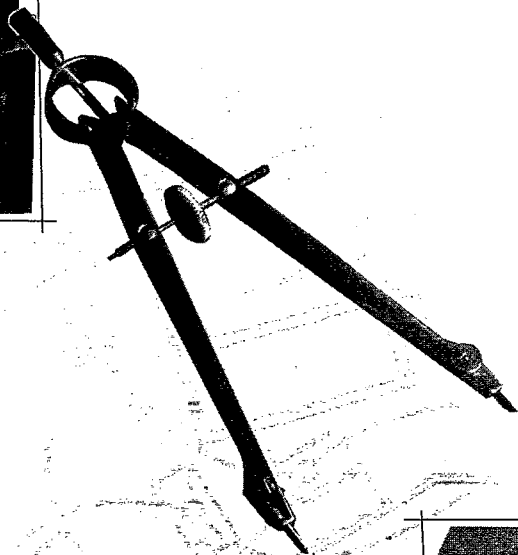
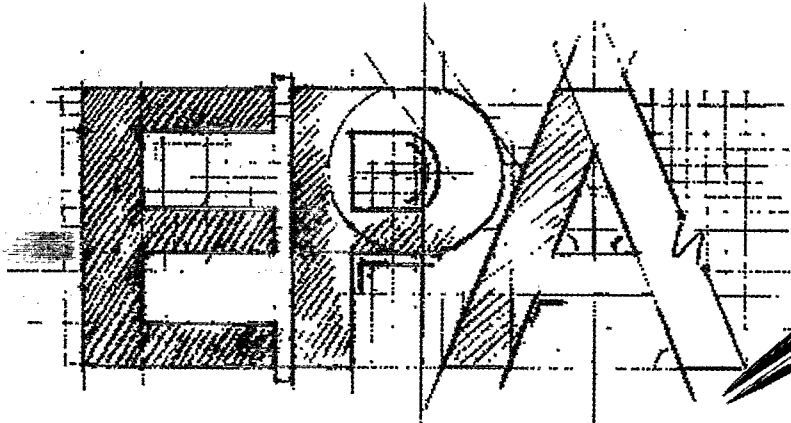




The Changing Nature of Environmental and Public Health Protection

An Annual Report on Reinvention

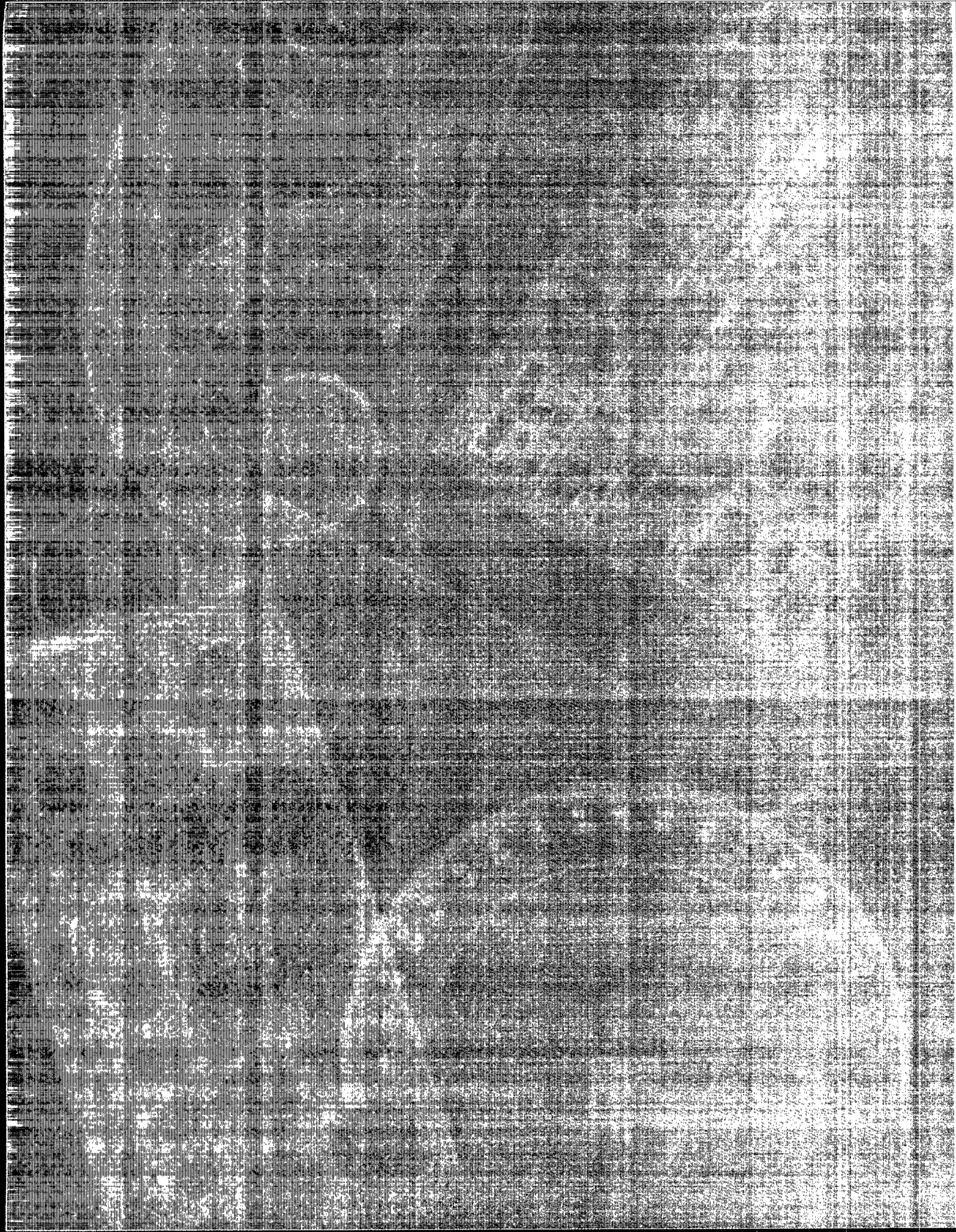


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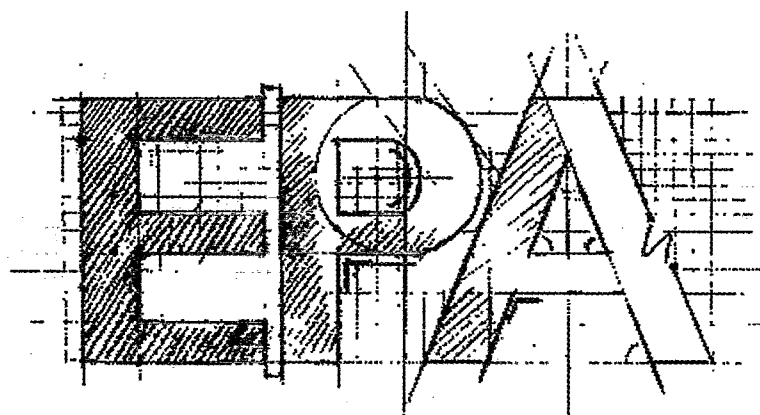
SECTION

VP. MULLION



THE CHANGING NATURE OF ENVIRONMENTAL AND PUBLIC HEALTH PROTECTION

An Annual Report on Reinvention



MARCH 1998

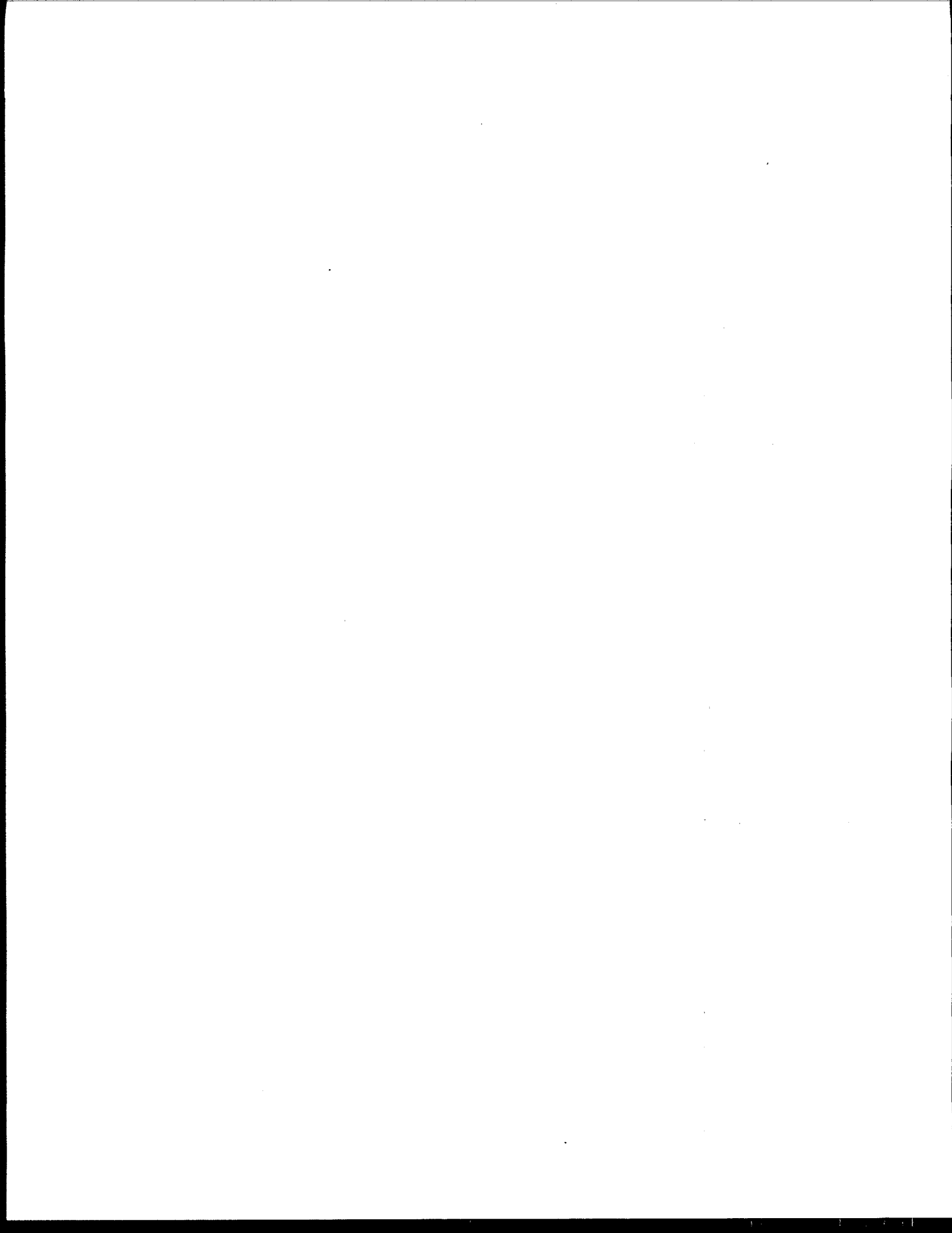


TABLE OF CONTENTS

2	EXECUTIVE SUMMARY	25	SUPPORTING THE PUBLIC'S "RIGHT-TO-KNOW"
5	INTRODUCTION	26	Consumer Labeling Initiative
7	A STRONGER PARTNERSHIP WITH STATE AGENCIES	27	Expansion of the Toxic Release Inventory
7	A Framework for Collaboration	27	A Response to Beach Safety Concerns
9	Measures to Track Environmental Results	27	Better Drinking Water Information for Consumers
9	Dialogue on Key Policy Issues	29	NEW APPROACHES TO ENFORCEMENT AND COMPLIANCE
10	SECTOR-AND COMMUNITY-BASED APPROACHES	29	More Choice in Measuring Compliance
10	An Industry Commits to Improving Environmental Performance	30	Meeting Special Compliance Assistance Needs
11	Addressing Industry Needs in Rulemaking	31	Engaging Local Law Enforcement
11	Empowering Communities	31	Using Information To Boost Compliance
14	INCENTIVES TO ENCOURAGE BETTER PERFORMANCE	31	Encouraging Self-Policing
14	Flexibility for Going Beyond Compliance	32	A Comprehensive, Corporatewide Focus
16	Less Reporting for Proven Performers	33	CUTTING RED TAPE AND REGULATORY BURDEN
16	Public Recognition	34	Avoiding a Patchwork of Regulatory Requirements
18	MARKET-BASED FORCES GUIDE ACTION	35	Getting Safer Products to Market
18	A Marked Increase in Trading	36	Clarification for Waste Managers
20	A Tax Fix	37	Superfund Reform
21	Fair Pricing	37	A Common Sense Approach for a Common Problem
22	MANAGING IN THE INFORMATION AGE	38	Creative Permitting
23	Data Standards	38	Breaking Through New Technology Barriers
24	Universal Access to Electronic Reporting	39	CONCLUSION
24	Reengineering Environmental Database Systems	40	APPENDIX: STATUS OF REINVENTION PROJECTS
24	Related Initiatives		

EXECUTIVE SUMMARY

For 3 years, EPA Administrator Carol Browner has led EPA in pursuing an unprecedented agenda for consistently delivering cleaner, cheaper, smarter results from environmental and public health protection programs. This agenda was developed in response to Vice-President Gore's challenge to all federal agencies to reinvent government so that it works better and costs less for the American people. It involves streamlining and innovating within proven programs and testing more integrative, holistic approaches with the potential to better address unresolved problems that threaten our people and the natural environment.

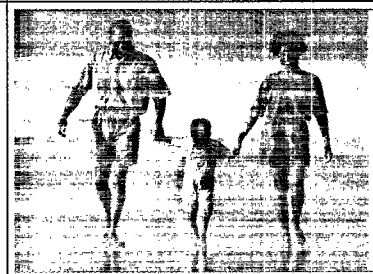
EPA's reinvention agenda comes at a time when a variety of forces are creating pressure for changes to the nation's environmental regulatory system. This year's report explains some of the most significant changes that are taking place in environmental protection as the twenty-first century draws near, and what these changes mean for the way EPA does business. The results — the practical effects for businesses, communities, and individuals — are highlighted below.

GREATER PUBLIC ACCESS TO INFORMATION

Because Americans have a right-to-know about environmental risks in their communities and because an informed, knowledgeable public can play a meaningful role in solving tough problems, EPA has expanded public access to environmental information.

Expanded Reporting on Toxic Releases — Another 6,400 facilities, representing seven additional industry sectors, are reporting information on toxics released into their communities through an expansion of the nation's Toxic Release Inventory.

Informing Citizens About the Safety of Drinking Water and Swimming Conditions — Community water suppliers soon will be required to report to their customers on whether their drinking water meets federal public health standards while new assistance for the States aims to strengthen water monitoring and public advisory programs for beaches and coastal areas.



Established "Plain English" Labeling Requirements — New labeling requirements for the pesticides industry provide consumers with

clearer information for selecting and properly using pesticides and other common household products in and around their homes.



MORE FLEXIBILITY TO OBTAIN BETTER RESULTS

In an effort to obtain better results, EPA is providing businesses and communities with more flexibility in how they fulfill their public health and environmental protection responsibilities. By conditioning this offer on a record of proven performance and public accountability, EPA provides assurance that strong protection will be maintained *and* creates an incentive for facilities to improve performance.

Testing New Ideas — Through Project XL, EPA is working with 27 companies to develop or test innovative management strategies that offer promise for getting better environmental results than what would be achieved under current law.

Promoting Trading — New policies and programs allow and promote market-based trading as a more cost-effective, environmentally protective option for helping businesses and communities address a variety of problems, such as smog, habitat loss and water pollution.

Offering Options in Rulemaking — The nation's first ever integrated (or multimedia) environmental rule, just issued for the pulp and paper industry, allows companies to delay compliance with more stringent water pollution control requirements if they commit to installing more advanced technologies.



STRONGER PARTNERSHIPS

Because many of today's problems cannot be addressed through regulatory action alone, EPA is reaching out to diverse stakeholders to bring all available expertise and resources to bear on the job of protecting public health and the environment.

Established New Working Relationship with State Agencies — EPA worked with states, its most critical partners, to create a new framework for jointly collaborating on environmental priority-setting and decision-making to ensure that public health and the environment are best protected. Participation in the National Environmental Performance Partnership System rose from 6 pilot states in 1996 to a majority of 30 states participating last year.

Implementing Sector-Based Approaches — Through the Common Sense Initiative, EPA reached an agreement with the metal finishing industry whereby firms obtain regulatory relief and other benefits in exchange for going beyond compliance — this action, potentially affecting 11,000 metal finishing shops nationwide, could voluntarily cut toxic emissions from the industry by up to 75 percent compared to 1992.

Encouraging Voluntary Action — A new voluntary agreement with the car industry means that, later this year, all vehicles sold in the Northeast and District of Columbia will be designed to emit 70 percent less pollution. By 2001, these vehicles will be available throughout the country, providing Americans with safer, cleaner air.



Supporting Community Brownfields Cleanup and Restoration — Cleanup of Brownfields — abandoned, contaminated urban property — has accelerated with over \$24 million in seed grants and technical assistance awarded to 121 communities. A new tax incentive and an additional \$300 million investment announced last year will help revitalize some 5,000 more communities in the future.

MORE COMPLIANCE ASSISTANCE

With 1997 bringing the largest fines ever collected in the history of the Agency, EPA's record of enforcing against irresponsible polluters is stronger than ever before. At the same time, EPA is making it easier to comply with environmental regulations through targeted compliance assistance programs. EPA recognizes that most businesses and communities want to operate in an environmentally responsible manner — in some cases, they just need extra help or incentive to succeed.

Compliance Assistance Centers —

Compliance assistance centers are being established or expanded to provide small communities and businesses in eight sectors with quick, easy access to information on how to control and prevent pollution.

Providing Incentives for Finding and Fixing Problems — To promote environmental compliance, EPA is reducing penalties for companies (not engaged in criminal activity) that show

good faith towards finding, publicly disclosing, and correcting environmental problems. To date, 247 companies — ranging in size from Fortune 500 companies to small businesses — have voluntarily disclosed violations at more than 760 facilities.

Support for Local Environmental Enforcement — To help communities guard against environmental violations, EPA is working with local law enforcement agencies to support joint investigations and to increase understanding of environmental crimes.

LESS PAPERWORK AND RED TAPE

To ensure that environmental managers in the public and private sectors can focus on the greatest risks, EPA is simplifying and reducing paperwork and regulatory requirements that detract from public health and environmental protection.

Eliminated

Unnecessary

Requirements — EPA has eliminated more than 1,300 pages of environmental requirements representing nearly 20 million hours of regulatory burden — that's the equivalent of returning more than a half million work weeks, with an estimated value of \$600 million, back to businesses and communities for more productive use.

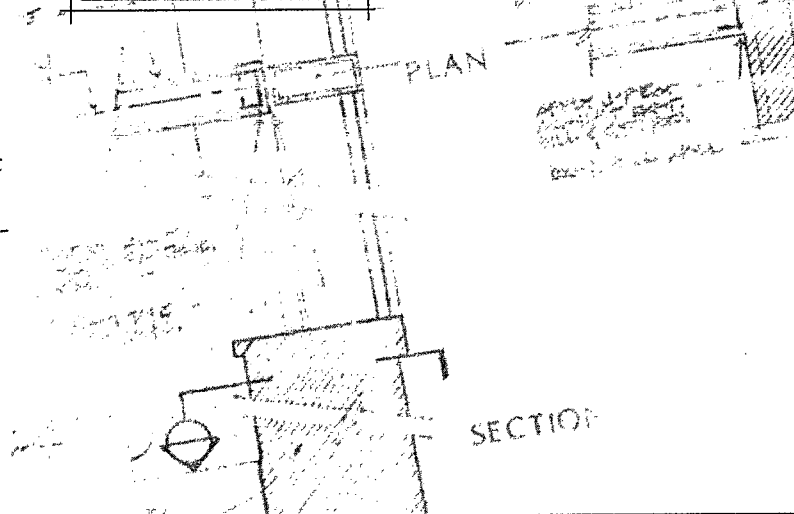
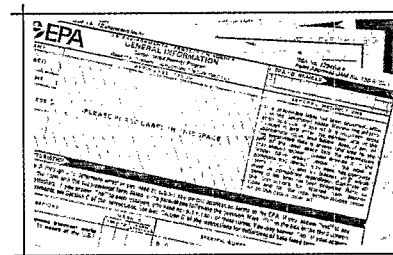
Avoided Issuing Millions of New Permits — A common sense, risk-based approach to storm water management prevented millions of small businesses and communities from becoming subject to new permitting requirements.

Speeding the Cleanup of Toxic Waste —

Through aggressive administrative action, the Superfund Program has cleaned up twice as many contaminated sites in the past five years than in the first 12 years of the program. Cleanups are now 20 percent faster and less costly.

Increasing Efficiency Through Electronic Reporting —

To modernize the current paper-based reporting system, EPA is working with the states to provide all regulated facilities with a more efficient electronic option for reporting regulatory information within five years.





INTRODUCTION

...to protect human health and to safeguard the natural environment.

This mission for the U.S. Environmental Protection Agency (EPA or the Agency) is the driver for reinvention — a broad-based, agency-wide strategy to consistently deliver cleaner, cheaper, smarter results from public health and environmental protection programs. At EPA, reinvention means streamlining and innovating within proven programs, but it also means testing more integrative, holistic approaches with the potential to better address unresolved problems that threaten our people and the natural environment. While such efforts have long been a priority for the Agency, in recent years, they have intensified as a result of the Clinton Administration's commitment to reinventing government. Three years ago, in March 1995, President Clinton, Vice-President Gore, and EPA Administrator Carol Browner announced an ambitious reinvention agenda for EPA aimed at improving the efficiency and effectiveness of environmental programs.

Nationally, environmental programs are as varied as the risks they are intended to address — they are voluntary and mandated, technology-based and market-driven, targeted and broadly applicable. They involve conducting scientific research, setting numeric and qualitative standards for environmental quality and public safety, issuing pollution control permits and encouraging pollution prevention, registering pesticide products, collecting data to monitor conditions and assure compliance with environmental laws, and when necessary, taking enforcement actions against polluters. Collectively, environmental programs — managed jointly in cooperation with state and local environmental agencies — form what is generally referred to as the nation's environmental protection "system."

For more than a quarter century, this system has served the American people well, significantly improv-

ing conditions in communities throughout the country. Today, our air, land, and water are safer and cleaner despite continued population growth and economic expansion. Nevertheless, lingering and emerging risks still challenge environmental managers — polluted runoff continues to degrade water quality; urban sprawl reduces natural habitat and increases air pollution; increases in carbon dioxide emissions contribute to global warming; and toxic chemicals increase cancer risks and disrupt natural biological systems.

These challenges reinforce the need to continuously improve the current system so that human health and the natural environment are protected as fully as possible — without imposing unnecessary costs and regulatory burden on society. But other factors are creating pressure for change as well. Rapid technological advancements provide tools for detecting, evaluating,

CHANGING THE SYSTEM — OPINIONS BEGIN TO CONVERGE

In the past few years, many organizations have come forth with very specific recommendations on ways to improve the nation's environmental protection system. Among the most notable are two independent organizations—the National Academy of Public Administrators (NAPA) and the Enterprise for the Environment (E4E).

NAPA, a nonprofit organization chartered by Congress that assists federal, state, and local governments in improving their performance, has published two consecutive reports on environmental regulatory reinvention. In a 1995 publication called *Setting Priorities, Getting Results: A New Direction for the Environmental Protection Agency*, NAPA underscored the need to move toward a performance-based system that focuses on results rather than end-of-the-pipe controls. NAPA recommended that EPA design its programs to specify desired results, but allow businesses, states, and communities to decide how to achieve that level of performance. A followup report, *Resolving the Paradox of Environmental Protection: An Agenda for Congress, EPA, and the States*, released in September 1997, assesses progress made toward a performance-based system since 1995. Several of EPA's flagship reinvention initiatives, such as Project XL, the Common Sense Initiative, and the National Environmental Performance Partnership System, are commended for providing useful lessons that can shed light on strategies for broader innovation. However, noting that the results of these initiatives have yet to produce major changes in environmental programs, NAPA made recommendations aimed at accelerating progress.

Another perspective on change was developed by the Enterprise for the Environment (E4E), a broad-based, bipartisan group with representatives from government, business, and the environmental community, chaired by former EPA Administrator William Ruckelshaus. In its final report, *The Environmental Protection System in Transition: Toward a More Desirable Future*, E4E emphasized the need for an evolutionary "stepping stone" approach to changes in environmental protection. Based on a consensus vision for the future reached during two years' work, E4E called for a 21st century system of protection that is performance-based, information-rich, flexible, accountable, open, and transparent to stakeholders.

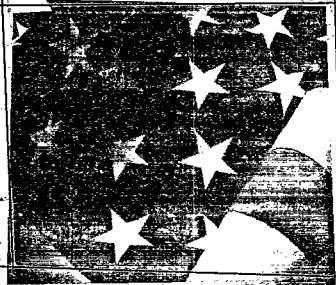
While they showed some differences of opinion, in general, these two organizations identified many of the same priorities that EPA is focused upon. Their views reaffirm EPA's reinvention strategy and suggest some convergence of opinion about what needs to be done to ensure continued progress in environmental and public health protection in the future.

controlling and preventing pollution in ways never before possible. The Internet, geographic information systems and other new information management capabilities are helping to transform environmental data into a much more powerful, accessible tool to support decision-making. The public is becoming more knowledgeable about environmental issues and the need to assure environmental justice for all people, particularly our children. American industries are looking for ways to become more sustainable and competitive in the global marketplace by improving resource efficiency and cutting waste. And years of implementing environmental requirements has resulted in an extensive network of state and local officials, industry professionals, and consultants and engineers with considerable knowledge and capability in managing environmental affairs.

As a result, the nineties have proven an opportune time for reinventing environmental and public health protection programs. Providing flexibility along with strong accountability, offering more compliance assistance, improving public access to environmental information, building stronger partnerships with other stakeholders, and cutting red tape and unnecessary paperwork that divert attention from more pressing issues — these are some of the ways in which EPA is acting to take advantage of varied, complex, and often competing forces within society.

Many of EPA's reinvention efforts are reflected in the following sections, which illustrate how the current regulatory system is evolving as the twenty-first century draws near. These sections highlight EPA's resolve and commitment to finding new ways of doing business so that a strong system of environmental and public health protection becomes even stronger.





A STRONGER PARTNERSHIP WITH STATE AGENCIES

Together, EPA and the states share major responsibilities for protecting public health and the environment. In the most general sense, EPA's role has focused on developing the science and national standards that protect our people and natural world from risk. While EPA regional offices play a vital role in implementing these standards, the states have been the primary, front-line delivery agents, working with other governmental agencies, businesses, and communities to ensure that standards are met. These roles still exist, but for a variety of reasons, they are becoming less distinct.

Years of managing environmental programs has provided states with more experience, expertise, and sophistication that was lacking in the mid-1970s when most environmental programs got underway. As more environmental responsibilities are delegated to the states, their officials are demanding a stronger voice in decision-making and priority-setting. At the same time, national efforts aimed at testing new approaches to environmental protection often result in EPA working directly in the states with businesses and communities through pilot projects. As a result, EPA and the states are going through a transitional period of questioning how to best work together so that the skills and resources of each are used for the greatest possible gains.

A FRAMEWORK FOR COLLABORATION

The most prominent outcome during this period has been the establishment of the National Environmental Performance Partnership System (NEPPS). Signed by EPA Administrator Carol

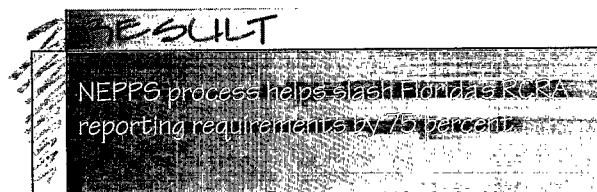
Browner and state leaders in 1995, NEPPS was launched based on a shared recognition that continued environmental progress could be achieved most effectively by working together as partners. NEPPS was designed to promote joint planning and priority-setting, and to provide states with more flexibility in determining how resources should be targeted.

Under NEPPS, states and EPA develop Performance Partnership Agreements that are based on a comprehensive assessment of state environmental problems. They include criteria for measuring environmental and program management results, clearly defined management and implementation roles, and specific areas where EPA can reduce its program management oversight based on a history of strong state performance. NEPPS also includes Performance Partnership Grants, which allow states to consolidate grants as a way of cutting paperwork and simplifying financial management.

Now in its second year of operation, NEPPS is expanding rapidly, with the majority of states choosing

to participate. Just six states piloted Performance Partnerships in 1996. By 1997, 30 states had signed Performance Partnership Agreements with EPA, and 36 state agencies received Performance Partnership Grants. This participation signals a growing acceptance of NEPPS by the states as a substantive, carefully thought-out program that can improve environmental program efficiency and effectiveness. Although participation is expected to continue to increase, all states — whether participating or not — will benefit from streamlined joint-planning and priority-setting processes that have evolved as a result of state/EPA collaboration.

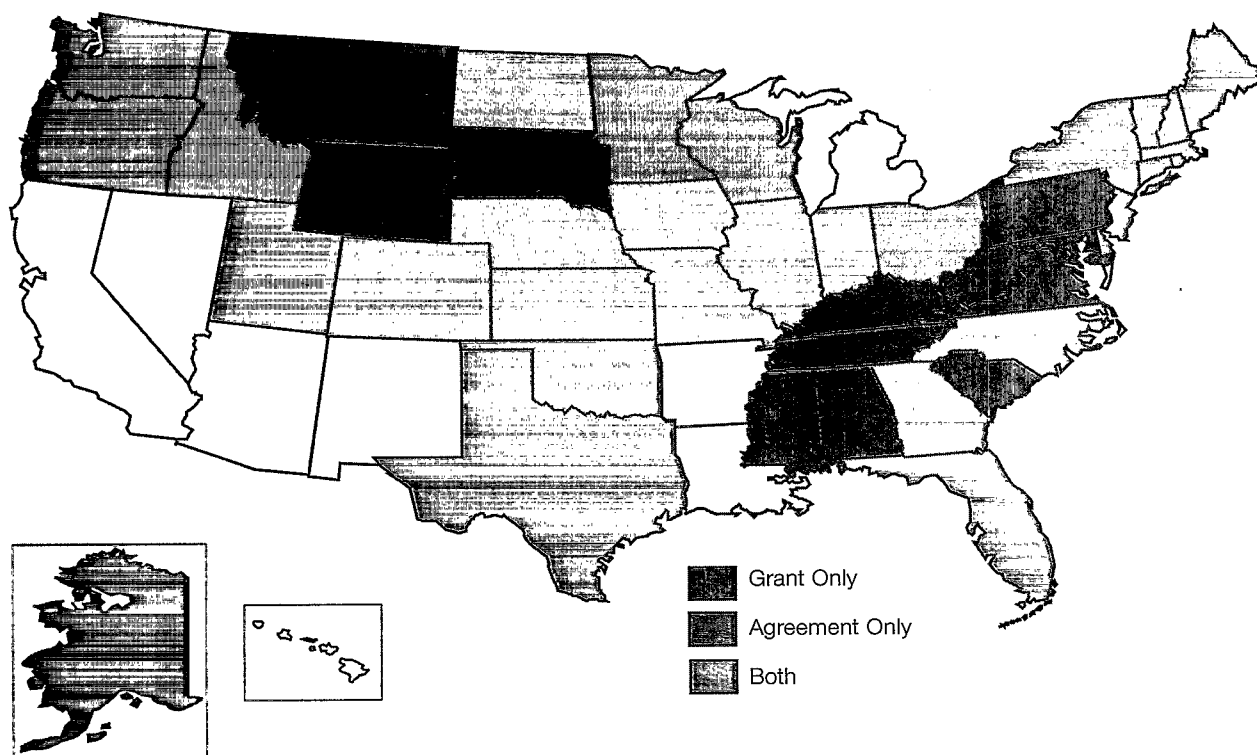
One example of how NEPPS collaboration can enhance program management can be seen in the state of Florida. There, state and EPA managers in the RCRA and water programs reviewed every reportable



document, including inspection reports, permit applications, and notices of violations, which had been agreed to over the years. Based on this detailed evaluation and the maturity of the RCRA program, they were able to eliminate about 75 percent of the routine reporting previously required. Many of the water program reports were reduced as well without compromising program operations. EPA's regional office in Atlanta is working now to extend these same benefits to other state NEPPS participants.

Performance Partnerships

States With Agreements and Grants in 1997



MORE MEANINGFUL REPORTING

A SAMPLE SET OF MEASURES FOR WATER QUALITY

MEASURES TO TRACK ENVIRONMENTAL RESULTS

During the year, a critical element of the NEPPS structure was put in place when EPA and the states agreed on a set of Core Performance Measures to track environmental results. In the past, measures have focused more on program management than environmental progress. The measures adopted for 1998 move beyond this point, so in addition to tracking the number of permits issued to control waste water discharges, a measure now exists to report on the percent of watersheds with toxic pollution at or below permitted levels. Such measures will provide EPA and the states with a basis for determining and demonstrating whether NEPPS is improving environmental program management capabilities. In a broader context, these measures will help link environmental results in the states with EPA responsibilities under the Government Performance and Results Act (GPRA), a recent federal law that requires EPA, along with all other federal agencies, to develop a strategic plan with clear goals and measures of success.

DIALOGUE ON KEY POLICY ISSUES

While NEPPS represents a major milestone for improving the state/EPA partnership, it does not address every issue of importance to state and EPA officials. As a result, EPA and the states continue to engage in dialogue on key issues affecting environmental program management. For example, the states' interest in reinventing environmental protection is creating a demand for more authority for experimenting with innovative regulatory approaches. Over the past year, EPA and the states have worked to develop a joint agreement on how these innovations should be managed in the context of broader regulatory reforms. After months of consultation and negotiations, a draft

Environmental Goal

Clean Waters: All of America's rivers, lakes, and coastal waters will support healthy communities of fish, plants, and other aquatic life and uses such as fishing, swimming, and drinking water supply for people. Wetlands will be protected and rehabilitated to provide wildlife habitat, reduce floods and improve water quality. Ground waters will be cleaner for drinking and other beneficial uses.

Environmental Objective

By 2005, pollutant discharges from key point sources and nonpoint source runoff will be reduced by at least 20 percent from 1992 levels.

Core Program Outcomes

Percent of watersheds with toxic pollutant loadings at or less than permitted limits.

Percent of facilities implementing wet weather control measures. Where available, report the annual pollutant loadings of key parameters associated with wet weather sources.

agreement was reached and published in the Federal Register for public comment in October 1997. A final agreement is expected in spring 1998. Reinventing the collection and use of environmental data is another key issue for state and EPA officials. Recognizing the need to make better use of this important tool, in late 1997, EPA and the states agreed to work on a common vision and action plan to bring about the necessary reforms. This effort got underway in early 1998 with a joint meeting in Salt Lake City, Utah. (For more information on the challenges associated with environmental data, see "Managing in the Information Age" later in this report.)



SECTOR- AND COMMUNITY-BASED APPROACHES

M

aking the current regulatory system more responsive to the evolving needs and capabilities of specific industries and communities is a key issue for reinventing environmental protection, and one that represents a natural progression for environmental policy. Over the past quarter century, EPA has developed a comprehensive set of national environmental standards as required by 16 federal environmental laws. As the essential underpinning of the entire environmental protection system, these standards provide Americans citizens with assurance that no matter where they live or work, a baseline level of protection will exist. They also provide state and local governments and the private sector with a clear understanding about what is expected in terms of environmental responsibility — an important factor for long-range planning, development, and investment purposes. Finally, they help assure a level playing field among economic competitors.

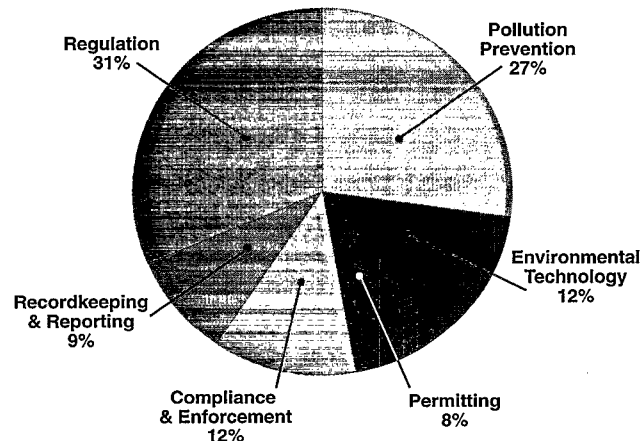
In an effort to build on these strengths, EPA is working on sector and community-based approaches that offer more tailored management options. As the following examples show, they require in-depth analysis, flexibility and a willingness to engage all affected stakeholders in creative problem-solving.

AN INDUSTRY COMMITS TO IMPROVING ENVIRONMENTAL PERFORMANCE

In an effort to go beyond compliance and achieve even cleaner operations, in 1997, the metal finishing industry developed an ambitious strategic goals program for addressing environmental performance. The goals were an outcome of the industry's participation in the Common Sense Initiative (CSI), a special forum established by EPA Administrator Carol Browner in

The Common Sense Initiative

Sector Projects Address a Variety of Environmental Management Issues



RESULT

An ambitious sector-based environmental management program for the metal finishing industry.

1994 to test multimedia, sector-based approaches to environmental management as an alternative to the pollutant-by-pollutant approaches that have long been used. Through CSI, the metal finishers and other selected industries work with their stakeholders to look at a broad array of issues as a means to developing more flexible, cost-effective, and environmentally-protective solutions tailored to industries' and stakeholders' needs.

With support from state and federal officials, environmental and other public interest groups, and their national trade associations, the metal finishing industry developed a comprehensive set of environmental performance goals that go beyond compliance with environmental requirements and aim for cleaner operations. Industrywide, these goals could cut toxic chemical emissions to air and water by up to 75 percent; while metal releases and hazardous sludge disposal could fall by about 40 percent. To meet these goals, the industry is striving to have 80 percent of all firms participating, and supporting tough enforcement action against firms that consistently fail to meet their environmental compliance obligations. Ultimately, this unprecedented program, developed on a voluntary basis, could become a model for other industries interested in improving their environmental performance and stewardship in the future.

ADDRESSING INDUSTRY NEEDS IN RULEMAKING

A move towards more tailored management strategies can be seen also in recent regulatory developments. For example, EPA is required to develop an air toxics rule for the pharmaceutical industry in 1998. The pharmaceutical industry, which pro-

duces a wide range of existing and new/improved products, has expressed concern that its frequent changes may necessitate permit modification. The industry has predicted that such permit revisions would result in delays in implementing process changes and cause significant new administrative burdens on the facility and permitting authority. In order to address the industry's operational needs up-front, EPA established a partnership with affected stakeholders to incorporate and draw upon their different views. With this input, EPA launched a pilot program to develop a flexible operating permit for a pharmaceutical facility and to identify flexible ways to implement proposed air toxics requirements with other applicable air pollution requirements. In addition to influencing the final rule, the pilot project is expected to result in useful guidance for developing flexible permits across the pharmaceutical industry and for involving stakeholders in the regulatory development process.

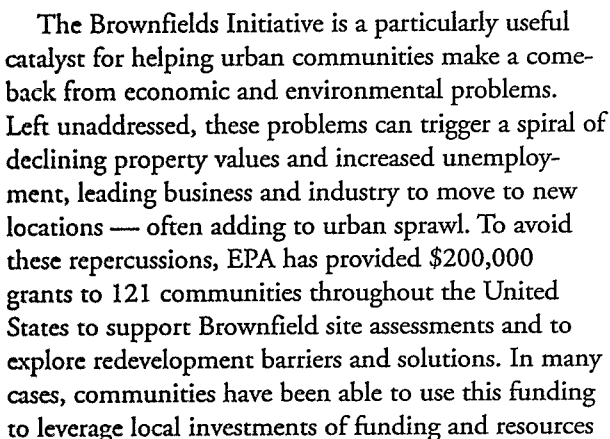
EMPOWERING COMMUNITIES

The need for more tailored approaches is not limited to business and industry — communities face this challenge, too. For this reason, EPA is promoting community-based environmental protection, or CBEP, an approach for working collaboratively with citizens in a specific geographic area. By protecting all parts of the environment together — the air, water, land, and living resources — while considering economic and social objectives, this approach meets the needs of local citizens for cleaner environments, vibrant economies, and livable communities.

Many of EPA's reinvention initiatives support and promote CBEP. For example, Performance Partnership Agreements with states allow resources to be targeted to particular problems rooted in communities; Supplemental Environmental Projects, if negotiated as part of an enforcement action settlement, require polluters to perform cleanup or restoration projects within the affected community; and the Brownfields Initiative offers incentives for cleanup and redevelopment of abandoned or under used industrial and commercial properties where redevelopment is complicated by real or perceived environmental contamination problems.



121 Awarded as of September 1997



12 SECTOR- AND COMMUNITY-BASED APPROACHES

10,600 jobs will be created over the next five years, creating \$6.4 million in tax base improvements for Emeryville.

In 1997, community cleanup and redevelopment needs led the Administration to announce the

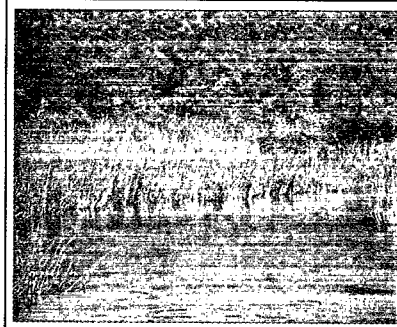
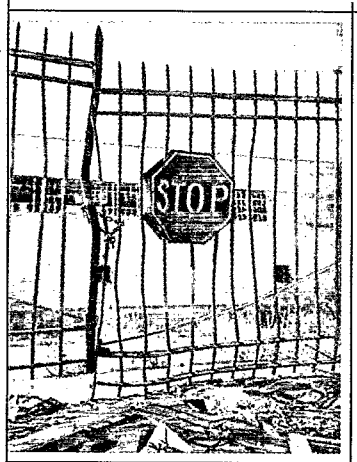
Brownfields National Partnership Action Agenda, which included a new Brownfields cleanup and redevelopment tax incentive and a substantial, \$300 million investment for Brownfields projects. A centerpiece of the agenda is the Brownfields Showcase Community Project, which calls for EPA and more than 20 federal agencies that share Brownfield interests and responsibilities to choose at least 10 communities that will serve as

national models for Brownfields collaboration. Each showcase community will receive a mix of financial, technical, and staff support, depending on the needs of the community. Overall, the Action Agenda will result in cleanup and redevelopment in up to 5,000 more communities in the future.

In addition to working with other federal agencies, EPA works closely with state, local, and other national governments to promote Brownfields action. To date, EPA has signed agreements with 11 states outlining state and federal roles at Brownfields sites and continues to work closely with states and communities to integrate Brownfields projects with local efforts. In Rhode Island, for example, EPA is working with the Department of Environmental Management on two sites as part of a broader effort aimed at promoting growth and stability in the Woonasquatucket River corridor. Internationally, EPA is working with public and private sector organizations to share Brownfields

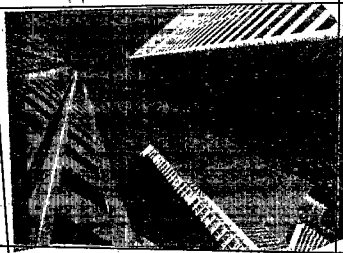
expertise with the United Kingdom, Germany, the Netherlands, and Canada.

Another demonstration of community-based environmental protection can be seen in South Florida where efforts are underway to protect and restore the Everglades and surrounding ecosystem. Following several years' work, in January 1997, implementation began on a consensus plan to accomplish multiple goals, including restoring natural water flows to the ecosystem and creating buffer areas to control polluted runoff from urban and agricultural areas. As part of this effort, EPA is working with other federal partners and community stakeholders in Dade, Broward, and Palm Beach counties to contain urban sprawl and ease development pressures stemming from rapid population growth. The objective is to direct new development away from Southeast Florida's remaining environmentally sensitive water resources and agricultural lands and into previously developed areas. The Florida Department of Community Affairs, which has the lead for the urban component of the Everglades restoration effort, has requested EPA's assistance in a number of key areas, including Brownfields redevelopment, transportation, and public participation.



RESULTS

Providing an additional \$500 million to address community Brownfield cleanup and restoration needs.



SECTION INCENTIVES TO ENCOURAGE BETTER PERFORMANCE

EPA is promoting system changes that can encourage businesses and communities to not just meet baseline environmental standards, but to aim higher and go beyond compliance. Too often in the past, environmental requirements have been regarded as a burden to be endured rather than an opportunity for improving operations. But today, that perspective is changing based on a realization that sound environmental management can boost economic performance by cutting waste, saving energy, and reducing liability concerns.

While this realization is leading many regulated entities to invest in environmental improvements independently, EPA is considering new incentives to accelerate the trend. Incentives can take many different forms, and EPA is experimenting with a wide variety to appeal to different interests. In some cases, the incentive for improving performance might be operational

flexibility that allows companies to move ahead with product changes without regulatory delay. In others, the incentive is public recognition of good environmental stewardship that can be promoted to attract environmentally-conscious consumers. As the following examples show, these incentives can help spark progressive action for improving environmental performance.

"If you have a proposal that promises better environmental results than what would be achieved under the traditional regulatory system, and if you commit to engaging all stakeholders in developing alternative approaches and appropriate safeguards, then EPA will give you the flexibility to put those good ideas to the test."

FLEXIBILITY FOR GOING BEYOND COMPLIANCE

"If you have a proposal that promises better environmental results than what would be achieved under the traditional regulatory system, and if you commit to engaging all stakeholders in developing alternative approaches and appropriate safeguards, then EPA will give you the flexibility to put those good ideas to the test." That challenge issued from EPA's Project XL, which stands for eXcellence and Leadership, was made 2 years ago as an incentive for regulated facilities to go beyond compliance with environmental requirements.

RESULT

Testing, negotiating, or developing alternative environmental management strategies at 27 sites around the country.

Since then, agreements have been reached with six companies and a federal facility. They include: an Intel computer chip manufacturing plant in Arizona; a Weyerhaeuser paper mill in Georgia; a Merck pharmaceutical plant in Virginia; Jack M. Berry, a citrus company in Florida; OSi Specialties, a specialty chemical maker in West Virginia; HADCO, a printed circuit board manufacturer in New York and New Hampshire, and the U.S. Department of Defense Vandenberg Air Force Base in Santa Barbara, California. Another 20 project proposals are being negotiated or developed. Ultimately, EPA expects to test pilot 50 projects.

EPA's experience, to date, shows that the alternative management strategies being tested through Project XL can prove to be winners for the facility, for stakeholders in the community, and for the environment.

As an example, Merck produces an active ingredient for a drug used in treating adults with Human Immunodeficiency Virus. As a result of its negotiated agreement, Merck gained a streamlined environmental permitting process for its Virginia plant so the company can introduce desperately needed new products to market more quickly.

In return for this benefit, Merck agreed to go beyond compliance with air quality standards and reduce its total air emissions by 20 percent. This reduction will improve visibility and reduce acid rain in nearby Shenandoah National Park, a favored tourist attraction for east coast travelers. Among the actions being taken to achieve this reduction is a multi-million dollar investment to convert the facility from coal-burning to natural gas, a much cleaner burning fuel. As part of the final agreement, Merck also agreed to join other stakeholders in conducting a five-year study of air quality trends in the area, including the national park. This commitment, which would have never come about through the traditional permitting process, was realized only because project stakeholders identified the issue as a priority.

A PACKAGE OF INCENTIVES FOR THE PULP AND PAPER INDUSTRY

In what could represent a new trend for regulatory development, EPA relied heavily on incentives in developing new regulations for the pulp and paper industry. The regulations, which happened to be the first integrated, or multimedia, rulemaking in the Agency's history, aim for substantial reductions of toxic pollution to air and water. Consisting of proposed and final requirements, they provide mills with flexible alternatives for complying with air standards. For mills that voluntarily choose to invest in advanced water pollution control technologies that go beyond regulatory requirements, the new regulations also provide more compliance time, less monitoring and reporting, fewer inspections, additional certainty about future permitting requirements, and public recognition. These incentives will help preserve sustainable development while encouraging further industry progress toward achieving long-term environmental goals.

The pulp and paper regulations were developed with extensive stakeholder involvement, and as the XL program intends, are at least in part, reflective of lessons learned through the Weyerhaeuser project. In the process of negotiating the Weyerhaeuser agreement, EPA was made aware that what the industry most needed to improve performance was overall flexibility in controlling pollution to various media. As the regulations were under development, this preference was shared with the Agency and, ultimately, contributed to the content of the regulations.

RESULT

Issued the nation's first ever integrated, or multimedia, environmental rulemaking.

While individual facilities and their surrounding stakeholders may realize environmental and economic benefits from participation, the most significant benefit of Project XL is the learning opportunity it presents. Project XL provides a mechanism for testing innovative ideas that might lead to changes within the existing regulatory system, and innovative proposals will continue to be selected with this goal in mind. As the program moves into its third year of operation, evaluating projects to determine whether they have features that should be transferred into larger scale program changes will be a major focus of management attention.

LESS REPORTING FOR PROVEN PERFORMERS

Less frequent monitoring and reporting is the incentive being used to promote better performance for facilities discharging wastewater under the Clean Water Act's National Pollution Discharge Elimination System (NPDES). While reporting requirements are essential for ensuring compliance with environmental laws, EPA recognizes that, in some cases, the resources required to collect and report data might be better spent elsewhere. Based on a comprehensive statistical analysis of past effluent monitoring data that showed accountability could be maintained with less reporting, EPA issued guidance to the states in 1995 that allows water quality reporting to be scaled back for facilities with proven records of environmental performance. When fully implemented by states, this guidance could reduce NPDES monitoring and reporting burden by about 4.5 million hours, or 25 percent, nationwide. On average, monitoring and reporting at individual facilities would drop by about 25 to 30 percent. However, certain facilities with exemplary compliance and enforcement records would be eligible for reductions of up to 80 percent.

Oklahoma has been particularly successful in implementation. Since assuming delegated authority for managing the NPDES program in November 1996, all wastewater permits up for reissuance have been screened to determine eligibility for monitoring and reporting reductions. Consequently, approximately 70 percent of the dischargers were found to be eligible for some reductions. Oklahoma is in the process of issuing these permits with reduced monitoring and reporting, with no adversarial responses received through the public comment process. In 1998, EPA and the states will consider issuing the guidance as a final product and take steps to increase the pace of implementation.

PUBLIC RECOGNITION

Public recognition is one of the incentives EPA is using to encourage membership in the Agency's voluntary partnership programs. These programs, which often include technical assistance as well, help participants increase efficiency by switching to more environmentally sustainable practices. From EPA's perspective, they represent an attractive opportunity to address a broad range of environmental issues, such as reduced pesticide use, polluted runoff, energy and water conservation, recycling, and greenhouse gas reduction that may not be amenable to traditional regulatory approaches.

PARTNERSHIP PROGRAMS CUT POLLUTION AND COSTS

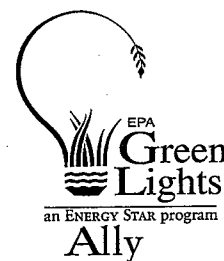
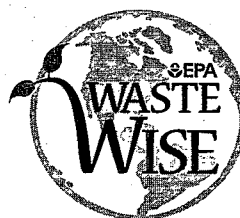
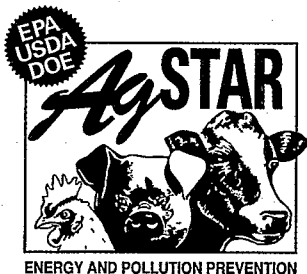
Measure	Current	Projected 2000
Toxics reduced (pounds)	750,000,000	At Least 750,000,000
Waste reduced (million tons)	5.2	8.3
CO ₂ prevented (million metric tons)	24.7	210
Energy saved (trillion BTUs)	199	935
Water saved (million gallons)	1,280-2,375	7,190-10,457
Number of partners	6,882	13,055
Money saved (millions)	\$852	\$4,640

RESULTS

NPDES monitoring and reporting reductions help Oklahoma cut requirements by 25 percent of all wastewater permits.

MARKETING OPPORTUNITIES FOR PARTNERS

Recognizing the potential value to partners, EPA uses different marketing tools to help recognize sound environmental stewardship among voluntary program participants. For example, EPA's Energy Star partners, who agree to produce more energy efficient computer and office equipment, may use the Energy Star logo in labeling their equipment and in their advertising campaigns. The Green Chemistry Program, aimed at encouraging development of less toxic chemical products and processes, includes a national Presidential Awards Program. Other marketing opportunities include: signing ceremonies with participants, public service advertising, and mention in Agency outreach materials, such as press releases and senior official speeches. These opportunities provide tangible recognition for partners and a potential advantage in the marketplace. They also provide other potential partners with reason to consider participation as well.

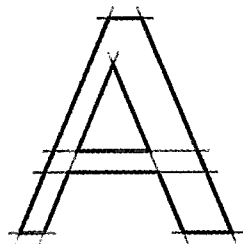


As the table on the opposite page shows, this voluntary approach is quite meaningful: as of January 1997, partners reduced toxic emissions by 750 million pounds; saved 1.3 billion gallons of water; eliminated 5.2 million tons of solid waste from entering landfills and incinerators; and reduced greenhouse gas emissions by preventing 24.7 million metric tons of CO₂ (nearly twice as much as the year before). By cutting waste, preventing pollution, and reducing liability concerns, participants can gain substantial economic benefits. The public recognition that comes along with participation can prove financially rewarding, too. Most programs provide some form of recognition that participants can use as a marketing tool for promoting environmental stewardship in the marketplace. Technical assistance, and in some cases financial support, are additional incentives used to encourage participation.

Today, nearly 7,000 partners — representing nearly every sector of the American economy — have signed up for one or more voluntary programs. Based on the positive results achieved, to date, EPA projects more than 13,000 partners by 2000.



MARKET-BASED FORCES GUIDE ACTION



As the previous section noted, financial considerations can be a strong incentive for encouraging better environmental performance. This reality is true for American corporations, but it is equally true for individuals, for communities, for small businesses, and for nonprofit organizations. Recognizing the "power of the purse," EPA is considering how financial instruments, such as the federal tax code, federal subsidies, and community service fees can be used to advance environmental and public health protection goals.

These approaches, used in appropriate circumstances, offer a number of advantages for society. The increased affordability and flexibility means that standards can be set at higher levels than what might otherwise be possible. They can ensure continued growth and development opportunities in situations that might otherwise warrant development constraints. Perhaps most importantly, economic approaches offer promise for addressing problems, such as polluted runoff, that have not been brought under control through traditional regulatory means.

A MARKED INCREASE IN TRADING

Trading, in particular, has become a standard environmental management tool, with the number of national programs offering this compliance option increasing markedly in recent years. Previously, EPA's air and water programs have relied primarily on performance standards that set a minimum pollution control level — for example, a numerical limit on

emissions or discharges. As a result, the vast majority of rules do not require use of a particular pollution control technology. Instead, they give industry flexibility to decide the best way to achieve the required level of performance, considering cost and other factors.

During the 1980s, EPA began allowing companies to comply with some performance standards through trading options. For example, as the nation moved toward use of unleaded gasoline, refiners were allowed to trade credits under EPA rules requiring a national phased reduction. Ultimately, these rules helped cut lead emissions from motor vehicles by more than 90 percent. In the 1990s, EPA has expanded the use of trading along with other economic incentive approaches. In appropriate circumstances and with proper design, trading can promote better environmental performance and technological innovation while providing industry with flexibility to reduce pollution in the most economical way. EPA strives to couple this flexibility with accountability, through effective monitoring and enforcement, to ensure that

HOW DOES TRADING WORK?

environmental goals are met. Although not a panacea for every situation, as the following examples show, trading is being used to help solve a variety of environmental problems.

Acid rain — Perhaps the best known example of trading is the acid rain program, which is designed to reduce U.S. sulfur dioxide emissions by 10 million tons annually from 1980 levels. In 1997, EPA issued the latest of a series of rules to implement this system. Already, the trading system is helping to achieve cost-effective reductions ahead of schedule — the annual cost of meeting the full reductions is expected now to be between \$2 - 2.5 billion a year, about half the cost estimated originally.

Smog and other common pollutants — In 1997, EPA announced new national rules to cut pollution from diesel locomotives, trucks and buses to help the nation meet the new air quality standards for smog and particulate matter. Rather than requiring every engine family to comply with the standards, the rules allow manufacturers to average emission limits, to

bank excess reductions for later use, and to sell excess reductions to other manufacturers. This option gives manufacturers flexibility to meet overall emission goals at the lowest cost and enables EPA to set emissions standards at levels more stringent than they would be otherwise.

In addition to building in flexibility in national rules, EPA is working with states on flexible ways to achieve compliance with national air quality standards for

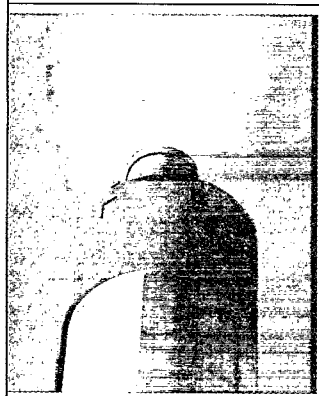
smog, particulate matter and other common pollutants. EPA has developed guidance for the states on ways to use trading and other economic incentives in meeting standards, and has assisted the states in setting up trading programs, such as California's RECLAIM program for reducing sulfur dioxide and nitrogen oxide emissions and the Ozone Transport Commission's program for controlling nitrogen oxide emissions among states in the Northeast.

Trading programs enable a company or facility to earn credits for making extra reductions at one pollution source, and allow these credits to be used to meet requirements that apply to another pollution source. One form of trading is emissions averaging. Rather than having to meet the same limit for each emission point within a facility—or for each product made by a company—the facility or company can comply by averaging across multiple emission points or products. Additional flexibility is allowed by trading programs that allow a company to sell or trade reduction credits to other companies.

Ozone layer depletion — In gradually phasing out production of chemicals that harm the stratospheric ozone layer, EPA is giving producers and importers the flexibility to trade allowances. Under the Montreal Protocol, the United States and other industrialized countries agreed to stop producing and importing one of the most destructive chemicals for ozone — chlorofluorocarbons — (CFCs) and other substances by specific deadlines. With the United States' CFC trading regulations serving as a model for other countries' rules, phase-out of CFCs was completed in 1996.

Toxic Air Pollution — Emissions averaging is one of several tools being used to provide compliance flexibility as EPA produces new rules to cut toxic air pollution. During the past four years, EPA has provided opportunities for averaging in final toxic emission standards from printing and publishing firms, and a variety of manufacturing operations, such as synthetic organic chemicals, polymers and resins, wood furniture, and primary aluminum production. (To avoid shifting risks from one area to another, toxics averaging is allowed only within individual facilities, with appropriate safeguards).

Water Pollution — Under the national water program, trading allows pollution sources to reduce pollution beyond what is needed to meet water quality standards, and then sell or exchange the reductions to other sources within the same watershed. Trades can occur between point sources, nonpoint sources, or point and nonpoint sources as long as they result in pollution reductions equal to or greater than what



would be achieved otherwise. The flexibility in this arrangement capitalizes on economies of scale and varying treatment efficiencies, thereby reducing overall compliance costs within a watershed. It creates an economic incentive for going beyond compliance and preventing pollution, and it presents an opportunity for expanding nonpoint source management and habitat restoration efforts.

EPA provided guidance concerning trading options in a *Policy Statement on Effluent Trading in Watersheds* in 1995, and in a draft *Framework for Watershed-Based Trading* in 1996. With this guidance in place, in 1997, EPA moved to encourage implementation through pilot projects. In one project, EPA joined forces with the state of Michigan and other stakeholders to develop a trading program in the Kalamazoo River watershed. The purpose of this project, which involves point and nonpoint sources, is to improve river water quality and, more broadly, to gain experience and information for use in designing a potential statewide water quality trading program.

Wetlands — Wetland mitigation banks are an innovative, market-based way for landowners to compensate for wetland losses authorized under federal wetlands programs. Mitigation banks are established when a public or private entity restores, creates, or preserves wetlands for the purpose of providing mitigation to offset unavoidable losses that occur during development. These banks help landowners save time and money by having the option to simply purchase

"credits" from an approved mitigation bank rather than having to provide mitigation themselves. Moreover, this alternative transfers responsibility to an entity with the financial resources, scientific expertise, and incentive necessary to ensure that the mitigation will be ecologically

successful. Approximately 20 states have established or are developing programs or formal policies to encourage mitigation banking.



A TAX FIX

Another potentially significant mechanism for harnessing market-based forces for environmental gain lies within the federal tax code. As an example, in 1997, a relatively minor tax reform was adopted to encourage commuting by means other than driving alone. The reform evolved from an obstacle the state of California faced after passage of the Energy Policy Act of 1992. This federal law stipulated that employers who provided taxable cash as a commuting subsidy — an offer some California employers were required to make under a new state air quality improvement law — would lose the tax exemption they previously received for providing employees with free parking. Furthermore, employees who continued to accept the parking would be required to treat the parking as income, creating additional tax liability for both employers and employees.

As a practical matter, these tax liabilities were disincentives for the more environmentally-sound commuting subsidies. As Congressman Brian Bilbray (R-CA) said of the tax problem, "It had a way of killing our clean air strategy in California." California explained the problem to EPA, which was

looking at ways to use commuter benefit incentives to reduce greenhouse gas emissions from the transportation sector. EPA developed a federal proposal, called Parking Cash Out, that was modeled on the California law and removed the federal tax disincentive to offering employees choice among commuting benefits. Following unsuccessful attempts to have the proposal adopted through other legislative avenues, EPA worked with the Department of Transportation to craft a new proposal for the 1997 transportation reauthorization bill. A similar provision sponsored by Senator Chafee (R-RI) was enacted as part of the Tax Relief Act of 1997. Beginning with taxable year 1998, this measure eliminates the federal tax penalty for offering taxable cash in lieu of tax-exempt parking.



RESULTS

Removed federal disincentives that discouraged more environmentally sound community options.

Ultimately, this tax reform could prove a powerful tool for improving air quality. In California, eight employers who offered cash as an alternative to a free parking space at work — despite the disincentive that existed — found that solo driving to work fell by 17 percent, on average. The resulting emission reduction is the equivalent of taking one in eight cars headed to these sites off the road during rush hour, the time of day when smog formation begins.

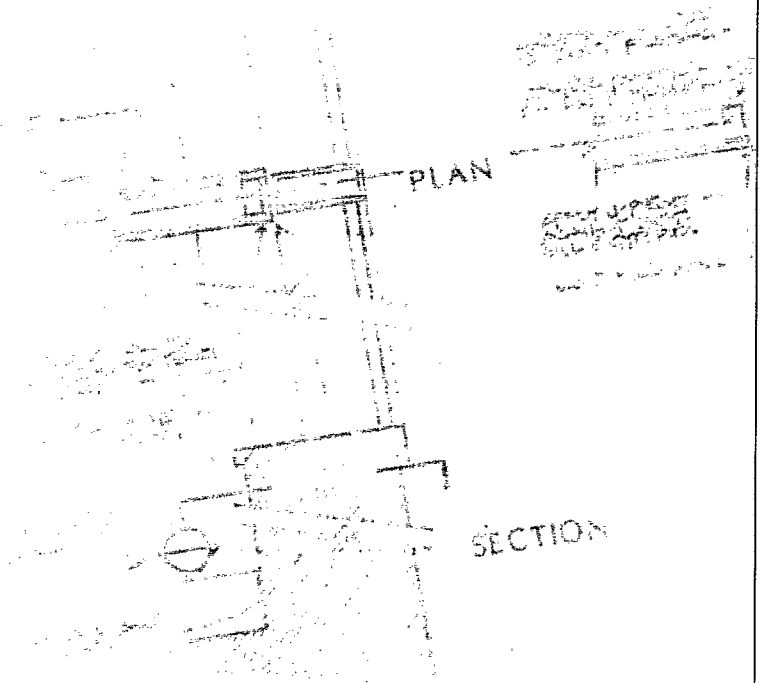
FAIR PRICING

In recent years, more and more communities have begun to use fee structures to encourage environmentally-preferable behavior. For example, as an alternative to a set charge, “pay-as-you-throw” programs have been established to charge customers based on the amount of trash they throw away. Similar to gas, electricity, and water utilities, the more you use, the more you pay.

EPA is supporting “pay-as-you-throw” for a number of reasons. First, it reduces waste generation and encourages recycling, which means less use of our natural resources. Communities with programs in place have reported reductions ranging from 25 to 35 percent, on average. Second, this variable-rate approach is more equitable. When the cost of managing trash is hidden in taxes or charged at a flat rate, conscientious residents who recycle and minimize waste generation subsidize their neighbors’ wastefulness. Finally, it is an effective means for helping communities cope with soaring municipal solid waste management expenses. Well-designed programs generate revenues which communities need to cover their solid waste costs, including the costs of complementary programs, such as recycling and composting.

For these reasons, over the past several years, EPA has developed technical guidance and other tools to promote use of “pay-as-you-throw” programs. In

1997, the Agency established a new web site that provides extensive information on community awareness, pricing, and other issues related to implementation. In addition, the Agency is providing financial support — in the last two years, \$400,000 has been offered to help communities meet their outreach and technical assistance needs.





MANAGING IN THE INFORMATION AGE

Transforming environmental data into meaningful, accessible information for environmental decision-makers and concerned citizens is one of the most important, yet challenging, reinvention issues EPA faces. Under various statutory authorities, EPA and state agencies routinely collect a wealth of data to help ensure compliance with environmental laws. Data are collected on air emissions under the Clean Air Act, on wastewater discharges under the Clean Water Act, on drinking water quality under the Safe Drinking Water Act, and on contamination levels under Superfund, just to name a few.

In recent years, EPA has made strides to improve public access to environmental information. EPA has made its world wide web site more user friendly, allowing users to search for environmental information by zip code right from its home page. As the figure on the opposite page shows, today, over 27 million users access EPA's web site every month. EPA also has made several key improvements to its information databases. The Envirofacts database, which allows users to access data on more than 700,000 sites where potentially dangerous chemicals are used, was one of *CIO* (Chief Information Officer) magazine's 1998 winners of the Enterprise Value Award — given for using web technology to improve customer service to the public. Another electronic tool, Surf Your Watershed, allows users to identify facilities and the pollutants they emit in a given watershed.

Despite these and other advancements, the vast reserve of environmental data is not being used to its full strategic advantage. First, most data are still being transmitted manually, via paper-based reports. This mode of transmission creates considerable delay between time of data collection and reporting. And because of the manual duplication that often occurs at

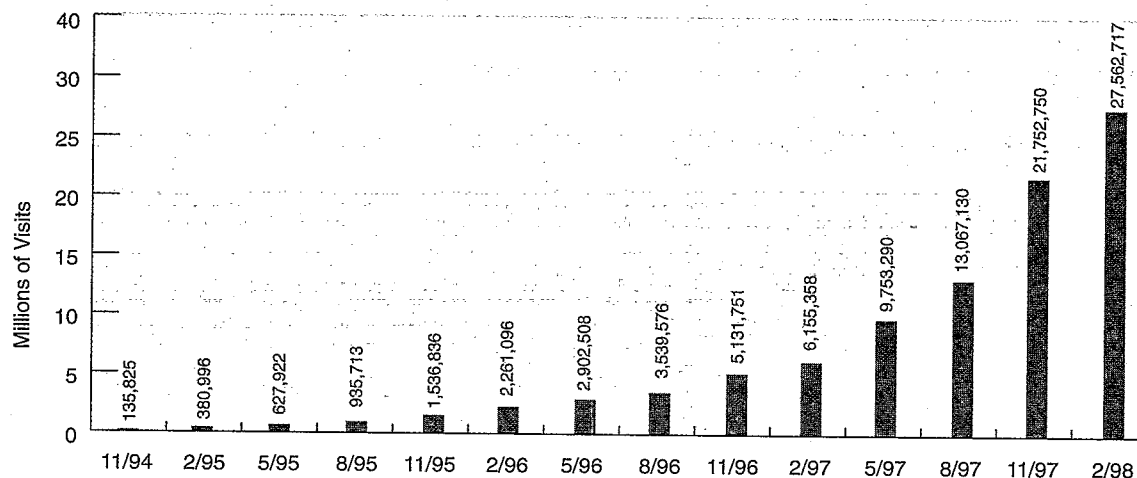
each stage of transmission, (i.e., from a regulated facility to government agency or between government agencies) this mode can be more time-consuming and prone to error.

Second, and consistent with the evolution of the nation's environmental laws and programs, data are stored in separate, media-specific systems, each with its own requirements and formats. Efficiently designed for their original uses — tracking compliance with environmental requirements — this arrangement creates a number of difficulties and inefficiencies. At a practical level, it means that a facility might be required to report basic information, such as name and address, repetitiously into multiple systems. And yet, because of a lack of common standards among the various systems, state agencies and EPA may not be able to extract, aggregate and analyze data on that facility — a major limitation for conducting the cross-media assessments needed to fully understand and manage environmental risks.

Thus, while the current systems have served individual environmental program needs as originally defined, today, they are often ill-equipped to meet the

The Growing Demand for Environmental Information

Traffic On EPA's Web Site



evolving informational demands of industry, the public, and regulatory officials. Meeting these demands will require fundamental changes in EPA's information infrastructure — the policies, procedures, data definitions, and technology used to store, process, and communicate data. They also provide an exciting opportunity to apply a whole new wave of information technology, such as the Internet, geographic information systems, and high-speed networks, to name a few. These changes present organizational challenges for the Agency in creating new business rules and in forging new working relationships with its partners in data management — the states.

To meet these challenges, in July, 1997, EPA Administrator Browner and Deputy Administrator Hansen launched a special initiative to accelerate information reform. Known as Reinventing Environmental Information (REI), this initiative commits the Agency to implementing several reforms that

are crucial to moving environmental data management into the information age. They include:

1. Establishing key data standards to improve the value of environmental information and to enable data sharing and integration;
2. Providing universal voluntary access to electronic reporting as an alternative to paper-based reporting in order to reduce burden and improve data quality and timeliness; and
3. Implementing these data standards and electronic reporting reforms in the Agency's national systems and in partnership with the states.

DATA STANDARDS

Data standards are the key to sharing, linking, and ultimately, integrating environmental data to gain a fuller understanding of environmental conditions and risks. They provide consistent formats and definitions so that data in one system are consistent with the same data in another. As a first step towards standardization, in 1997, EPA and the states developed a facility identifier so that data from a single source, such as a manufacturing plant, can be identified and tracked among the various environmental data base systems. To illustrate, in the past, data from a single site might have been identified as coming from "Company" X in one system and "Facility" X in another. This seemingly slight variation has presented a major obstacle for environmental database and program managers.

READY FOR THE YEAR 2000

Like all organizations with data management responsibilities, EPA is faced with modifying systems to handle year 2000 data. But based on preemptive steps already taken, the turn of the century should not be an obstacle for national environmental data base users. The necessary system modifications are either completed or underway.

Additional standards for consistently identifying chemicals and living organisms (*i.e.*, biological taxonomy) among systems are now being developed.

UNIVERSAL ACCESS TO ELECTRONIC REPORTING

Providing universal access to electronic reporting is another important data reform goal. As an alternative to the traditional, but more laborious paper-based reporting, EPA has committed to providing an electronic reporting option for all environmental requirements within five years. In addition to cutting paperwork, this mode of operation should enhance access to data, speed delivery, and improve accuracy by eliminating errors that occur through manual data entry.

Some EPA national systems already allow regulated facilities to report data electronically to EPA, or to delegated state agencies.

However, without the benefit of standard data formats, transfer protocols, security and management procedures, there is little consistency in how the various EPA programs and delegated state agencies now handle this function. To ensure that both government

programs and regulated facilities can enjoy the efficiencies of streamlined and integrated data transfer, EPA is developing a coordinated, standards-based approach to electronic reporting based on the needs of all parties involved in data exchange. The approach will offer states and regulated companies a range of optional electronic reporting methods, but will also allow participants to conduct electronic transfer in a uniform, integrated manner.

REENGINEERING ENVIRONMENTAL DATABASE SYSTEMS

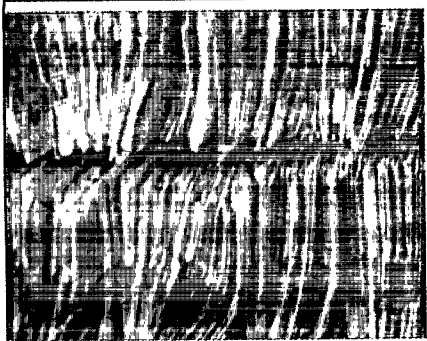
The data standards and electronic reporting capabilities described above will be implemented by reengi-

neering national environmental systems and by working with the states on modifying their systems. At EPA, 13 national systems have been targeted as priorities for reengineering, with an initial emphasis on compliance systems.

Implementation will be an issue for state system managers as well. In many cases, states are the collector and primary steward of the data contained in EPA systems. In addition, states collect data to satisfy their own unique legislative mandates and business needs. Nationwide coordination of environmental data systems will require close cooperation among EPA and its state partners. A framework for joint collaboration has been laid through EPA's One Stop Reporting program, launched in 1995 to reduce the reporting burden on industry, to foster multimedia and geographic approaches to problem-solving, and to provide the public with meaningful, real-time access to environmental data. In the past two years, EPA has provided 13 states with \$500,000 grants to support data reform projects, and REI commits EPA to expanding the program to all 50 states by fiscal year (FY) 2003. Results from these individual state efforts will continue to inform and drive specific information reforms, and help to move EPA and the states towards a common vision for managing environmental data in the wake of new technologies and the growing public demand for information.

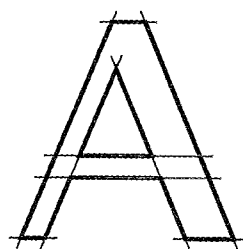
RELATED INITIATIVES

While REI aims to address the most basic shortcomings of environmental data management, it does not represent the complete information reform agenda. To meet challenges that REI does not address, EPA has launched other information initiatives, such as the Center for Environmental Information and Statistics (CEIS). Expected to open in 1998, this center will focus on presenting integrated analysis of environmental data and reporting on environmental quality, status, and trends. Similarly, the Environmental Monitoring for Public Access and Community Tracking (EMPACT) initiative is conducting a nationwide data needs assessment as a first step towards providing real-time data on environmental conditions in 85 metropolitan areas. Other smaller-scale information reform projects continue throughout the Agency.





SUPPORTING THE PUBLIC'S "RIGHT-TO-KNOW"

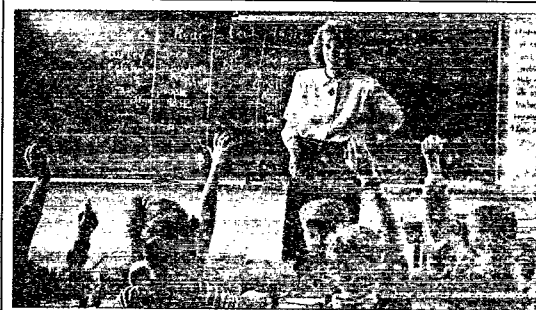


telling sign of change in the current environmental protection system is the increasing focus on the public's right-to-know. For many years, attention to stakeholder needs often have been overshadowed by a regulatory agenda focused almost exclusively on point source control. But, in most situations, point sources have been brought under control and attention has turned to a different set of environmental problems that are more diffuse and less amenable to regulatory solution. Today, finding and implementing effective solutions to problems, such as polluted runoff and urban sprawl, requires a different approach — one that more fully involves environmental and public interests groups, businesses and industry, the academic community, other government agencies, and private citizens.

Today, these stakeholders are more interested and prepared to engage in problem-solving than ever before. Environmental education in the school system has helped to raise awareness of and understanding of environmental issues. The Internet is making it easier for interested parties to go online and access environmental information and data, and other new informational tools, such as geographic information systems, can help to transform that data into much more meaningful formats for technical and nontechnical users. As a society, we are more aware of the need to ensure environmental justice for all our citizens, particularly our children. The result is a new generation of stakeholders that are willing and able to play a much more active role in environmental issues.

Efforts to encourage and empower these stakeholders can be seen throughout the Agency. Today, stakeholders are being invited to join regulators in the early stages of

regulation development — a move that can help improve buy-in and ward off litigation later on. Other efforts are aimed at providing stakeholders with more information so that environmental issues and risks become more transparent and understandable for all.



MORE INVOLVEMENT IN REGULATORY DECISIONS

For many years, EPA has used a stakeholder process sanctioned under the Federal Advisory Committee Act (FACA) to gain external views prior to developing a new regulation. This process recently proved useful for helping to address an unusually broad and nationally significant set of implementation issues raised by the simultaneous establishment of new air quality standards for ozone and particulate matter, and a regional haze program to reduce visibility impairment. Recognizing the effect these new standards could have on communities and businesses, EPA established a FACA subcommittee with more than 80 representatives from federal, state and local government agencies, tribes, business and industry, environmental groups, and scientific and academic institutions to obtain public input.

These representatives identified the critical implementation issues, developed policy alternatives, and identified options and made recommendations to the Agency. Based upon the interactions with FACA representatives, EPA is developing implementation approaches that will reflect this input, providing flexible, market-based systems, positive incentives to achieve emissions reductions, continuation of existing control programs that have worked well, and an appropriate mixture of national, regional, and local measures. These approaches are being set forth in new guidance and rules.

CONSUMER LABELING INITIATIVE

One method of empowering stakeholders is in the commercial market place, and in 1996, EPA acted on this opportunity through a special initiative to improve consumer labeling information. EPA is working with a variety of stakeholders to help consumers make more well-informed choices about pesticides, cleaning supplies, and other common household products, based on their own needs and values, and to promote safe product use. Government agencies, consumer product manufacturers, trade associations, public interest groups, health and safety professionals, and market research experts are conducting research and gathering information in order to better understand consumer behavior and needs.

Based on learning from the first phase of this project, EPA has made several changes aimed at making product labels more user-friendly. Now, labels should include phone numbers so that emergency and product information is easier to obtain. Rather than chemical names, common names are recommended so that consumers can recognize what they are buying. And because many consumers did not understand the term "Inert Ingredients", the term "Other Ingredients" was adopted.

RESULT

New features designed to make labels on pesticides and common household products

These actions represent a greater sensitivity to stakeholder needs. Rather than acting independently, EPA took the time to listen to customers about what they wanted and consulted with industry on the best approach for making these important changes happen. This approach, which has been commended by several stakeholders, has provided a high level of creativity and greater flexibility in dealing with various consumer labeling issues. It also has meant that the changes being made are more reflective of customer needs and more acceptable to the manufacturers expected to comply.

The next phase of the project will examine how to standardize environmental information on product labels, whether and how to further disclose the other (or inert) ingredient contents of registered pesticide products, and how to improve the storage and disposal instructions. In addition, a consumer education program, focused on "Read the Label," is planned.

EXPANSION OF THE TOXIC RELEASE INVENTORY

As part of an overall Administration commitment to strengthening community right-to-know opportunities, in May 1997, EPA expanded the national Toxic Release Inventory (TRI) to include seven additional industry sectors: metal mining, coal mining, electric utilities, commercial hazardous waste treatment, chemicals and allied products — wholesale, petroleum bulk terminals and plants, and solvent recovery services. Initially established in the late-1980s as a result of the 1986 Emergency Planning and Community Right-to-Know Act, TRI focused previously on manufacturing industries. The 1997 expansion will result in new information about toxic releases from sources that were not previously required to make such information publicly available. EPA expects the total number of facilities reporting under TRI will increase by about 6,400, or about 25 percent.

In addition to adding new facilities, EPA also clarified the range of activities that must be considered in determining a facility's total emissions. Together, the new requirements are expected to provide a more complete picture of how toxic chemicals are being managed within communities.

RESULT

Additional 6,400 facilities now reporting on toxic chemical releases in their communities

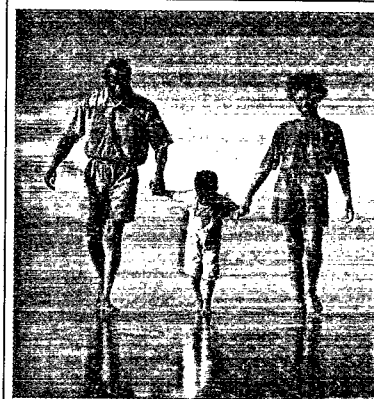
A RESPONSE TO BEACH SAFETY CONCERNS

Every year, millions of Americans head to coastal areas for weekend getaways and vacations. But fish kills and water-borne illnesses from bacteria, viruses, and other pathogens have led the public to raise pertinent questions about the safety of swimming, water-skiing and other water-related activities. Traditionally, concerned citizens have not had an easy, reliable means for making safety determinations. Monitoring

and reporting requirements have varied from state to state and community to community. Even where public advisory programs have been strong, analytical limitations have made it difficult to detect problems in a timely, accurate manner.

To overcome these obstacles, in May 1997, EPA launched the Beaches Environmental Assessment, Closure, and Health (BEACH) program to help states protect the quality of coastal and inland recreational waters and to provide the public with reliable information. As a first step, EPA set up a new Beach Watch web site that provides quick, easy access to the latest information available. In addition, EPA is surveying state and local health and environmental directors on the quality of inland and coastal recreational waters. The results will be posted on the web site in 1998, and updated annually. By summer 1998, the web site will serve as a central clearinghouse for health-related information on recreational water quality in coastal communities and the Great Lakes.

Through technical assistance, EPA's BEACH program also will help states strengthen their water-quality monitoring and public advisory programs. A new testing technology will allow states to assess health-related water quality problems more quickly, so as to improve the timeliness of their monitoring information.



BETTER DRINKING WATER INFORMATION FOR CONSUMERS

Americans generally enjoy one of the safest drinking water supplies in the world. Because an informed

and involved public is necessary to keep this level of safety, in February 1998, EPA acted to provide consumers with better information about the quality of drinking water in their community. This information empowers consumers to make important health decisions for themselves and their families. Under a new proposed rule, water suppliers would — for the first time — be required to report to their customers at least once a year. These consumer confidence reports would provide practical information on a number of factors, including the quality of the local drinking water; whether or not the tap water meets EPA's public health standards; likely sources of any contaminants; and, the health risks associated with any contaminants found. Also included would be information on sources of local drinking water, such as rivers, lakes or wells; on violations and regulatory enforcement actions, and — to educate vulnerable populations — information on how to avoid cryptosporidium, a microbe that is potentially dangerous to people with severely depressed immune systems.

The rule applies to all of the nation's 56,000 community water systems, providing information to more than 240 million people across the country. Large water suppliers will have to mail their reports, either with their bills or as a separate mailing. Smaller systems (those serving less than 10,000 people) may be able to post their report in a central location or print it in a local newspaper. Following a public comment period, EPA expects to issue the final rule later this summer. The first reports will be issued next year.

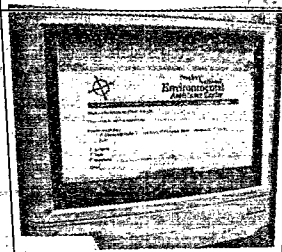
Consumer confidence reporting is the centerpiece of the public information provisions of the newly amended Safe Drinking Water Act. Signed by the President in August 1996, these provisions strengthened and expanded the nation's drinking water protections to give consumers more information on their drinking water and to provide unprecedented opportunities to get involved in protecting their drinking water. EPA developed this rule in consultation with water suppliers,

local governments, environmental groups, risk communication experts and others during numerous public meetings in 1996 and 1997.

RESULT

For the first time, water suppliers serving 240 million Americans will be required to report to customers on the quality of local drinking water.





NEW APPROACHES TO ENFORCEMENT AND COMPLIANCE

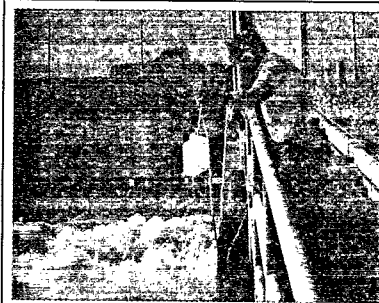
The past year was record-setting for environmental enforcement actions: EPA referred the largest number of civil and criminal enforcement cases in its history to the Department of Justice and assessed the largest total amount of civil and criminal penalties in any one year period. Despite some notions to the contrary, these actions are consistent with, and in fact, complementary to the Agency's reinvention agenda. In addition to providing a level economic playing field among competitors, strong, consistent enforcement against polluters is what allows EPA to support and encourage innovative approaches to solving complex environmental problems. Strong enforcement provides deterrence against future violations, and assures the American people that a baseline level of environmental and public health protection remains in place.

To protect that baseline, EPA relies upon a mix of environmental enforcement and compliance methods. Today, EPA is looking for new ways to help facilities achieve compliance, and even exceed compliance as part of a company's broader strategy for improving efficiency and profitability. In addition, EPA has adjusted its program to meet the compliance assistance needs of small businesses and communities. Making better use of environmental data and local law enforcement personnel, encouraging facilities to police themselves through comprehensive self-auditing programs, and promoting innovative enforcement settlements to compensate communities affected by environmental crimes are just a few of the ways in which EPA is working to make enforcement and compliance even more effective.

MORE CHOICE IN MEASURING COMPLIANCE

In a departure from traditional efforts, EPA is giving the regulated community flexibility to choose the mea-

surement technology they use when demonstrating compliance with effluent permit limits, stack emission limits, and other regulatory requirements. Previously, regulated facilities generally have been limited to use of an EPA approved method. However, a new Performance Based Measurement System, announced in 1997, provides much more choice so that environmental managers can decide for themselves what works best for their given operation. This approach may help reduce costs for the regulated community; stimulate development and commercialization of innovative, cost-effective technologies; and improve the quality of data. In addition, it will shift more attention to the question of whether compliance is being achieved rather than on how a measurement is taken.



This new openness to measuring compliance was demonstrated through EPA's response to a request from an Amoco refinery in Utah. Under the New Source Standards in the Clean Air Act, refineries are required to measure total sulfur dioxide emissions — a procedure that involves climbing smokestacks over 2 to 4 hour increments, often under challenging weather conditions. Amoco approached EPA to discuss the possibility of developing an alternative approach whereby emissions would be calculated theoretically using data collected mechanically through ambient monitoring devices. Through months of data analysis and interpretation, EPA and Amoco developed a multiplier that allows total emissions to be calculated based on ambient data. This alternative makes compliance monitoring far less burdensome without compromising compliance assurance capabilities.

MEETING SPECIAL COMPLIANCE ASSISTANCE NEEDS

Environmental managers in small businesses and communities were offered a helping hand in understanding environmental requirements in 1997 when EPA expanded and opened new Compliance Assistance Centers. In the past, the Agency's focus on larger point sources has meant lesser attention for smaller entities.

As a result, smaller entities have not been inspected as frequently, and consequently, have not become as familiar with environmental requirements.

The Compliance Assistance Centers are an innovative approach to providing smaller operations with up-to-date information so they know exactly what is required and what their options are for achieving compliance and preventing pollution. Because of the easy accessibility, they allow the Agency to assist many more operations than would otherwise be reached through traditional methods. The four new centers will serve the printed wiring board manufacturing, chemical industry, transportation, and local government sectors.

The decision to open new centers was based on successful launches for the metal finishing, printing, auto-

MEASURING RESULTS

To better assess the results of national enforcement and compliance assurance efforts, in 1997, EPA initiated the National Performance Measures Strategy (NPMS) to create more meaningful measures of program effectiveness. Traditionally, results have been measured in terms of program activities (e.g., the number of cases settled). These numbers remain important for assessing program performance and providing accountability to the public, but they do not reveal the state of compliance among regulated entities, the environmental results and impact from enforcement and compliance assurance activities, nor the extent to which important environmental objectives and problems are being addressed by the Agency.

With the new strategy, EPA developed and has begun to use an enhanced set of measures that, in addition to measuring program activities, also measures the effect and outcomes of activities on regulated entities, the environment, and human health. These measures include: impact on environmental and human health problems; levels of compliance in regulated populations; and environmental or human health improvements by regulated entities. In addition to improving EPA's ability to report to the public, these measures are a powerful tool for managing programs more strategically and for complying with the 1997 Government Performance and Results Act, which requires EPA to show progress towards specific goals.

mobile service, and agriculture sectors in 1995 and 1996. These centers, which were expanded in 1997 to provide even more information for users, are meeting a distinctive need. For example, a followup survey with businesses that viewed a Printing Center Video Conference showed that 92 percent of the participants who answered the survey had improved environmental compliance in their shops. A preliminary evaluation of the Metal Finishing Center showed that 15 percent of businesses in the industry were regular users.

RESULT

Launched new compliance assistance centers to provide small businesses in four more sectors with quick easy access to information on environmental requirements.



ENGAGING LOCAL LAW ENFORCEMENT

In an effort to deliver better enforcement action at the local level, EPA is changing the way it deploys its resources for investigating environmental crimes. Under the

national enforcement program, EPA uses special agents for investigations. Historically, these individuals have been assigned to the larger metropolitan areas around EPA's ten regional offices. However, in 1997, special agents were deployed in 40 different cities across the nation in communities ranging from Anchorage, Alaska to Miami, Florida. Today, EPA is working with local law enforcement agencies in training exercises, task forces, joint investigations and regional initiatives to detect serious violations of environmental laws and to provide community based environmental protection.

EPA's collaboration with the International Association of Chiefs of Police in producing an environmental crimes training video and curriculum for police academies led police forces around the country

RESULT

More extensive deployment of special agents to help communities investigate and respond to environmental crimes.

to incorporate environmental training into their basic training programs. In another effort to expand community-based enforcement, support was offered for city neighborhood watch and public outreach efforts, such as Houston's Rat on a Rat program, which targets illegal dumping. In December 1997, EPA held the first national conference devoted to community-based

enforcement. Collectively, these efforts are aimed at establishing a larger, more well-informed network of individuals and organizations dedicated to finding and addressing environmental crimes.

USING INFORMATION TO BOOST COMPLIANCE

In 1997, EPA continued developing the Sector Facility Indexing Project (SFIP) to provide community members greater accessibility to facility-level environmental information. The SFIP is an innovative pilot project that basically synthesizes environmental records from existing data systems into a single system that allows interested parties to analyze and compare environmental performance at the facility or sector level. Indices are being created for five sectors: automobile assembly, iron and steel, petroleum refining, primary nonferrous metals, and paper mills. Based on individual facility permits and data records, the indices will provide facility-specific information on compliance history and pollutant releases as well as facility size, local demographics, and toxicity of released chemicals.

The sector facility indexing project is part of an overall goal of expanding access to environmental information to the states, to regulated facilities, and to the public, in particular. Access to information about environmental releases and the compliance history of individual facilities should help improve the quality of the data used to make decisions, boost compliance with the law, and provide both local communities and corporate managers with information for preventing pollution and improving facility operations.

ENCOURAGING SELF-POLICING

In FY 1997, EPA's effort to encouraging self-policing under the national Audit Policy (*Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations*, 1996) proved inviting. This policy allows EPA to reduce as much as 100 percent of the gravity portion of a penalty (*i.e.*, the portion beyond the economic benefit gained from noncompliance) and recommend no criminal referral to the

Department of Justice when a facility voluntarily discovers its violations, promptly discloses them to EPA, and corrects the violations in an expeditious manner.

To date, 247 companies have disclosed environmental violations at 760 facilities, providing information that would not have been available otherwise. Self-disclosures have come from small businesses and from many industry sectors, including communications, pharmaceuticals, transportation, steel, and energy. Many of these disclosures resulted in waivers. The largest settlement ever reached under the policy was with GTE Corporation in 1997. The agreement, which resolved 600 spill prevention and right-to-know violations at 314 GTE facilities in 21 states, demonstrated the policy's broad scope in promoting compliance at facilities nationwide and provides a good model for national companies that want to come forward and resolve multiple federal violations.

A COMPREHENSIVE, CORPORATEWIDE FOCUS

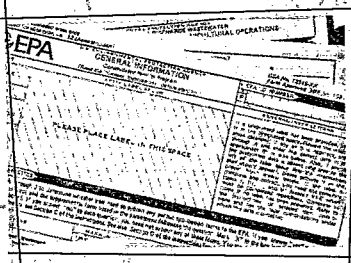
Throughout its history, EPA has enforced the nation's environmental laws by focusing on violations of individual statutes at individual facilities. However, in an effort to use enforcement resources more efficiently and to maximize the environmental results from taking enforcement actions, EPA recently developed a new multimedia enforcement approach that addresses companies on a comprehensive, corporate-wide basis. It aims to ensure that companies take responsibility for all of their federal environmental responsibilities at each and every facility.

A multimedia screening methodology was developed that allows EPA to assess violations at multiple facilities and identify candidates warranting further investigation. The initial cases involving use of this new screening process are still in the investigative or settlement negotiation stages, but word of the program has already inspired several large corporations to improve their environmental compliance efforts, and others to evaluate and disclose their problems under EPA's voluntary audit and disclosure policy.

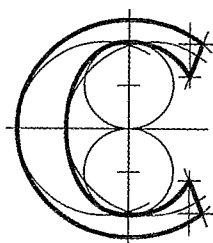
One recent example of the success that can be achieved through such a targeted multimedia effort is the settlement with ASARCO, Inc. Under a settlement announced on January 23, 1998, the national mining and smelting company agreed to invest more than \$50 million to correct hazardous waste and water violations at two of its facilities in Montana and Arizona, to cleanup water and soil contamination at these facilities, and to reduce hazardous waste emissions from its smelters nationwide. In addition, a penalty of \$6.4 million will be paid by the company for its past violations. One unique aspect of this settlement is that ASARCO has agreed to establish a court-enforced environmental management system that is applicable to all of its facilities nationwide. The detailed system that was developed in the context of the ASARCO settlement will change the day-to-day operations of the company's 38 active facilities in seven states and require environmental training for the company's more than 6,000 employees in order to promote compliance with all environmental requirements, and achieve pollution prevention and pollution reduction at these facilities.

This new corporatewide enforcement strategy eliminates the need for the federal and state governments to bring multiple cases to achieve the same final outcome. In addition, a comprehensive enforcement action can require comprehensive, companywide changes with potential for long-term environmental benefits, such as the environmental management system required for ASARCO.





CUTTING RED TAPE AND REGULATORY BURDEN

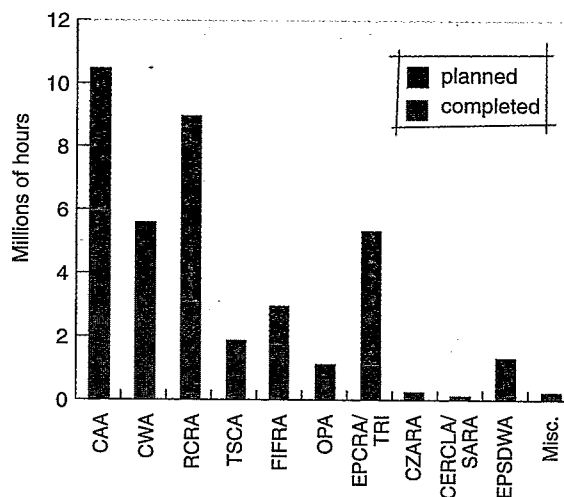


omplementing efforts to test new approaches for achieving better environmental results is an equally important commitment to fine-tuning proven components of the environmental protection system as it exists today. Predictably, the evolution of environmental programs over three decades has resulted in requirements that are no longer applicable or necessary. Moreover, as acknowledged previously in this report, the single-media structure of environmental laws and programs has resulted in requirements that are duplicative across programs.

To rid the system of unnecessary requirements stemming from 16 federal environmental statutes, in 1995 EPA initiated an extensive line-by-line review of all its regulations. Since then, the Agency has slashed more than 1,300 pages of requirements from the Code of Federal Regulations, reducing regulatory burden by 20 million hours. This reduction is the equivalent of returning more than a half million work weeks, valued at about \$600 million, back to our society for more productive use. In a continuation of this effort, EPA expects to slash an additional 8 million hours in 1998.

While this extensive line-by-line review has improved the system overall, it has helped raise internal Agency awareness about the need to continuously streamline processes and improve efficiency, too. In a sign of internal culture change, managers and staff are showing greater attention to customer service — to local officials needing financial or technical guidance, to small companies trying to achieve environmental compliance, and to large corporations requiring permits to expand operations and bring new products to market. As the follow-

Burden Reduction Hours by Statute



CAA (Clean Air Act), CWA (Clean Water Act), RCRA (Resource Conservation and Recovery Act), TSCA (Toxic Substances Control Act), FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act), OPA (Oil Pollution Act), EPCRA/TRI (Emergency Planning and Community Right-to-know Act/Toxic Release Inventory), CZARA (Coastal Zone Act Reauthorization Amendments), CERCLA/SARA (Comprehensive Environmental Response, Compensation, and Liability Act; Superfund Amendments and Reauthorization Act), SDWA (Safe Drinking Water Act), Misc. (routine contractor support, quality assurance reports, and purchase orders)

ing examples show, today's system of environmental protection works better for these customers — program-by-program, it is becoming less burdensome and more user-friendly. Quite simply, what began as a "house-cleaning" exercise has evolved into a whole new mind set and mode of operation within the Agency.

AVOIDING A PATCHWORK OF REGULATORY REQUIREMENTS

One of the challenges associated with selling products across the country is having to comply with different regulatory requirements. In recent years, this challenge has intensified for the automobile manufacturing industry as states have focused on reducing tailpipe emissions from new cars to control smog problems. Currently, mobile source emissions account for half of the pollutants that cause smog.

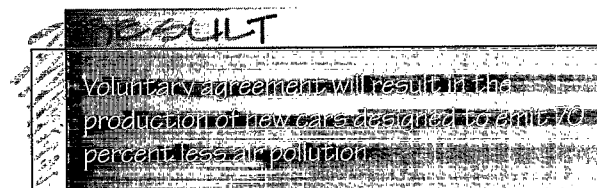
The 1990 Clean Air Act prevents EPA from mandating tighter emission standards before model year 2004. This appeared to leave states that need to reduce new motor vehicle emissions with only one option — to adopt the California program, which is more stringent than the current federal program. (Under the Clean Air Act, California is the only state with authority to develop its own standards). Some states, particularly those in the northeast, have adopted or have been considering adopting the California program. This approach concerned the auto industry due to the difficulty of complying with different requirements in different parts of the country. Under EPA's leadership, the auto industry, the states, environmentalists and

other interested parties engaged in a lengthy public process to find a better solution — a program that would meet the environmental needs of the Northeastern states, would bring about better environmental results nationally more quickly than the statutory timeframe would allow, and would help the industry avoid a patchwork of state programs.

EPA brought this process to a successful conclusion in February 1998 by brokering an agreement with the auto manufacturers whereby they voluntarily agreed to produce cars that emit 70 percent less air pollution compared to today's models. These new clean vehicles will be made available later this year in eight Northeastern states and the District of Columbia, and in model year 2001 for the rest of the country — three years earlier than EPA could mandate under the Clean Air Act.

The agreement means cleaner, safer air for millions of Americans, as well as economic opportunity for areas that might otherwise face growth and development constraints. Ultimately, nationwide availability of these cleaner new vehicles will result in pollution reductions equivalent to taking over 10 million cars off the road each year.

The agreement is beneficial to industry because it greatly reduces the difficulty and expense of a patch-



"ONE PLAN" FOR RESPONDING TO EMERGENCY SITUATIONS

In the event of an actual chemical emergency, such as a spill, what would be most useful for facility managers: one plan or nine plans? Obviously, only one, and in 1995, EPA joined several other federal agencies to develop a single, consolidated plan for complying with multiple emergency response planning requirements under nine federal statutes. One company acting on this new opportunity is Polyclad Laminates, a New Hampshire-based laminator of printed circuit boards for the computer industry. In 1997, Polyclad worked with EPA's New England office and the New Hampshire Pollution Prevention Internship program to evaluate its operations in an effort to develop "one plan" for its six facilities. This option should make it less burdensome for Polyclad and other companies to maintain a single, up-to-date plan. More importantly, it should minimize confusion and response time in an emergency situation.

work of state regulatory programs. It also is beneficial because it harmonizes federal standards and testing obligations with those of the California program, thus reducing design and testing costs. The auto industry also is benefitting from the good will and positive press generated by voluntarily agreeing to provide consumers with cleaner cars.

GETTING SAFER PRODUCTS TO MARKET

Under the Toxic Substances Control Act (TSCA), EPA serves as a gatekeeper, regulating potential unreasonable risk posed by certain new chemicals before they enter the market. Traditionally, EPA has used enforceable consent agreements and new regulations to manage new chemical risks. But these actions have proven to be very labor intensive, time consuming, and frustrating for industry as well as EPA. New chemicals are subject to regulation even though similar chemicals, in existence prior to TSCA, remain uncontrolled. Industry claims this discrepancy often creates a barrier to new product commercialization and market success. From EPA's perspective, manufacturers often do not apply the same controls to existing chemicals that are required for new chemicals even though risk levels may be comparable.

To address these shortcomings, EPA launched a special initiative, known as Environmental Technology Initiative (ETI) for Chemicals, to eliminate red tape and frustration from the review and risk management of new chemicals. Working in partnership with industry, a more flexible approach was created to overcome regulatory barriers and allow for quicker approvals of safer, environmentally preferable chemicals. Furthermore, in cases where regulations are too limited to address risks of concern, the new approach allows companies to look beyond regulatory compliance and to come up with more comprehensive risk-management strategies.

The benefits of this new approach can be seen in a recent approval of a new product from Union Carbide that essentially splits hazardous waste streams into non-polluting, low-risk components. To realize this environmental benefit, customers must handle the new products properly. Traditionally, EPA would have issued a

DEALING WITH PRODUCT BANS

While getting safer products to market as quickly and easily as possible is an obvious priority, so too, is removing products that have been banned due to high risks. In 1976, Congress passed the Toxic Substances Control Act, which among other things, banned the manufacture, processing, distribution, and use of polychlorinated biphenyls (PCBs). However, EPA was given authority to modify the bans, through rulemaking, when it finds that no unreasonable risk of injury to health or the environment will result.

In order to provide more flexibility in PCB management, EPA developed a new approach that essentially reduces duplication and costs for PCB sources through self-implementation of lower-risk activities, such as recycling or decontamination, and by allowing risk to be taken into account when determining disposal methods. It also modifies or deletes outdated requirements; harmonizes PCB requirements stemming from TSCA and other federal environmental statutes; and fosters greater coordination of federal and state permitting processes. These reforms, expected to be adopted as a final rule in 1998, are based on the first comprehensive review of PCB regulations in the 19 year history of the program. Overall, EPA estimates the rule will cut national PCB compliance and disposal costs by a half billion dollars per year over the next 20 years.

regulation to ensure proper handling practices. But under ETI for Chemicals, EPA developed an alternative risk management agreement whereby the company committed to a product stewardship campaign to ensure customer knowledge about safe and proper use.

A vice president at Union Carbide stated that this new product "might still be a gleam in the eye of our scientists and regulatory managers if not for EPA's new Environmental Technology Initiative." The company estimates that its partnership with EPA enabled their product to reach the marketplace 1 year earlier than it would have had it gone through the traditional risk management process. U.S. Senator Joseph Lieberman



"The ETI for Chemicals is an excellent example of how to make government work for the people it serves."

(D-CT) has written that "the ETI for Chemicals is an excellent example of how to make government work for the people it serves."

CLARIFICATION FOR WASTE MANAGERS

During 1997, EPA continued work on important changes to provide equally protective, but more cost-effective waste management alternatives for businesses and communities. Following continued consultation with affected stakeholders in 1997, in early 1998, EPA expects to propose a new definition of solid waste that could substantially reduce the number and types of

operations subject to hazardous waste regulation. Under the current system, companies that generate and recycle hazardous waste are subject to full hazardous waste treatment requirements. The new rule would allow some hazardous waste recycling to occur without imposing the burden of hazardous waste regulation. It also would remove regulatory disincentives that currently lead companies to choose incineration or land disposal over safe recycling.

Another significant action underway is reproposing the hazardous waste identification rule. Under the current system, once a waste is listed as hazardous, it is

PLAIN ENGLISH REGULATIONS

The difficulty in understanding federal regulations has been a longstanding criticism of federal agencies, including EPA. In order to reduce regulatory burden on our stakeholders and improve regulatory compliance, EPA has established a pilot program aimed at improving both the clarity and comprehension of regulatory language. Under the pilot, 13 regulations cutting across all program areas are being written or revised using more concise language. In addition, they are being restructured to allow users to find information more quickly. Results from this effort are becoming visible. For example, in February 1998, EPA issued a "Plain English" revision to its Superfund Local Government reimbursement regulation. This regulation helps local governments by making it easier to apply for reimbursement of money spent when responding to certain chemical spills. More "Plain English" regulations are expected in the Spring.

Before

§310.20 Eligibility for reimbursement

(a) Any general purpose unit of local government may request reimbursement for temporary emergency measures if all requirements under §310.30 are met.

(b) States are not eligible for reimbursement for temporary emergency measures and no state may request reimbursement on its own behalf or on the behalf of political subdivisions within the state.

§310.40 Allowable and unallowable costs

(a) Allowable cost. In general, allowable costs are those project costs that are eligible, reasonable, necessary and allocable to the project. Costs allowable for reimbursement may include, but are not limited to:

- (1) "Disposable materials and supplies" acquired, consumed, and expended specifically for the purpose of the response for which reimbursement is being requested (hereafter referred to as "the response");

After

§310.5 Am I eligible for reimbursement?

If you are the governing body of a county, parish, municipality, city, town, township, federally-recognized Indian tribe or general purpose unit of local government, you are eligible for reimbursement. This does not include special purpose districts.

§310.6 Are states eligible?

States are NOT eligible for reimbursement under this part, and states may NOT request reimbursement on behalf of their local governments.

§310.11 What costs are allowable?

(a) Reimbursement under this part does NOT supplant funds you normally provide for emergency response. Allowable costs are only those necessary for you to respond effectively to a specific incident that is beyond what you might normally respond to.

(b) Examples of allowable costs are:

- (1) Disposable materials and supplies you acquired and used to respond to the specific incident;

always considered hazardous — even if the toxic chemicals have been removed. This approach, while protective of human health and the environment, has the disadvantage of discouraging innovative treatment

and pollution prevention — why would a company invest in detoxifying its waste if the detoxified product was still subject to hazardous waste requirements? In 1995, EPA proposed a rule that would allow companies to test their waste, and if all potentially hazardous chemicals are at or below safe levels, then it would no longer be federally regulated as hazardous waste. Instead, it would be managed under alternative, but equally protective, state programs.

(Because of the extensive comments received by the public and EPA's Science Advisory Board, in 1997, the Agency requested an extension to revise the underlying risk assessment used in establishing safe levels. The new deadline for proposal is set for October 1999).

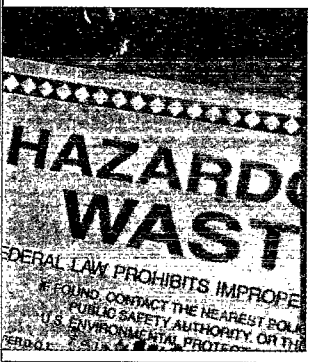
SUPERFUND REFORM

Over the past 5 years, EPA has implemented three rounds of administrative reforms covering a wide range of Superfund concerns, including: fairness in enforcement; public involvement; state and Tribal empowerment; smarter cleanups that protect public health at less cost; economic redevelopment; and program efficiency. These reforms, which are not solely responsible for recent program success, have strengthened and streamlined the program. Cleanup construction is underway or completed at 89 percent of the sites on the final National Priorities List (excluding federal facilities). Twice as many sites have been cleaned up in the last 5 years than in the first 12 years of the program. Today, cleanups are about 20 percent faster and less costly — on average, cleanups are completed two years earlier. Reforms have removed 15,000 small parties from potential cleanup liability while responsible parties are being required to pay their fair share — these parties cover approximately 75 percent of long-term cleanup costs, saving taxpayers more than \$12 billion to date.

A COMMON SENSE APPROACH FOR A COMMON PROBLEM

Controlling storm water runoff from the land that carries pollution into the nation's waterways during wet weather — has presented a substantial opportunity for reducing environmental regulatory burden. Under the Clean Water Act of 1987, new requirements for controlling storm water greatly expanded the types of operations requiring permits under the National Pollution Discharge Elimination System. For the first time ever, the law required large industries and cities as well as smaller businesses and towns to obtain permits within specified time frames to control storm water discharges from their property. In 1990, EPA issued regulations requiring permits for storm water runoff from larger municipal sewer systems (serving populations of 100,000 people or more) and industrial facilities. As a first step towards implementing these requirements, in 1995, EPA issued a rule that required permits only for sources known to be contributing to water quality problems. All other unregulated sources were to apply for permits by 2001. At that point, permits would be required for more than 19,000 municipalities and for millions of industrial and commercial sources, no matter what the size.

To avoid this massive permitting burden — for EPA and for the many public and private sources that would be subject to the requirements — EPA worked with multiple stakeholders to develop a more rational, risk-based approach to storm water management. The proposed rule, issued in late 1997, identifies sources that need to be controlled through regulation, but provides automatic coverage for two broad categories of storm water discharges: small municipal separate storm sewer systems located in urbanized areas, and construction activities that disturb equal to or greater than one and less than five acres of land. Other facilities and industrial and construction activities, as well as small municipal separate storm sewer systems outside urbanized areas, are to be permitted on a case-by-case basis. The rule also provides an exemption for industrial facilities that could certify their operations resulted in “no exposure” to storm water by moving all industrial activities and contaminants indoors or placing them under cover from wet weather — an exception that could apply to as many as 70,000 facilities.



EPA believes this risk-based approach will reduce adverse impacts to water quality and aquatic habitat by reducing storm water pollution while regulating only those sources with potential for imposing environmental harm. It will substantially decrease the national cost of storm water management — in contrast to the billions of dollars estimated for permitting all sources, the cost for the more risk-based approach is estimated at \$511 million.

CREATIVE PERMITTING

Because any change in operational status can trigger the need for regulatory review of air emission permits, companies can be hampered from rapidly responding to changes in market demand. To address this problem, EPA initiated the pollution prevention permitting pilot (P4) to test ways of providing more operational flexibility within the existing regulatory structure and of achieving equal if not better environmental protection in part through improved pollution prevention techniques. Through a series of pilot projects, EPA is working with states and industry to develop innovative permits that pre-approve certain operational changes over the five-year life of an air permit without regulatory delay.

EPA expects the P4 program to produce several important benefits. First, promotion of pollution prevention opportunities and overall net reductions in emission levels will improve environmental protection. Second, the experience of developing these innovative permits on a pilot basis will help lay the framework for potential broader application to other sources. Third, operational flexibility may help companies avoid unnecessary financial losses that can occur as a result of regulatory delay. One company estimated that the added operational flexibility provided by its pilot permit helped save up to \$1 million a day. Finally, streamlining the review process is expected to lower workload burdens for both air emission sources and permitting authorities, allowing each to focus on higher priority issues.

BREAKING THROUGH NEW TECHNOLOGY BARRIERS

Numerous government and private groups have identified the lack of an organized program to produce independent, credible performance data as a major impediment to the acceptance and use of more efficient, less costly environmental technologies. Such data are needed by technology buyers and permittees both at home and abroad to make informed environmental protection decisions. In general, buyers and permittees have favored traditional, but proven, technologies rather than new ones.

To break through this resistance and to accelerate the development of new technologies, EPA established a five-year pilot program in 1995, called the Environmental Technology Verification (ETV) Program, to verify the performance of innovative technologies. In its first 2 years of operation, 12 new environmental technologies have been verified, and 35 additional verifications are underway. Preliminary feedback from technology vendors indicates substantial market acceptance of the performance evaluations and that the ETV verification statements are useful in establishing new technology credibility. One vendor reported approximately \$200,000 in sales of a \$30,000 field monitoring device within the first 3 months after issuance of the ETV verification. EPA expects to verify the performance of over 300 innovative technologies within 10 years, greatly expanding investment options and providing decision-makers with more assurance when confronted with major technology investment decisions.

As a precursor to verifying new technologies, EPA established a program to advance new technology development. The Advanced Measurement Initiative tests new methods for detecting and analyzing environmental problems. Last year, the first year of program operation, projects focused on finding better ways of detecting wetland changes, characterizing conditions at mining waste sites, and collecting air emissions data from continuous monitoring devices. Results from these efforts will inform and guide companies interested in creating new products for the environmental technology market.



CONCLUSION

Providing strong, consistent, environmental and public health protection is not a simple process; it occurs through a highly varied system with multiple dimensions, diverse players, and often complex challenges. As this report shows, the opportunities for affecting progressive change within such a system are great, and yet, consistent with the approach advocated by former EPA Administrator William Ruckelshaus and his fellow representatives on the Enterprise for the Environment project, this process is being managed with great care. Where obvious common sense reforms are needed, the Agency is acting swiftly. However, before permanently adopting fundamentally new approaches into the nation's environmental regulatory system, the Agency first requires thorough testing and evaluation — an approach that sets the stage for continued progress without compromising the substantial gains in environmental and public health protection that have been achieved over the past three decades.

During the past year, progress toward advancing public health and environmental protection was made on a number of important fronts. State participation in NEPPS rose to 30, up from the 6 that were involved in the initial pilot; interest in testing alternative environmental management strategies outside the traditional regulatory framework increased under Project XL; sector-based management came to fruition when metal finishers announced a voluntary program to go beyond compliance and achieve even cleaner operations across the industry as a whole; the nation's first multimedia environmental regulation was issued to further reduce toxic emissions from the pulp and paper industry; efforts to increase public access to environmental information increased; more compliance assistance was offered while enforcement against polluters was stronger than ever before; and regulatory burden associated with unnecessary paperwork was slashed by another 5 million hours.

These and other advancements featured in this report demonstrate meaningful results for reinventing the nation's environmental regulatory system; looking ahead, EPA is committed to building on this success through a continued course of prudent, but progressive actions. These actions will draw upon the valuable lessons learned through the reinvention process, to date, such as the need to clarify how innovations will be managed in the context of traditional regulatory programs and the need to establish realistic time frames for moving an idea from concept to reality. As EPA pursues new reinvention opportunities, it must take these and other important lessons and use them to help shape responsible public policy. In so doing, the Agency can propel environmental management into a new era where continuous environmental improvement is not only expected, but widely achieved in society.

APPENDIX: STATUS OF EPA REINVENTION PROJECTS

EPA's reinvention activities have increased and evolved considerably since the initial "Reinventing Environmental Protection" agenda was launched in March 1995. The following matrix provides a brief description and status of the initial reinvention projects—with distinction for the 25 highest priority projects. It does not reflect the full range of EPA's reinvention activity nor all of the projects featured in this report.

Initial "List A" (High-Priority) Projects

Project description	Status
<ul style="list-style-type: none"> • Open-market air emission trading. For smog-creating pollutants, establish an open market for trading emission credits, with accountability for quantified results, and encourage new trading options. 	<ul style="list-style-type: none"> • Proposed emissions-trading policy August 1995. • Draft final policy currently under internal Agency review. • Provided guidance to states to facilitate interstate trading.
<ul style="list-style-type: none"> • Effluent trading in watersheds. Promote use of effluent trading to achieve water quality standards (e.g., establish a framework for different types of trading, issue policy guidance for permit writers, and provide technical assistance.) 	<ul style="list-style-type: none"> • Final policy on effluent trading issued in 1995. • Draft framework ("how to" guidance) published in 1996. Extensive stakeholder input being sought and evaluated before a final framework is issued. • Numerous pilot projects in progress around the United States.
<ul style="list-style-type: none"> • Refocus RCRA on high-risk wastes. Reform hazardous waste regulation so that: a new "common-sense" definition of solid waste is developed to simplify industry compliance with RCRA rules; low-risk wastes are exempted from hazardous waste requirements; and states have greater latitude to design management requirements for low-risk, high-volume wastes from cleanup operations. 	<p>Forthcoming proposed rule revising the definition of solid waste: February 1999.</p> <ul style="list-style-type: none"> • Forthcoming proposed rule revising the definition of hazardous waste to remove stringent requirements for low-risk wastes: October 1999. • Forthcoming final rule reforming management requirements for remediation wastes to promote better and faster cleanups: June 1998. • Forthcoming proposed rule shifting regulation of lead-based paint debris from RCRA to TSCA to make it easier to remove lead-based paint: September 1998.
<ul style="list-style-type: none"> • Focus drinking water standard setting on highest health risks. Establish a risk-based approach to regulatory development, and tailor drinking water monitoring requirements to reflect local contaminant threats. 	<ul style="list-style-type: none"> • Successfully worked with Congress to revise the former statutory requirement that EPA regulate 25 contaminants annually into a more flexible mandate that allows EPA to set regulatory priorities based on health risks.

	<ul style="list-style-type: none"> • Published ANPRN July 1997 to initiate process of streamlining drinking water monitoring requirements for 64 chemical contaminants. • Finalized guidelines August 1997 on additional monitoring flexibility for states. • Planned stakeholder discussions to help evaluate data received in response to July 1997 ANPRN: spring 1998. • Stakeholder input will help determine appropriate direction for chemical monitoring revisions.
<ul style="list-style-type: none"> • Expand use of risk assessment in local communities. Promote risk-based decision-making at the local and regional level by providing citizen access to appropriate tools, resources, and information. 	<ul style="list-style-type: none"> • Developed online <i>Green Communities Tool Kit</i> to provide community planning guidance including basic elements of comparative risk assessment to help communities determine their environmental priorities. • Since 1995, provided technical assistance to more than 20 communities on risk-based priority setting, use of environmental indicators, community planning, and consensus building (through cooperative agreements). • Also since 1995, promoted risk-based decision making at local level through cooperative agreements with the National Governors Association and the International City/County Managers Association.
<ul style="list-style-type: none"> • Flexible funding for states and tribes. Provide an option for state and tribal governments to combine their existing grant funds to reduce administrative burdens and to improve environmental performance by allowing states and tribes to target funds to their high-priority environmental problems. 	<ul style="list-style-type: none"> • Developed National Environmental Performance Partnership System (NEPPS) in 1996 as an umbrella framework for Performance Partnership Agreements (PPAs) and/or consolidated Performance Partnership Grants (PPGs) for states to direct resources where they are needed most to address environmental priorities. • Approved performance partnership grants to 36 states by end of FY 1997 and arranged PPAs with 30 states. • Forthcoming regulations on PPGs and other grants to states: proposal mid-1998; final by year's end.
<ul style="list-style-type: none"> • Sustainable development challenge grants. Offer competitive action grants to encourage place-based/community-based management that combines sustainable economic development with sound environmental practices. 	<ul style="list-style-type: none"> • Established Sustainable Development Challenge Grant (SDCG) Program in 1996. • Announced 10 SDCG awards September 30, 1996.

	<ul style="list-style-type: none"> • Expanded SDCG program in 1997 to fund 45 projects for \$5 million. • Forthcoming 1998 SDCG grant solicitation: April through May 1998.
<ul style="list-style-type: none"> • Regulatory negotiation and consensus-based rulemaking. Review all rules to identify candidates for negotiated rulemaking — a process that involves all stakeholders in developing agreement on how best to regulate. Use the Common Sense Initiative (CSI) process as a vehicle for identifying regulations that might be developed through negotiation and consensus. 	<ul style="list-style-type: none"> • Continued monitoring EPA's regulatory agenda to identify appropriate candidates for negotiated rulemakings. • Increased community and stakeholder involvement, partnership programs, and consensus-based project development in nearly all facets of EPA's work. • Negotiated agreement with metal finishing industry in October 1997 under CSI that will reduce pollution below what is required under current law.
<ul style="list-style-type: none"> • 25 percent reduction in paperwork. Reduce existing reporting and recordkeeping burden hours by 25 percent, beginning with local governments and small businesses. Initiatives already underway include expanded use of electronic reporting and recordkeeping. 	<ul style="list-style-type: none"> • Cut paperwork burden on the regulated community by 20 million hours as of November 1997. • EPA's paperwork reduction initiative now conjoined with OMB's governmentwide burden reduction initiative, which targets a goal of 25 percent reduction in paperwork burden by the end of FY 1998.
<ul style="list-style-type: none"> • One-stop reporting. Create a consolidated system for environmental reporting. Initiate as a pilot program in coordination with the states before applying more broadly. 	<ul style="list-style-type: none"> • Established one-stop reporting program in 1995. • In 1996 and 1997, awarded one-stop grants of \$500,000 each to a total of 13 states (to MA, MO, NJ, UT, and WA in 1996; and to PA, WV, GA, MI, MN, NM, OR, and TX in 1997). • In 1997, launched Reinventing Environmental Information (REI), a broad information reform initiative that incorporates one-stop program goals in its action plan for establishing common data standards, implementing electronic reporting, and reengineering the Agency's national information systems in collaboration with the states. • Up to 8 more one-stop grants of \$500,000 will be awarded in April 1998.
<ul style="list-style-type: none"> • Consolidated federal air rules. Work with key industries, beginning with the chemical industry, to streamline federal air compliance requirements. 	<ul style="list-style-type: none"> • Forthcoming proposed rule consolidating and simplifying 16 different air-emission rules for the synthetic organic chemical industry: spring 1998.

<ul style="list-style-type: none"> • Risk-based enforcement. Target enforcement actions against significant violations that present the greatest risks to human health and the environment. Develop tools that allow analysis of risk as well as patterns of violations among corporations and facilities within a particular sector. Make results publicly available. 	<ul style="list-style-type: none"> • Developed sector-facility indices for five industries that provide compliance history and environmental performance information on a facility or sector basis. Internet posting of this information is pending settlement of a lawsuit contesting its publication. • Evaluated several potential risk assessment methodologies for comparing relative risks of specific facilities, based on cross-media emissions; expect to announce a decision concerning the implementation of a particular methodology in April 1998.
<ul style="list-style-type: none"> • Compliance incentives for small businesses and communities. Provide compliance assistance, without fear of fines and penalties, to responsible small businesses and small communities who volunteer to comply with environmental regulations. Allow up to 180 days for small businesses to correct violations identified through federal or state technical assistance programs. Provide similar compliance assistance for small communities. 	<ul style="list-style-type: none"> • For small businesses seeking compliance assistance, authorized a 180-day grace period effective June 1996. Issued guidance in 1995 encouraging states to allow small communities a 180-day grace period when they have committed to compliance assistance. • To support states committed to offering compliance assistance and incentives to communities, offered technical assistance and some grant funding for compliance assistance and training. To date, SD (FY 1996) and MO and WA (FY 1997) have received grants. • EPA report on impact of compliance incentives/compliance assistance on small businesses and communities due to Congress by end of March 1998.
<ul style="list-style-type: none"> • Small business compliance assistance centers. Establish national customer centers for six small business sectors that face multiple environmental requirements. The centers should provide up-to-date, easily accessible and understandable compliance and pollution-prevention information. 	<ul style="list-style-type: none"> • Four centers (i.e., autos, metal finishing, agriculture, and printing) established and operational as of 1996. • Forthcoming opening of printed wiring board manufacturing center: April 1998. • Three additional centers projected for startup fall 1998: chemical industry, local government, and transportation.
<ul style="list-style-type: none"> • Incentives for auditing disclosure and correction. To reward responsible companies and eliminate costly litigation and red tape, provide incentives through reduced penalties for companies that disclose and promptly correct violations — except for criminal violations, imminent and substantial endangerment, or repeat violations. 	<ul style="list-style-type: none"> • Issued policy in January 1996 on incentives for self-policing, disclosure, and correction. • Violations disclosed by 247 companies at over 760 facilities nationwide. • By January 1999, EPA is required to conduct and publish a followup study on the results of the audit policy.

<ul style="list-style-type: none"> • Self-certification. Develop a self-certification program to handle low-risk pesticide registration activities, and then expand self-certification into other appropriate program areas. 	<ul style="list-style-type: none"> • Began streamlined pesticide label amendment process in 1996, allowing registrants to submit a simple notification to EPA before making label changes that do not create risks (rather than applying for an amended registration). • Self-certification process established in January 1998, allowing registrants to satisfy product chemistry data requirements for registration by submitting a simple certification notice to EPA. • Forthcoming by end of calendar year 1998: EPA report analyzing most common causes of pesticide registration application rejections. This information will be used to educate registrants on how to avoid common, but costly mistakes.
<ul style="list-style-type: none"> • Public electronic access. Make information from all EPA programs available through Internet and other electronic means that Americans and local organizations can access in their homes, schools, and libraries. 	<ul style="list-style-type: none"> • Redesigned EPA web site <www.epa.gov> for easier public access to desired information. Redesigned site includes news banners, keyword and zip code-based search capabilities, and environmental and regulatory information tailored to the needs of various stakeholder groups. Approximately 27 million users accessing web site each month.
<ul style="list-style-type: none"> • Center for Environmental Information and Statistics. Establish a new Agencywide center charged with assessing, consolidating, and disseminating environmental information. 	<ul style="list-style-type: none"> • Administrator announced plans, in February 1997, to establish a new Center for Environmental Information and Statistics (CEIS). • Startup date for new CEIS website: late spring 1998.
<ul style="list-style-type: none"> • Project XL. Manage Project XL to provide a limited number of responsible companies a structured opportunity to develop and employ an alternative environmental strategy, replacing the requirements of the current system if certain conditions are met. 	<ul style="list-style-type: none"> • Reached final XL agreements with six companies. • Negotiations on seven more XL projects underway. • Three additional proposals in technical review. • Ultimately, EPA expects to test pilot 50 proposals.
<ul style="list-style-type: none"> • Alternative strategies for communities. Join with states and communities to conduct pilot projects that will demonstrate and assess the merits of community-designed and directed strategies for achieving environmental and economic goals. The pilots will be undertaken with communities seeking innovative alternatives to current approaches and those grappling with limited ability to meet current regulatory requirements. 	<ul style="list-style-type: none"> • Project XL for Communities: Solicited proposals from communities in November 1995. Five projects presently under development or negotiation.

	<ul style="list-style-type: none"> Promoting community-based environmental protection (CBEP) on a broader scale, both by working directly in a limited number of communities and by developing essential "capacity-building" tools and resources for CBEP and making these available to communities, states, and citizens. These include: environmental information and monitoring systems; guidance on socioeconomic analysis; flexible grants; technical assistance; negotiation and facilitation; and training.
<ul style="list-style-type: none"> Alternative strategies for agencies. Starting with a pilot project focusing on two to four Department of Defense (DOD) facilities, work with other federal agencies having environmental responsibilities to ensure that these federal programs achieve results in the most cost-effective ways, while eliminating needless bureaucratic procedures. Develop a memorandum of understanding with DOD defining performance goals and an optimal approach for achieving them. The approach agreed upon must combine pollution prevention, compliance, and technology research projects. 	<ul style="list-style-type: none"> Finalized Project XL agreement in November 1997 with DOD's Vandenberg Air Force Base in Santa Barbara, California. Two additional projects are in negotiation stage: Plant Four (Lockheed-Martin), and Elmendorf Air Force Base. Two projects in technical review stage. Signed Memorandum of Understanding with DOD to implement specified performance goals and approaches to achieve them.
<ul style="list-style-type: none"> Third-party audits for industry compliance. As one approach for streamlining compliance oversight, explore the use of independent, certified, private-sector firms to audit industry environmental performance. The Environmental Leadership pilot program—with input from environmental groups, industry, and states—will evaluate criteria for third-party audits that will assure the public that environmental requirements are being met, and any violations disclosed and promptly corrected. 	<ul style="list-style-type: none"> As part of nationwide Environmental Leadership Program (ELP) pilot for industrial and federal facilities, tested third-party auditing at several facilities. Results being used as basis for potentially developing a permanent performance-based reward and recognition program. Concurrent testing of third-party audit certifications at the New England regional level (through Star Track).
<ul style="list-style-type: none"> Multimedia permitting. Evaluate as a mechanism for addressing all releases at a facility through a single permit and encouraging facilities to pursue performance-based approaches. 	<ul style="list-style-type: none"> Issued report, <i>Multimedia Pollution Prevention Protocols</i> (EPA 902-R-97-003), in 1997 summarizing state multimedia permitting efforts and giving recommendations on ways to promote the multimedia approach.

- **Design for the Environment — “Green Chemistry Challenge.”**

Jointly sponsor, with the chemical industry, a program to recognize and promote innovative chemical technologies that further pollution prevention in industry.

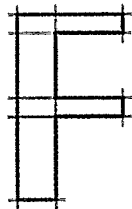
- Established Presidential Green Chemistry Award program in partnership with the American Chemical Society, the Council for Chemical Research, the National Research Council, and stakeholder groups.
- Made five awards in 1996, five again in 1997, to academic institutions, small businesses, and the chemical industry.
- Have received nominations for 1998 awards from academic institutions and from companies in numerous industrial sectors across the United States.

Initial "List B" Projects (Other Significant Actions)

Project description	Status
<ul style="list-style-type: none"> • Facilitywide air emissions. Conduct demonstrations of facilitywide limits for air emissions that allow companies increased management flexibility to use least-cost control options to meet air-permit requirements. 	<ul style="list-style-type: none"> • Total of nine demonstration projects at industrial sites around the country: five active, four completed or close to completion. • Guidance forthcoming, based on lessons learned from demonstration projects, on facilitywide permitting for air emissions: December 1998.
<ul style="list-style-type: none"> • Flexibility in meeting effluent discharge deadlines. Propose targeted Clean Water Act revisions to extend compliance schedules for industrial wastewater treatment standards for companies that apply innovative treatment approaches that prevent pollution. 	<ul style="list-style-type: none"> • Crafted proposed amendments to Clean Water Act (CWA) that include incentives for pollution prevention. • Further action contingent on Congressional reauthorization of CWA.
<ul style="list-style-type: none"> • Eliminate millions of stormwater permit applications. Work with stakeholders to develop a risk-based approach to stormwater management by limiting individual permits to only those sources that are known to contribute to water quality impairment. 	<ul style="list-style-type: none"> • Consulted extensively with small businesses and other stakeholders to work through stormwater permit issues affecting them. • Proposed rule January 1998 to cut requirements for 7 million sites, including 3,500 small municipalities and 110,000 construction sites between 1 to 5 acres.
<ul style="list-style-type: none"> • Exempt low-risk pesticides and toxic chemicals from regulation. Exempt low-risk active ingredients from pesticide regulation. Propose a similar exemption for low-risk chemicals under TSCA, for which manufacturers must now submit premanufacturing notices. 	<ul style="list-style-type: none"> • Exempted 31 low-risk chemicals from being regulated as pesticide active ingredients (final rule March 1996). • Forthcoming proposed rule to exempt another 75 low-risk pesticide active ingredients from regulation: December 1998 or early 1999. • TSCA premanufacturing notifications (PMNs) no longer required for polymers that meet particular low-risk criteria (March 1995 final rule).
<ul style="list-style-type: none"> • Environmental forecasting to anticipate future environmental problems. Establish a program to help identify and characterize emerging environmental problems, taking guidance from a new report by the EPA Science Advisory Board (<i>Beyond the Horizon: Using Foresight to Protect the Environmental Future</i>, 1995). 	<ul style="list-style-type: none"> • To help EPA lay groundwork for recommended "early warning system," the SAB convened a series of meetings and workshops to explore various methods for projecting future environmental risks. • Prompted by the SAB's 1995 report, <i>Beyond the Horizon</i>, the G-7 countries have devoted their April 1997 and February 1998 meetings to discussions of transnational environmental forecasting issues.

<ul style="list-style-type: none"> • State and tribal flexibility for municipal landfill permits. Encourage states and tribes to implement a flexible, performance-based approach for permitting municipal landfills by proposing clear criteria for state and tribal programs consistent with that approach. 	<ul style="list-style-type: none"> • Proposed "land disposal flexibility program" rule August 1997 outlining criteria for state programs. • Forthcoming final rule giving states flexibility to run performance-based programs for permitting municipal landfills: April 1998.
<ul style="list-style-type: none"> • Save billions on PCB disposal. Revise PCB disposal regulations to reduce the number of permits required, eliminate duplicative state and federal controls, and give states and the regulated community flexibility to choose less expensive disposal methods as appropriate. 	<ul style="list-style-type: none"> • Notice of final rulemaking to amend existing PCB disposal regulations: December 1996. • Forthcoming final rule giving states and regulated community flexibility to choose the most cost-effective PCB disposal methods: May 1998.
<ul style="list-style-type: none"> • Simplify air permit revision requirements. Develop a streamlined process for revising air quality permits that allows states to build on their existing programs and avoid unnecessary regulations. 	<ul style="list-style-type: none"> • Proposed rule May 1997 streamlining revision process for air permits. • Forthcoming final rule streamlining the air permit revision process and giving states added flexibility in administering air permit programs: mid-1999.
<ul style="list-style-type: none"> • Simplify review of new air pollution sources. Streamline EPA's new source review process to provide more flexibility, reduce the number of industry activities subject to major review as new sources, reduce permit review times, and create incentives for use of innovative technologies. 	<ul style="list-style-type: none"> • Proposed rule July 1996 to streamline review of new air pollution sources and encourage technology innovations. • Forthcoming final rule reforming EPA's New Source Review program: December 1998.
<ul style="list-style-type: none"> • Simplify water permit paperwork. Reduce paperwork burdens for municipalities and businesses by simplifying the permit application forms for water discharges. 	<ul style="list-style-type: none"> • Proposed rule in December 95 simplifying water permit paperwork for municipalities. • Forthcoming final rule simplifying permit application forms for municipalities: June 1998. • Forthcoming proposed rule simplifying water permit paperwork for industrial sources: September 1998. • Final rule for industrial sources scheduled for March 2000.
<ul style="list-style-type: none"> • Streamlining RCRA corrective action procedures. Promote "faster, better" cleanups under RCRA by responding to a number of promising ideas identified through discussions with outside stakeholders, such as reducing government oversight and expediting use of interim protective measures. 	<ul style="list-style-type: none"> • Forthcoming final rule establishing flexible, performance-based corrective action procedures: mid-1999.

<ul style="list-style-type: none"> • Flexible compliance agreements for specific industries. Develop experimental EPA/Industry Compliance Agreements to allow companies to voluntarily disclose violations and correct them in a timely manner in exchange for reduced penalties. 	<ul style="list-style-type: none"> • In 1997, developed flexible compliance agreements with three industry sectors: natural gas processors (liability capped for 62 companies that self-disclosed having not met TSCA reporting requirements); the chemical industry (\$1 million liability limit for 89 companies that disclosed chemical exposure and incident reports); and the food sector (liability no more than \$100 for 117 companies that failed to provide right-to-know data to local emergency personnel).
<ul style="list-style-type: none"> • Independent study on collecting and using information more effectively. Commission a study on ways to improve data collection and management at EPA, and use the study recommendations in designing a center for environmental information and statistics. 	<ul style="list-style-type: none"> • Consolidated with initiative listed under "high-priority projects" as Center for Environmental Information and Statistics (CEIS)—CEIS operations scheduled to begin late spring 1998.
<ul style="list-style-type: none"> • Electronic data transfer. Establish a system to allow facilities to report monitoring results electronically, thereby reducing monitoring burdens while enhancing enforceability or accountability. 	<ul style="list-style-type: none"> • Pilot projects in states being coordinated through EPA's one-stop program. • "Reinventing Environmental Information" (REI) initiative, announced July 1997, commits EPA to making electronic reporting option available to all regulated entities within five years.



or more information on EPA's reinvention activities, contact the Office of Reinvention at 202 260-4261 or send an email message to reinvention@epa.gov. Information can be found on the Internet at www.epa.gov/reinvent. For quick access to specific projects mentioned in this report, see the following list of Internet addresses:

Beach Watch

www.epa.gov/ostwater/beaches/

Brownfields

www.epa.gov/brownfields/

Center for Environmental Information and Statistics (CEIS)

www.epa.gov/reinvent/notebook/ceis.htm

Common Sense Initiative

www.epa.gov/commonsense/

Community Based Environmental Protection

www.epa.gov/ecocommunity/

Drinking Water

www.epa.gov/OGWDW/programs.html

Envirofacts

www.epa.gov/enviro/index_java.html

EPA Home Page

www.epa.gov/

Enforcement and Compliance

www.epa.gov/oecaerth/index.html

One Stop Reporting

www.epa.gov/reinvent/onestop/

Partnership Programs

www.epa.gov/partners/

Pay As You Throw

www.epa.gov/epaoswer/non-hw/paytold/public.htm

Project XL

www.epa.gov/ProjectXL/

Storm Water Permitting

www.epa.gov/reinvent/notebook/rswp.htm

Surf Your Watershed

www.epa.gov/surf/