforcement actions at specific facilities that remain out of compliance with regulations.

Through a collaborative process, Massachusetts DEP developed Environmental Business Practice Indicators (EBPIs) as a key way to confirm facility performance in the three industry sectors currently in ERP. EBPIs are

industry-specific measures that provide a snapshot of a facility's environmental performance and are unique because they include measurement of adherence to traditional regulatory standards (e.g., level of compliance with labeling, record keeping, and monitoring, such as putting labels on barrels of hazardous waste), or "beyond compliance" measures (e.g., pollution prevention and reuse/recovery activities, such as posting a sign above a sink prohibiting the discharge of process chemicals into the sink). The goal in using EBPIs is to "benchmark" facility/sector performance and use that information to potentially shift agency resources and focus compliance assurance strategies. The number of EBPIs developed for each sector is different. Printers have 16 EBPI measures (including nine pollution prevention-specific measures), dry cleaners have 16, and photo processors have eight. The number of indicators is based on the complexity of the industry and the number of multimedia discharges.

DEP is using EBPIs, along with random field inspection findings, data reported on a facility's self-certification forms, and statistical sampling techniques, to measure and evaluate the environmental results of ERP and measure sector-specific performance. In establishing a sector-specific program, DEP uses field inspection data and statistical methodology to calculate a baseline that represents an industry-wide EBPI score "before" program startup. This "before" score is compared with "after" participation scores to determine individual facility performance, industry-wide performance, and indicator-specific performance. Rather than inspecting each ERP facility to establish a baseline understanding of the regulated universe, DEP uses statistics to determine the appropriate number of facilities to inspect. Inspection data from these facilities is also being compared with information supplied by those firms' annual certification forms to determine overall certification accuracy.

An analysis of the first year of the ERP has recently been completed by an EPA contractor. This study calculated facility scores and industry-wide scores (e.g., "before ERP" dry cleaner scores versus "after ERP" dry cleaner scores) and analyzed changes in specific behaviors (e.g., to compare the percentage of dry cleaners that perform leak inspections over time) to determine whether differences in scores or changes in before and after behavior are statistically "significant." The first year analysis compares results of data collected from facilities during random inspections *after* ERP to the answers on the certification forms from those facilities to determine the overall level of accuracy of the certification data. The findings of the study are discussed in more detail under Environmental Performance.

The evaluation may now be used to target the use of limited Massachusetts DEP resources. For example, if dry cleaners are not performing leak checks, Massachusetts DEP might increase outreach and then reanalyze this behavior. Or, if printers score higher than expected, Massachusetts DEP might conduct fewer inspections for printers.

The Experiment

This project will test a process to streamline permitting and reporting and improve and better measure compliance rates for several business sectors within the state of Massachusetts. The project reduces the reporting burden for affected facilities and the Massachusetts DEP while fostering superior environmental performance by identifying and encouraging opportunities for pollution prevention.

The Flexibility

The purpose of the umbrella FPA signed under Project XL is to establish an expedited EPA review process for any changes to Federal regulations or policies that Massachusetts DEP may propose to ensure effective ERP implementation. Subsequent phases of FPA development will appear as separately negotiated and signed sector-specific addenda to the umbrella FPA. These addenda will be developed only for those sectors that need flexibility in Federal regulations or policies. Only those ERP sectors for which a sector-specific addendum is required will be evaluated by EPA under Project XL.

According to the umbrella FPA, sector-specific addenda will identify:

- the flexibility Massachusetts DEP needs to smoothly implement ERP in a specific commercial or industrial sector;
- the superior environmental performance to be gained as a result of extending ERP to that sector; and
- the evaluation process to judge ERP's effectiveness in that particular sector.

Massachusetts DEP will convert most state-only permits to certifications under ERP. Currently, a facility is excluded from participating in ERP if it is subject to any of the following federally mandated permits: Federal Air Quality Operating Permits; National Pollutant Discharge Elimination System (NPDES) Surface Water Permits; Hazardous Waste Treatment, Storage, and Disposal Facility Licenses; and EPA Single-Source State Implementation Plan (SIP) Revisions. Therefore, EPA does not anticipate providing flexibility in these areas. The statutory programs, and the EPA offices administering the programs, that will affect the Massachusetts DEP XL project will be determined by the sector-specific addenda.

Promoting Innovation and System Change

Project XL provides EPA opportunities to test and implement approaches that protect the environment and advance collaboration with stakeholders. EPA is continually identifying specific ways in which XL projects are helping to promote innovation and system change. The innovations and system changes emerging from the Massachusetts DEP XL project are described below.

Using Self-Certification as a Means to Improve and Reward Compliance. A key component of ERP focuses on corporate accountability and self-evaluation. ERP provides a period of outreach and training for companies on compliance and other performance standards, after which the companies submit a statement in which they certify compliance with applicable environmental standards and that they will maintain compliance for the coming year. Self-certifications are signed under the penalties of perjury by the facility's owner, president, chief executive officer (CEO), or other high-ranking official. If a facility is not in compliance when it self-certifies, it must identify the existing violations and include a Return to Compliance Plan that specifies how and when compliance will be achieved. The ERP approach—with clear performance standards written in plain language, targeted compliance assistance, an emphasis on pollution prevention, and required annual self-certifi-cations—promises to yield environmental results superior to those achieved through traditional permitting. EPA and Massachusetts DEP acknowledge that some reasonable amount of time must be allowed to pass before final conclusions about a particular sector's response to self-certification can be drawn.

Approach for Evaluating Performance. The Massachusetts DEP's efforts to measure a sector's performance using EBPIs is one of ERP's most significant policy innovations. The number of EBPIs is different for each sector. Printers have 16 EBPIs (plus an additional nine pollution prevention measures), dry cleaners have 16, and photo processors have eight. The number of EBPIs is based on the complexity of the industry, the number of multimedia discharges, and the potential for beyond compliance opportunities. The use of EBPIs rather than the traditional "single dimension" measures of compliance (e.g., in compliance, out of compliance, or significant noncompliance) allows regulatory agencies to look at compliance more comprehensively and to offer the opportunity to recognize and potentially encourage "beyond compliance" techniques for industry leaders.

Project Commitment Summary

This section and the environmental performance section will summarize progress made in meeting commitments described in sector-specific addenda to the Massachusetts DEP FPA. Below is a summary of the ERP commitments in the initial umbrella project agreement.

Commitment	Status
Provide clear performance standards and compliance assistance to companies in the participating sectors through outreach and technical assistance.	DEP established workgroups of industry and government representatives that worked to formulate industry performance standards for the dry cleaning and photo processing sectors. As part of ERP, DEP developed Environmental Business Practice Indicators (EBPIs), industry-specific measures that provide a snapshot of a facility's environmental performance. These standards, which can be regulatory requirements or "beyond compliance" measures, were derived using compliance inspection findings and certification forms for each of the participating sectors. DEP is using the EBPIs to measure and evaluate ERP compliance and environmental results. There are 16 EBPIs for printers, 16 for dry cleaners and eight for photo processors. The EBPIs compliance requirements have been simplified in an easy-to-read format in the industry workbook and compliance statement.
	In addition, DEP has promulgated regulations with extensive review by the public and industry sectors. During the first year of implementation to each sector, DEP conducted workshops to provide guidance and assistance to industry representatives in understanding and complying with the standards.
	DEP's certification requirements, well-designed workbooks, and outreach efforts have helped firms to establish compliance management procedures, accountability and records.
Promote corporate accountability and self-evaluation of environmental performance by requiring annual compliance self-certification.	Under ERP, Massachusetts DEP established a self-certification process for three sectors. ERP provides the compliance assistance tools that enable businesses in the participating sectors to determine what rules are applicable to them and what is required to comply. Because firms must certify annually, the ERP forces companies to conduct an environmental review annually and ensures that firms are in compliance more frequently. ERP includes similar components as an environmental management system where compliance obligations are established and audited on a regular basis. Because the certification forms require the signature of a high-level owner or manager, the process has improved senior management's attention to environmental management.
Encourage the adoption of pollution prevention techniques via sector-specific guidance and implementation manuals and inclusion in performance standards (EBPIs).	DEP has developed workbooks that provided step-by-step guides to compliance and pollution prevention techniques. These outreach efforts were developed through extensive interaction with related industry experts. In the dry cleaning sector, the workbook was translated into Korean to accommodate the large percentage of Korean-owned businesses.
	Nine specific pollution prevention (P2) measures have been incorporated into EBPIs for the printing sector.

Commitment	Status
Increase compliance assurance and enforcement through random inspections, targeting deficient certifiers, and identification of the universe of firms in each sector.	ERP's strategy to ensure compliance includes continued field presence by way of targeted and random inspections, review and analysis of certification data (including Return to Compliance forms), and using the agency's enforcement protocols as appropriate. ERP targets inventoried entities that have not filed certifications, firms whose certifications are incomplete or technically deficient, and companies that have been the subject of complaints. From the program's inception to July 1999, approximately 160 Notices of Non-Compliance were issued to dry cleaners and photo processors that failed to certify. (*Learning from Innovations in Environmental Protection, Research Paper Number 1, Evaluation of the Massachusetts Environmental Results Program*, by Susan April and Tim Greiner of Kerr, Greiner, Andersen and April, Inc., prepared for the National Academy of Public Administration, dated June 2000, p. 34.) Most facilities responded to the actions. In addition, there have been two high-visibility enforcement actions taken as a result of questions raised in DEP's review of annual certifications.
	Another benefit to improved compliance has been the increase in the number of facilities under regulation. In DEP's initial outreach work, the universe of firms under the department's oversight increased by approximately 340 percent. The inclusion of a more complete universe of firms in ERP leads to greater sector-wide compliance.
Conduct an evaluation of the program to measure and evaluate compliance and environmental results.	Two studies performed on the printing sector [related to the ERP predecessor Massachusetts Printing Partnership (MP2) program] show significant improvements in compliance practices, pollution prevention practices, and quantifiable emission reductions. (*Learning from Innovations in Environmental Protection, Research Paper Number 1, Evaluation of the Massachusetts Environmental Results Program*, by Susan April and Tim Greiner of Kerr, Greiner, Anderson & April, Inc. prepared for the National Academy of Public Administration dated June 2000 p.27, 53.)
	In addition, the first year analysis of the ERP program with respect to the dry cleaning and photo processing sectors has recently been completed by a DEP contractor. Its findings suggest significant improvements in the dry cleaning sector. This analysis compares EBPIs from pre- and post-ERP inspections and determines facility scores and industry-wide scores to track changes in indicator-specific behaviors. It also compares results of data collected from facilities during random inspections *after* ERP to the answers on the certification forms from those facilities to determine the overall level of accuracy of the certification data. This evaluation will be used to strategically focus Massachusetts DEP resources.

Commitment	Status
Make the certification information available to the public.	The original intent of the ERP was to operate the self-certifications electronically, thus eliminating or minimizing full-time equivalent resources required for certification review and facilitating the process of providing public access to these certifications. However, barriers to security, consistent technology accessibility, and signatory verification prevented the electronic mechanism.
	Information on the progress of ERP is posted on the Massachusetts DEP Web site: *www.state.ma.us/dep/erp*. The site includes publications, ERP sector regulations and certification packets, press releases, and other background material. It does not include specific information on facilities participating in the program or any data from the certifications.

Environmental Performance

In May 2000, Massachusetts DEP presented its own preliminary assessment of the ERP program to EPA. The preliminary graphical information and supporting data that are presented below on the status of ERP are taken from the May 2000 Massachusetts DEP presentation.

This section summarizes progress in meeting the environmental performance described in sector-specific addenda to the Massachusetts DEP FPA. Specific measurements of environmental performance before and after undertaking the XL project will be presented in these addenda.

In general, the Massachusetts DEP XL project intends to achieve superior environmental performance by

- promoting pollution prevention through outreach and assistance;
- giving Massachusetts DEP a better understanding of regulated industries; and
- increasing the number of facilities operating within Massachusetts DEP's regulatory programs.

Overall, Massachusetts DEP has successfully met their commitments through the implementation of the components listed above to achieve superior environmental performance. ERP provided extensive outreach and technical assistance to participating sectors to promote pollution prevention and successfully eliminated a significant number of permits in the printing sector. As a result, and because the dry cleaning and photo processing sectors required few permits originally, the resources that may have become available with reduced permitting needs went unrecognized. However, several highly visible enforcement actions were taken and DEP maintained an active "field presence."

The implementation of ERP dramatically increased the number of facilities in each of the sectors that are now under DEP's regulatory net. DEP applied the ERP to three small business sectors for which it had little information. DEP's work with trade associations and sector stakeholders increased the universe of firms under the Department's oversight by more than 340 percent (See Table 1). It is estimated that the ERP allows DEP to track environmental performance for over 90 percent of the firms in a sector compared to less than 33 percent prior to ERP. To date, the ERP program has over 2300 participating companies – approximately 1300 printers, 650 dry cleaners, and 550 photo processors. The number of companies exceeds those that were traditionally regulated by DEP prior to the implementation of ERP.

Massachusetts DEP anticipated superior environmental performance by converting permit requirements into industry-wide performance standards in the printing, dry cleaning, and photo processing sectors. For example, Massachusetts DEP estimates that compliance with ERP standards will lead to an estimated 43 percent reduction in perchloroethylene emissions (a total of 500 tons) from Massachusetts dry cleaners each year, will yield significant reductions in the use of smog-forming solvents and alcohol used by commercial printers, and will reduce wastewater discharges of silver by 99 percent from photo processors.

An analysis of the first year of the ERP has recently been completed by a DEP contractor. This study uses the EBPIs to measure, track, and assess program results and sector performance. Specifically, it compares baseline data (which include EBPIs) collected during random inspections *before* ERP certification to data collected during random inspections *after* outreach and certification under ERP. Facility scores and industry-wide scores (such as "before ERP" dry cleaner scores versus "after ERP" dry cleaner scores) have been calculated. The graphics to the right present aggregate EBPI analysis for each sector. In the photo processing sector, the report found that the average score after the program implementation was higher than baseline, whereas the aggregate EBPI scores for the dry cleaning sector remained the same. However, using an aggregate of all certification questions (not just EBPIs), the average score for the dry cleaning sector did go up after program implementation.

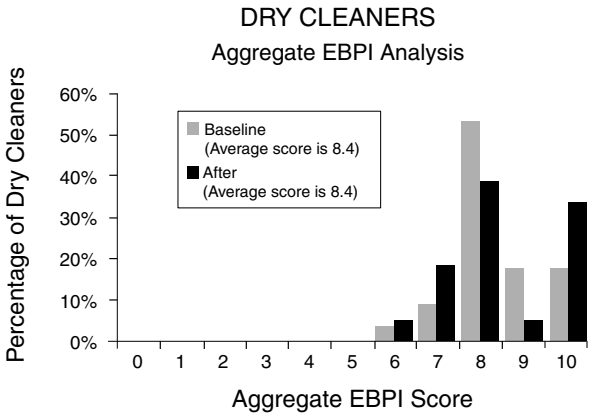
In addition to calculating facility and industry wide scores, the first year analysis included an accuracy analysis. It compares results of data collected from facilities during random inspections *after* ERP to the answers on the certification forms from those facilities to determine the overall level of accuracy of the certification data. In the dry cleaner sector, there is agreement between the certification form and the inspector 76 percent of the time.

Below is a summary of environmental performance improvements recorded in recent studies on the printing sector. Other than the first year analysis of ERP (mentioned above), there is no comprehensive study regarding the impact of ERP on the dry cleaning and photo processing sectors.

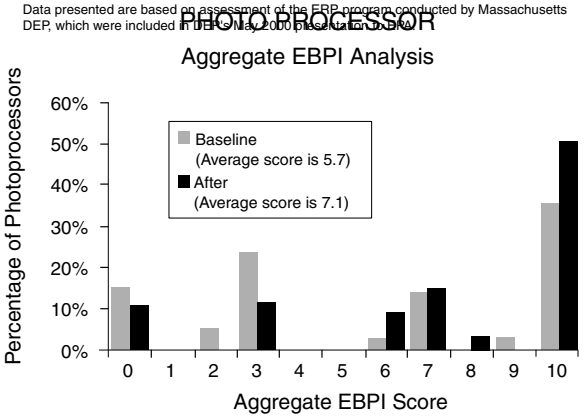
TABLE 1: ERP UNIVERSE IDENTIFICTION

SECTOR	DEP-IDENTIFIED UNIVERSE PRE-ERP	DEP-IDENTIFIED UNIVERSE POST-ERP
Printers	~250	~1100
Dry Cleaners	~30	~600
Photo processors	~100	~500
Total	~380	~2200

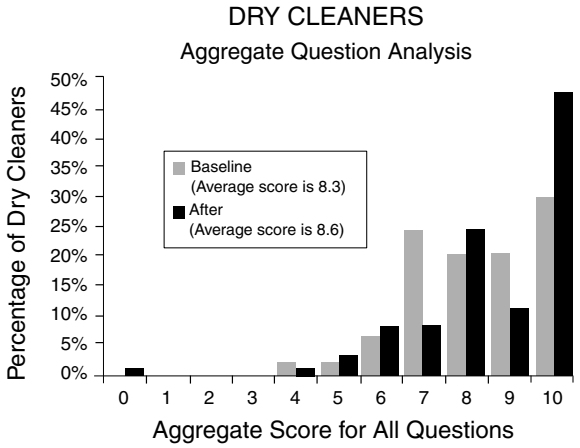
(Learning from Innovations in Environmental Protection, Research Paper Number 1, Evaluation of the Massachusetts Environmental Results Program, by Susan April and Tim Greiner of Kerr, Greiner, Andersen and April, Inc., prepared for the National Academy of Public Administration, dated June 2000, p. 27.*)*



Data presented are based on assessment of the ERP program conducted by Massachusetts DEP, which were included in DEP's May 2000 presentation to EPA.



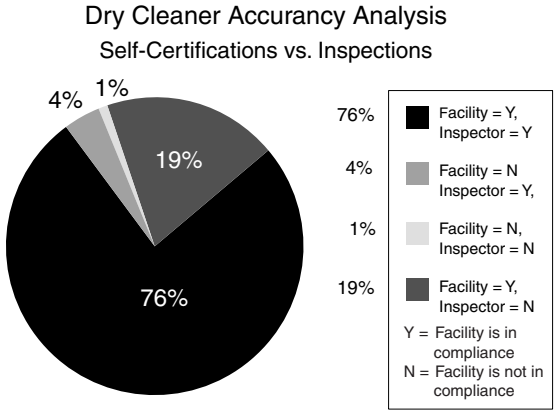
Data presented are based on assessment of the ERP program conducted by Massachusetts DEP, which were included in DEP's May 2000 presentation to EPA.



Data presented are based on assessment of the ERP program conducted by Massachusetts DEP, which were included in DEP's May 2000 presentation to EPA.

Environmental Performance Improvements in the Printing Sector

Information provided in the next four bullets of this section was obtained from *Learning from Innovations in Environmental Protection, Research Paper Number 1, Evaluation of the Massachusetts Environmental Results Program*, by Susan April and Tim Greiner of Kerr, Greiner, Andersen and April, Inc., prepared for the National Academy of Public Administration, dated June 2000, (pp. 27-28).



Data presented are based on assessment of the ERP program conducted by Massachusetts DEP, which were included in DEP's May 2000 presentation to EPA.

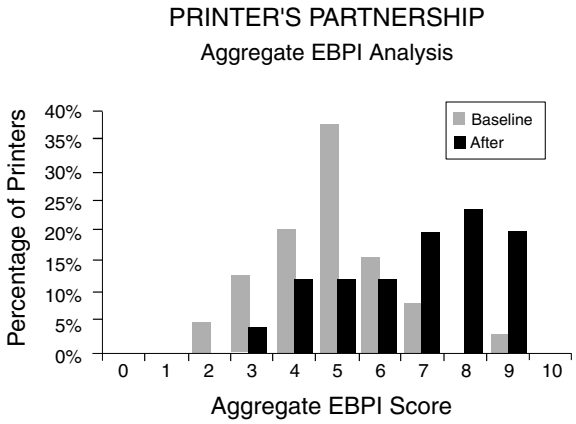
- ERP has increased the universe of regulated firms from approximately 250 pre-ERP to 1100 post-ERP. Of these 1100, roughly 900 have completed first year certifications.

The primary environmental pollutants from the printing sector come from silver in wastewater, ink-contaminated cleanup sludge, paper and cleanup towels, and volatile organic compound (VOC) emissions from solvent-based cleansers. Although there have been two studies on the printing sector [focusing on the Massachusetts Printing Partnership (MP2), the predecessor to ERP printing sector rollout] neither quantify pollutant reductions related to silver in wastewater or VOC emissions. However, the studies found that:

- Firms that participated in the MP2 partnership showed dramatic environmental protection improvements. These firms tended to install more efficient silver recovery systems, reduce the disposal of hazardous waste with solid waste, eliminate practices of washing ink-saturated rollers in sinks, and reduce VOC emissions.
- Fifty-four percent of participants indicated that the newly designed workbook influenced their environmental practices.
- On average, environmental performance at facilities that certified was about 40 percent better than those that did not certify (based on a random sample).

DEP has estimated VOCs from printers will drop by 10 percent statewide. Using a baseline total emissions of 1688 tons per year from small printers pre-ERP, ERP is predicted to cut VOCs by approximately 168 tons annually.

The graphic to the right displays the analysis of aggregate EBPI scores for the printer sector based on MP2. The graphic shows the comparison of the aggregate EBPI scores for printers before the partnership to the aggregate scores after the partnership.



Data presented are based on assessment of the Massachusetts Printers Partnership program conducted by Massachusetts DEP, which were included in DEP's May 2000 presentation to EPA.

Stakeholder Participation

Massachusetts DEP worked to ensure the involvement of key stakeholders and the general public in ERP development.

When state agencies propose regulations for promulgation, the Massachusetts Administrative Procedures Act requires them to give public notice of the regulations' availability for review and the dates, times, and locations

of public hearings. Massachusetts DEP was required to follow this procedure when promulgating ERP regulations for dry cleaners, photo processors, and commercial printers and will also give public notice in the future when proposing regulations for other sectors.

Massachusetts DEP developed ERP with the active participation of its ERP Design Team, comprised of representatives from EPA, other government entities, environmental advocacy groups, business and industry, consulting firms, and the legal community. For more than a year during the development of the project, members of the Design Team met weekly to review and comment on various decision and discussion documents.

Massachusetts DEP kept the ERPs Design Team apprised of its efforts to obtain Project XL designation for the program and intends to continue to involve the group. Massachusetts DEP also provides the general public access to information about the ERP XL project development process. Massachusetts DEP published notices in several major newspapers and on Massachusetts DEP's Web site (*www.state.ma.us/dep*) inviting the public to participate in the January 1998 Design Team meeting that served as the kickoff for public review of and comment on the umbrella FPA. The FPA document itself was published on Massachusetts DEP's Web site.

The Design Team continues, although less frequently, to play an integral role in the function and implementation of the ERP program. Massachusetts DEP has also initiated a new management system by having sector managers for each of the sectors currently involved in ERP identify appropriate stakeholders that need to be involved in the development of industry performance measures for their specific sector. With the sector managers in place, Massachusetts DEP can effectively involve the general public as well as key stakeholders in the development of ERP. Proposed sector-specific regulations and draft sector-specific addenda will be made publicly available, and interested stakeholders will be invited to provide input.

Six-Month Outlook

Key focus areas for successful implementation of the FPA over the next six months include:

- expansion of ERP to firms installing new boilers (combustion sector);
- determination on sector-specific addendum for dry cleaner sector;
- expansion of ERP to include the IWW sector (within the next year); and
- continuing analysis of EBPI data for all sectors.

Project Contacts

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- Martha Curran, U.S. EPA, Region 1, (617) 918-1802.
- Ted Cochin, U.S. EPA, Office of Policy and Reinvention, (202) 260-0880.

Information Sources

The information sources used to develop this progress report include (1) the FPA for the Massachusetts DEP XL project; (2) an ERP brochure and report entitled *Evaluation of the ERP Demonstration Project* from the Massachusetts DEP Web site; (3) Project XL background information and a press release dated October 6, 1998, from the U.S. EPA Project XL Web site; (4) *Learning from Innovations in Environmental Protection, Research Paper Number 1, Evaluation of the Massachusetts Environmental Results Program,* by Susan April and Tim Greiner of Kerr, Greiner, Anderson & April, Inc., prepared for the National Academy of

Public Administration dated June 2000; (5) the December 1999 *Project XL Progress Report Massachusetts Department of Environmental Protection* (EPA 100-R-00-013); and (6) Massachusetts DEP Environmental Results Program (ERP) briefing presented by Steve DeGabriel, Director, Business Compliance Division, Bureau of Waste Prevention, Massachusetts DEP, May 2000.

Glossary

Air Emissions: Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities; from residential chimneys; and from motor vehicle, locomotive, or aircraft exhausts.

Air Emission Standard: The maximum amount of air-polluting discharge legally allowed from a single source.

Baseline: The measure by which future environmental performance can be compared.

Discharges: Flow of liquid or chemical emissions from a facility into water, air, or soil.

Environmental Business Practice Indicators (EBPI): Industry-specific measures that provide a snapshot of a facility's environmental performance.

Final Project Agreement (FPA): The FPA outlines the details of an XL project and each party's commitments. The project's sponsors, EPA, state agencies, tribal governments, other regulators, and direct participant stakeholders negotiate the FPA.

Hazardous Waste: By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. These wastes possess at least one of four characteristics—ignitability, corrosivity, reactivity, or toxicity—or appear on special EPA lists.

Massachusetts Printers Partnership (MP2): A DEP-industry partnership established in 1995 that focused on increasing compliance in the printer sector. This voluntary participation program worked to develop plain-language workbooks, conduct assistance workshops throughout the state, and measure the results of outreach through a set of performance indicators. The Massachusetts DEP partially modeled the ERP on MP2.

Media: Specific environments–air, water, soil–which are the subject of regulatory concern and activities.

National Pollutant Discharge Elimination System (NPDES): A provision of the Clean Water Act that prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or a tribal government on an Indian reservation.

Perchloroethylene: A manufactured chemical that is widely used for dry cleaning of fabrics and for metal degreasing. It is also used to make other chemicals and is used in some consumer products. Other names for perchloroethylene include tetrachloroethylene, PCE, and tetrachloroethene.

Permit: An authorization, license, or equivalent control document issued by EPA or an approved state agency to implement the requirements of an environmental regulation.

Reinvention Initiatives: Programs designed by EPA to promote innovation to achieve greater and more cost-effective public health and environmental protection.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of a hazardous or toxic substance.

State Implementation Plans (SIP): EPA-approved state plans for the establishment, regulation, and enforcement of air pollution standards.

Self-certification: The central concept of self-certification is that the regulated community should internally certify their compliance with requirements, subject to regulator verification, as a substitute for permit issuance and some compliance reporting.

SIP Revision: A revision of a State Implementation Plan altered at the request of EPA or on a state's initiative.

Solvents: Substances, usually liquid, that can dissolve other substances.

Wastewater: The used water from a home, community, farm, or industry that contains dissolved or suspended matter.