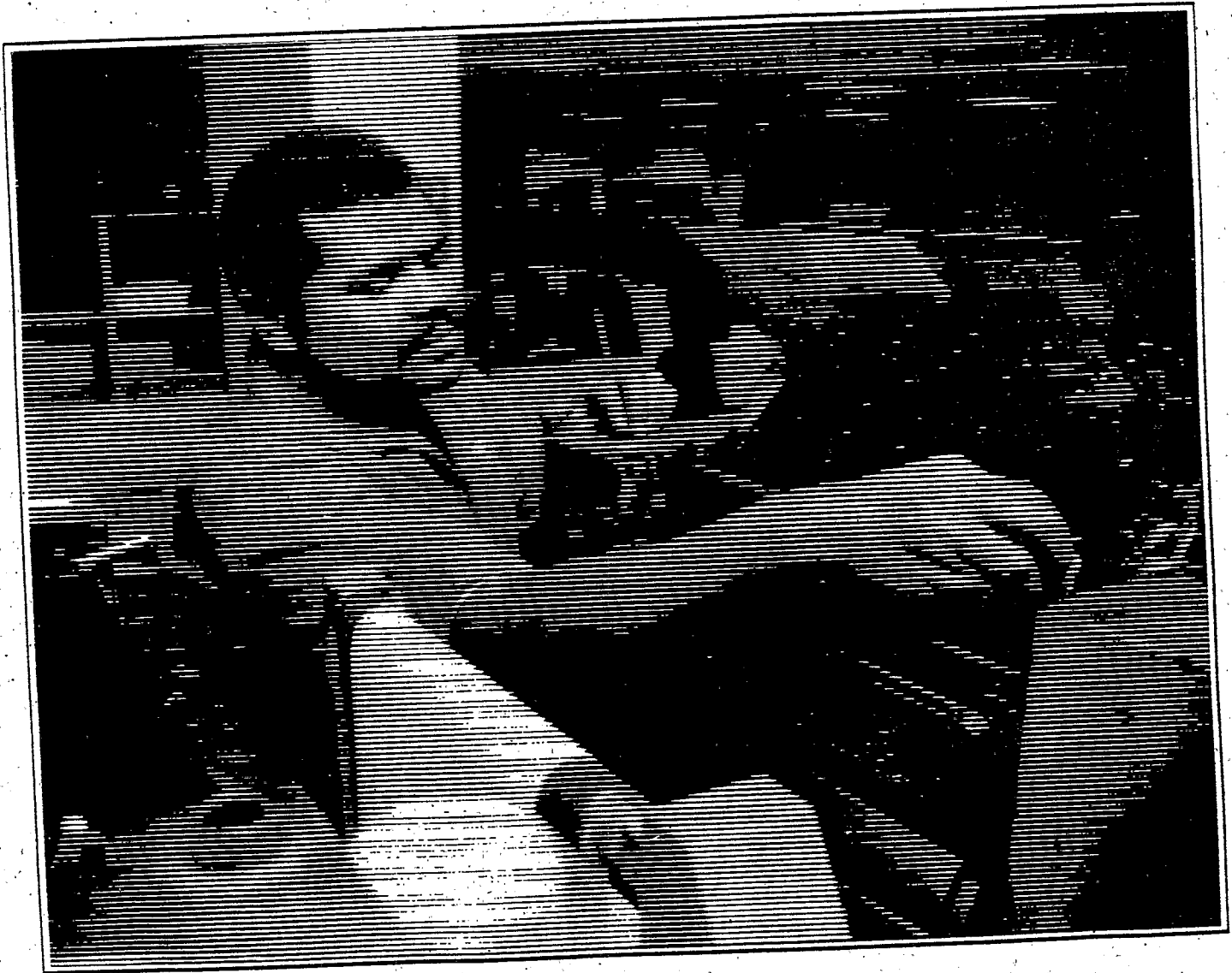




EPA Pollution Prevention Accomplishments: 1994

Incorporating Pollution Prevention Into Business Decisions

EPA/100/R-95/001



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"Everybody knows pollution prevention pays."

-President Bill Clinton, March 16, 1995

"I expect pollution prevention to continue to evolve at EPA. As we learn more, no doubt we will have to make adjustments to our programs that reflect new knowledge. In the final analysis, what is critical in our efforts to advance pollution prevention is a willingness to take chances, to question established practices and to experiment with new ideas, and above all to cooperate with each other as we try to harmonize environmental protection with economic growth."

*-EPA Administrator Carol Browner, June 15, 1993
Pollution Prevention Policy Statement*

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I.

Introduction

Environmental Protection: 1970 - 1994

When the U.S. Congress began to pass environmental legislation in the early 1970s, it worked issue by issue, and often crisis by crisis. Incidents such as the Cuyahoga River fire, contamination of drinking water in New Orleans, and toxic contamination at Love Canal spurred the passage of the Clean Water Act, the Safe Drinking Water Act, and the Superfund law, respectively. This symptom-by-symptom, crisis-by-crisis approach continued through the 1980s and early 1990s.

The benefits of this approach are indisputable: over the last 25 years, the U.S. has made great progress protecting human health and the environment by recycling, treating, and safely disposing of pollutants and waste. We no longer have rivers catching on fire. Our skies are clearer. And U.S. environmental expertise and technology are in demand throughout the world. There is much to be proud of.

But the single-media, end-of-pipe approach has had other, unintended, consequences. The U.S. now has 16 major national environmental laws on the books, which are overseen by some 74 Congressional committees and subcommittees. There are thousands and thousands of pages of detailed, sometimes confusing environmental regulations. This fragmented approach has often resulted in pollution shifting -- for example, moving pollutants from air to water and water to land -- instead of pollution prevention, frustration with the complex process of environmental regulation, and too little environmental protection at too high a cost.

Clearly, the U.S. is reaching the limits of relying largely on end-of-pipe approaches. While past progress is impressive, there is still a long way to go. For example, 40% of our rivers and lakes are still not suitable for fishing or swimming; 54 million Americans still live in areas that do not meet federal air quality standards; and one in four Americans live within four miles of a toxic dump site. To take environmental protection to the next level, and at the same time enhance the competitiveness of U.S. companies, EPA must work in partnership with industry, government at the state, local, and tribal level, and stakeholders representing environmental, community, and work force issues to prevent pollution at the source, prior to recycling, treatment, and disposal.

Pollution Prevention: Environmental and Economic Benefits

Businesses have prevented pollution by changing their equipment and input materials, reformulating or redesigning their products, and improving management, training, inventory control, and materials handling. Pollution prevention has become their preferred approach to environmental protection for two reasons: Pollution prevention protects the environment and saves money. Pollution prevention is potentially the most effective method for reducing risks to human health and the environment because it is the surest way to eliminate the risks inherent in any release of pollutants into the environment and the surest way to avoid the inadvertent transfer of pollutants across media that may occur with traditional end-of-pipe controls. In addition, pollution prevention protects natural resources for future generations by avoiding excessive levels of wastes and residues and by minimizing depletion of natural resources. Pollution prevention is also the most cost-effective method of environmental protection because it promotes facility efficiency, reduces the need for expensive end-of-pipe treatment and disposal technologies, and reduces the long-term liabilities associated with releases into the environment.

There are literally hundreds of cases where companies have reduced their impact on the environment and saved millions of dollars through pollution prevention. For example:

- Participants in EPA's Green Lights program have collectively prevented over 1.2 billion pounds of carbon dioxide emissions, 8.7 million pounds of sulfur dioxide emissions, and 4.1 million pounds of nitrous oxide emissions. Participants realize an average return of over 25% on investments in energy-efficient lighting, and may reduce their electricity bills by 40% or more.
- By implementing the recommendations of the "DuPont Chambers Works Waste Minimization Study," a Supplemental Environmental Project conducted pursuant to a consent decree with EPA, DuPont will realize savings of close to \$15 million a year and reduce emissions from its Chambers Works plant by almost 9 million pounds annually.
- Pollution prevention technical assistance provided by the Massachusetts Office of Technical Assistance (OTA) has resulted in impressive pollution reductions and cost savings: results from 78 companies (only one-fifth of the total companies OTA works with) show cost savings of \$3.6 million, and pollution reductions of over 5 million pounds.
- The Tennessee Waste Reduction Assistance Program (WRAP) conducts pollution prevention site assessments in a variety of industries. A study of 31 companies revealed that companies saved an average of \$41,500 per year by adopting the recommendations of WRAP experts. These recommendations resulted in prevention of 450,000 pounds of air emissions, 1.3 million pounds of hazardous waste, and 8.8 million pounds of solid waste.

EPA's Pollution Prevention Policy

While many businesses have made outstanding progress in preventing pollution, there is a long way to go before pollution prevention becomes a standard business practice, as recognized by Congress in passing the Pollution Prevention Act of 1990. EPA recognizes that traditional approaches to environmental protection have inhibited pollution prevention. The Agency's Pollution Prevention Policy Statement, signed by Administrator Carol Browner on June 15, 1993, outlines EPA's strategy for implementing the Pollution Prevention Act, and provides a starting point for a new approach to environmental protection. The policy states that EPA will integrate pollution prevention into Agency programs through:

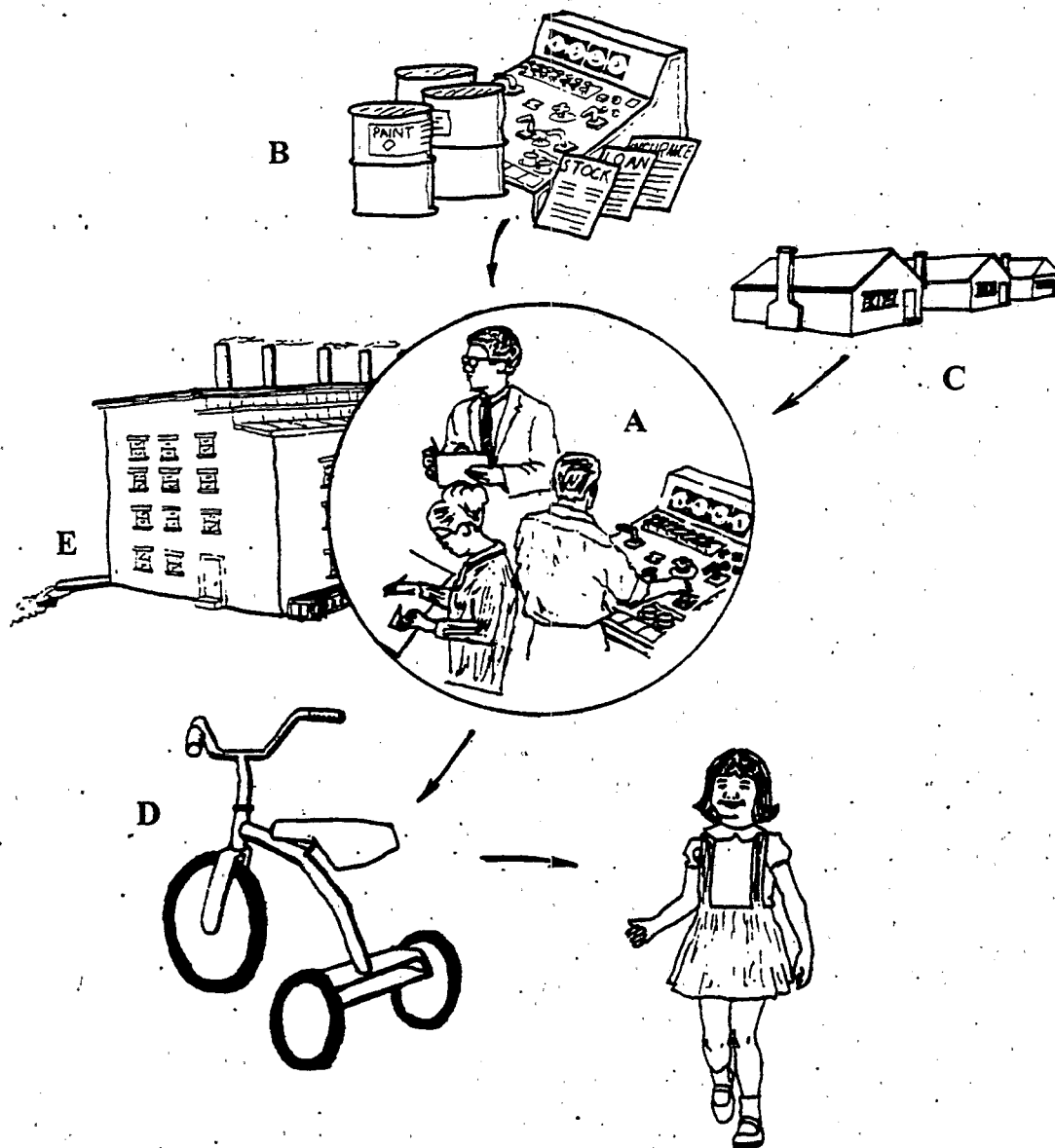
- Regulations and Compliance
- State and Local Partnerships
- Private Partnerships
- Federal Partnerships
- Public Information/The Right-to-Know
- Technological Innovation
- New Legislation

To be effective, EPA's pollution prevention programs must fit in the context of the many factors that confront people who work at industrial, agricultural, and other facilities. As illustrated on page 4, environmental regulations are only one of many issues that have an impact on the day-to-day operations of a business. (While the picture shows a manufacturer of tricycles, the analysis is easily applied to a wide range of operations, including agriculture.)

Environmental laws and regulations, for example the Clean Air Act (CAA), Clean Water Act (CWA), and the Resource Conservation and Recovery Act (RCRA) cover issues such as air emissions, discharges to water, and the management of hazardous waste. This single-media approach is illustrated by the smokestacks, effluent pipe, and waste barrels (letter E in the picture). From the facility perspective, these separate air, water, and waste requirements often appear confusing and at times even inconsistent. Many businesses have responded to their disjointed regulatory environment by separating environmental decisions from core business decisions. Environmental matters are often handled by compliance specialists, who focus on the complex regulatory scheme and have little interaction with product and process designers, production managers, and others at the core of the business.

In addition, myriad other issues confront equipment operators, designers, and managers (letter A in the picture) on a daily basis. These include purchasing and using supplies and equipment (B), interacting with their community (C), and most importantly, responding to customer needs (D). All of these decisions have substantial environmental implications. ***The challenge for EPA is to create a framework that allows and encourages businesses to integrate pollution prevention into their core, day-to-day decisions.***

Pollution Prevention from the Business Point-of-View



A New Framework for Environmental Protection

The **Common Sense Initiative (CSI)** is EPA's most visible effort to create a prevention-oriented framework for environmental protection. This partnership between EPA, industry, environmental and community groups, labor, and other federal, state, and local government agencies will study the environmental policies facing six industry sectors and recommend changes to those policies to encourage cleaner, cheaper, and smarter approaches to environmental protection.

Initially, CSI will focus on six industry sectors: automobile assembly, computers and electronics, iron and steel, metal finishing, petroleum refining, and printing. These six industries form a sizable piece of the American economy, comprising over 11% of U.S. Gross Domestic Product and employing nearly 4 million people. They also account for 12.4% of the toxic releases reported by American industry in 1992. The CSI stakeholder teams have begun meeting and are expected to deliver consensus recommendations for cleaner, cheaper, smarter environmental policies to the EPA Administrator within one year. The Administrator is committed to taking immediate steps to implement the recommendations.

A second and equally ambitious effort has been the creation of the **Office of Compliance (OC)** within the newly-formed Office of Enforcement and Compliance Assurance (OECA). The Office of Compliance develops and implements a host of tools -- not just traditional enforcement actions -- to promote compliance with environmental requirements. For example, OC is developing "compliance assistance centers" for four industry sectors: dry cleaning, metal finishing, small farms, and printing. These multi-media, sector-oriented centers will provide "one-stop shopping" -- a place where businesses can get comprehensive, easy-to-understand information on regulatory requirements and pollution prevention technologies. In addition, since OC is organized around commercial sectors (e.g. manufacturing, energy, transportation, and agriculture) rather than by individual environmental medium, the office will be able to take the industry sector perspective to ensure that EPA programs and requirements fit together, are understandable, and favor pollution prevention.

EPA is also participating in a number of other projects in an effort to develop a prevention-friendly environmental policy framework. The **Great Printers Project**, partly underwritten by EPA from its inception, is a partnership of the Environmental Defense Fund, the Council of Great Lakes Governors, and the Printing Industries of America. Its objectives are to make pollution prevention the primary choice of the Great Lakes states lithographic printing industry in meeting and exceeding its environmental and human health protection responsibilities, and to recast the approach to environmental policy by bringing together representatives from government, industry, labor, and environmental groups to focus on the common goals of environmental protection and economic strength. For more information about the Great Printers Project, call the Environmental Defense Fund at (202) 387-3500.

And finally, EPA Administrator Carol Browner is a co-chair of the **Eco-Efficiency Task Force** of the President's Council on Sustainable Development (PCSD). This group has launched several demonstration projects to identify and recommend public policies and private sector actions that will remove barriers and provide incentives for pollution prevention and product stewardship. To find out more about the Eco-Efficiency Task Force, call PCSD at (202) 408-5296.

About This Report

This report discusses EPA's progress in restructuring regulation, as well as the Agency's efforts to go beyond regulation to provide services and establish partnerships that advance pollution prevention. State environmental protection programs and other federal agencies are EPA's partners in this enterprise, and many of the activities highlighted in this report are the result of state initiatives and innovation, supported in some way by EPA. The report is structured to reflect the point of view of the key business decision-makers -- that is, the people inside the circle in the picture on page 4.

- Chapter III discusses the steps EPA is taking to help business people incorporate pollution prevention into their decisions about purchasing and using supplies and equipment. Most of EPA's current pollution prevention activities fall into this category. (B in the picture.)
- Chapter IV discusses the steps EPA is taking to create regulatory programs that encourage businesses to consider pollution prevention first in developing regulatory compliance strategies. (E in the picture.)
- Chapter V primarily discusses the steps EPA is taking to improve the "national scorecard" that businesses use to publicly display their progress in preventing pollution, the Toxics Release Inventory. (C in the picture.)

For More Information

For more information on the programs and activities described in this report, please call the contact listed at the end of each section. For information on other EPA pollution prevention activities, or for copies of this document, call the Pollution Prevention Information Clearinghouse at (202) 260-1023.

II.

1994 Pollution Prevention Highlights

In 1994, EPA ...

- ✓ **Supported 68 state and tribal organizations across the nation** with grants to initiate the development and implementation of pollution prevention efforts.
- ✓ **Worked in partnership with dry cleaners, screen printers, printed wiring board manufacturers, and aerospace equipment manufacturers** through the Design for the Environment (DfE) program to facilitate the development and use of cleaner alternative chemicals, processes, and technologies.
- ✓ **Promoted energy efficiency and pollution prevention through its "Green Programs."** 1,612 organizations have joined Green Lights, and more than 300 computer and monitor manufacturers, representing more than 80% of U.S. sales, have joined the Energy Star Computers program.
- ✓ **Encouraged water efficiency and pollution prevention through the WAVE program.** WAVE's charter members are expecting to reduce water usage by over 2.25 billion gallons per year, for an annual savings of nearly \$8.5 million in water, sewer, and energy costs.
- ✓ **Fostered the development of innovative pollution prevention technologies** in a wide range of industries through the President's Environmental Technology Initiative.
- ✓ **Developed draft guidance for the purchase of "environmentally preferable products" by the federal government,** drawing input from trade associations, individual companies, environmental organizations, the White House Office of Environmental Policy, the General Services Administration (GSA), and other stakeholders.

II. 1994 Pollution Prevention Highlights (continued)

- ✓ **Formed a partnership to design and implement environmentally-sound pesticide use practices.** The PEST SMART program involves EPA, USDA, FDA, six major agricultural groups, and 17 major utilities across the country.
- ✓ **Launched the WasteWiSe Program,** a voluntary effort to spur municipal solid waste reduction by large businesses. Preliminary reports indicate that WasteWiSe members are reducing waste at substantial cost savings. For example, in 1994 Target Stores eliminated 1.5 million pounds of packaging waste and saved \$4.5 million in initiating a packaging reduction program.
- ✓ **Worked in partnership with state and local governments, businesses, and citizens to reduce the generation of municipal solid waste.** One indication of the value of these programs is that a drop in per capita waste generation is predicted to take place by the year 2000.
- ✓ **Released the Waste Minimization National Plan,** which states national goals for the reduction of constituents in hazardous wastes, and identifies regulatory, non-regulatory, and organizational tools to accomplish these goals. The plan encourages all states and generators of hazardous waste containing persistent, bioaccumulative, and toxic constituents to define their own baseline years, set their own goals, and track their own progress toward meeting those goals.
- ✓ **Worked with states to incorporate pollution prevention principles in their regulatory programs.** EPA and states have worked in partnership to develop flexible approaches in using EPA media grant funds to support state pollution prevention programs and activities.
- ✓ **Incorporated pollution prevention into a number of proposed regulatory standards,** including rules for the pulp and paper industry, the pesticide formulating, packaging and repacking industry, and for the use of halogenated solvents.

II. 1994 Pollution Prevention Highlights (continued)

- ✓ **Laid the groundwork for a new approach to enforcement, one which promotes and supports pollution prevention.** EPA's new Office of Enforcement and Compliance Assurance (OECA) will maintain an imposing enforcement presence as a means of deterrence, but will also supplement traditional enforcement tools with compliance assistance and other innovative approaches.
- ✓ **Increased the public's ability to track progress in preventing toxic waste generation and releases,** by nearly doubling the number of toxic chemicals required to be reported under TRI, and by collecting for the first time toxic release data from federal agencies.
- ✓ **Launched the Environmental Justice through Pollution Prevention Grants Program,** which will provide financial assistance to poor and minority communities for identifying and implementing pollution prevention solutions for environmental problems in their neighborhoods.

* * * * *

III.

Using Supplies and Equipment that Prevent Pollution

"[R]egulations often do not reach the more complicated corporate decisions needed to evaluate design, manufacturing, packaging, distribution, and marketing practices to reduce pollution and energy consumption. We must encourage these efforts by entering into partnerships with public and private organizations where such cooperation can produce tangible environmental results."

- EPA Pollution Prevention Policy Statement

This chapter discusses the steps EPA is taking to help business people incorporate pollution prevention into their decisions about designing products and processes, purchasing and using supplies and equipment, and financing pollution prevention investments. Most of EPA's current pollution prevention activities fall into this category. Many of the pollution prevention accomplishments highlighted here are attributable to the success of EPA's voluntary programs, in which progressive businesses have joined with EPA, states and other stakeholders to set and achieve goals that go beyond compliance with existing regulatory programs. These voluntary programs will lay the groundwork for future efforts to improve environmental protection through pollution prevention. The activities highlighted here share two key characteristics: first, they are cooperative efforts involving a range of stakeholders; and second, they are all aimed at preventing pollution by helping facilities improve their products and processes. This section includes overviews of:

- Pollution Prevention Incentives for States
- Design for the Environment
- Green Lights
- Energy Star Computers
- Climate Wise
- Water Alliances for Voluntary Efficiency (WAVE)
- Environmental Technology Initiative
- Design and Demonstration of Innovative Pollution Prevention Options
- Environmentally Preferable Products
- PEST SMART Pesticide Environmental Stewardship Program
- WasteWiSe
- Reducing Municipal Solid Waste

Pollution Prevention Incentives for States Grants

Introduction

The Pollution Prevention Incentives for States (PPIS) grant program, established under the authority of the Pollution Prevention Act of 1990, provides funding to state and tribal organizations to support the development or implementation of pollution prevention programs. These programs, in turn, provide pollution prevention assistance to businesses and industries in the form of training and technical assistance, including waste assessments and facility planning. The goal of the PPIS grant program is to assist businesses and industries in identifying pollution prevention strategies and solutions for complying with federal and state environmental regulations.

Selected Accomplishments

- In 1994 EPA awarded approximately \$6 million in PPIS grants to 68 state and tribal organizations across the nation to support the development or implementation of pollution prevention efforts. Some sample activities are highlighted below:
 - By implementing recommendations from the Colorado Department of Health technical assistance program, Majestic Metals will reduce their VOC emissions by 7,400 pounds, reduce rinse water use by 770,000 gallons, and save \$25,000 per year.
 - The Missouri Department of Natural Resources and the Tennessee Valley Authority is implementing a demonstration project at a bulk fertilizer and pesticide dealership to identify areas where changes in business practices could substantially reduce or prevent solid and hazardous waste, waste water, storm water, and air emissions.
 - The Tennessee Waste Reduction Program (WRAP) has trained over 12,000 people in pollution prevention and waste reduction techniques.

Plans for the Future

- EPA will award approximately \$6 million in PPIS grants in fiscal year 1995, focusing especially on opportunities for cooperative efforts with other federal or state agencies, businesses, and trade associations.

Contact

- Lena Ferris, Pollution Prevention Division, (202) 260-2237.

Design for the Environment

Introduction

The Design for the Environment (DfE) program harnesses EPA's expertise and leadership to facilitate information exchange and research on pollution prevention efforts. DfE works with businesses, trade associations, and other stakeholders in specific industries to evaluate the risks, costs, and performance of alternative chemicals, processes, and technologies. In addition, DfE helps individual businesses apply specific tools and methods to undertake environmental design efforts. DfE creates voluntary and cooperative partnerships between EPA, industry, public interest groups, and other government entities to:

- Create standard methodologies for using risk information and provide access to that information;
- Develop customer-focused information products to convey risk reduction and pollution prevention options; and
- Provide incentives for industries to engage in risk reduction activities.

Selected Accomplishments

- The DfE Dry Cleaning Project released a number of information and outreach products that describe "multiprocess wet cleaning," an alternative to dry cleaning which uses biodegradable soaps, heat, steam, and pressing to clean clothes. This process was identified by an EPA-dry cleaning industry team as an alternative to perchloroethylene, the chemical solvent used by most dry cleaners.
- The DfE Screen Printing Project developed and released a draft "cleaner technologies substitutes assessment" (CTSA) on screen reclamation systems, using data from a month-long demonstration on alternative screen reclamation systems.
- In partnership with the printed wiring board (PWB) industry (a sector of the computer and electronics industries), EPA is evaluating alternative chemicals, processes, and technologies involved in PWB fabrication.
- DfE established partnerships with two sectors of the U.S. aerospace industry to identify alternative technologies to make the industry "leaner and cleaner." DfE is helping the defense sector identify ways to streamline aircraft design and assembly to reduce costs, enhance competitiveness, and prevent pollution. The program also is working with the small aircraft industry to evaluate less toxic technologies to strip paint from planes.

Design for the Environment (continued)

Plans for the Future

- The Dry Cleaning Project will demonstrate alternative cleaning technologies at three sites around the U.S. to educate and assist dry cleaners in the implementation of these new processes.
- EPA and the Screen Printing Association International (SPAI) will sponsor a resource conference for screen printers in April 1995, to highlight technologies used by printers to reduce risk and save money. DfE will also conduct a videoconference on Total Cost Accounting for screen printers to help them implement pollution prevention alternatives.
- The Printed Wiring Board Project and Lithography Printing Project begin their implementation phases.
- A new project, known as "the Green Chemistry Challenge," will promote pollution prevention and industrial ecology through a new DfE partnership with the chemical industry. EPA and the chemical industry will jointly sponsor national awards for companies that develop pollution prevention processes for chemical production and use. Major targets will be using renewable resources for chemical production, substituting solvents that do not contribute to air pollution, and designing new chemicals and chemical processes that are more safely made and that are safe for the environment.

Contact

- Joe Breen, Office of Pollution Prevention and Toxics, Design for the Environment Program, (202) 260-0686.

Environmental Accounting Project

The Environmental Accounting project is a collaborative effort between EPA and stakeholders in business, trade associations, and academia. The project's goal is to promote the adoption of environmentally sound management accounting and capital budgeting practices. Incorporating environmental costs into business decisions will allow pollution prevention and other environmental projects to compete for funds on equal footing with other, more traditional investments.

Selected Accomplishments

- As a follow up to a stakeholder meeting in December 1993 with participants from EPA, business, trade associations, and academia, EPA published the "Stakeholders Action Agenda" and the "Workshop Proceedings." The Action Agenda highlights steps that can be taken by each stakeholder group to increase the integration of environmental costs into management accounting and capital budgeting processes. The Agency also published a "Summary of Pollution Prevention Case Studies with Economic Data," which details cost savings in 200 pollution prevention case studies.
- Under a cooperative agreement with the Tellus Institute, EPA developed and distributed to federal, state, and local government agencies software that helps users conduct total cost assessments. "P2.FINANCE" is a spreadsheet package designed to guide the data collection and analysis essential to the financial evaluation of pollution prevention projects.

Plans for the Future

- In 1995 EPA will develop a resource guide on methods of environmental accounting. The guide will describe existing methods and evaluate them against a set of life cycle criteria, and provide access information for each tool. The Agency will also publish a guide to commercially-available project management software systems and evaluate the extent to which environmental information is incorporated into each system.
- EPA will publish an "Introduction to Environmental Accounting: Key Concepts and Terms" -- a document that will orient readers to environmental accounting by explaining key underlying concepts and clarifying common terms.
- EPA will also publish case studies on efforts by AT&T and Ontario Hydro to implement environmental accounting. These studies will include the resources utilized by these companies to conduct environmental accounting.

Contact

• Holly Elwood, Pollution Prevention Division, (202) 260-4362.

Green Lights

Introduction

Lighting accounts for 20-25% of the electricity used in the U.S. Energy-efficient lighting has the potential to cut lighting electricity use by 50-75%, reduce pollutants resulting from lighting electricity use by 50-75%, and free \$18.6 billion from rate-payer bills for investments elsewhere. EPA's Green Lights Program was the first voluntary, non-regulatory program designed to prevent pollution, promote public-private partnership, recognize environmental leadership, and improve participants' bottom-line energy costs by encouraging the use of energy-efficient lighting in buildings.

Selected Accomplishments

- 1,612 organizations have joined Green Lights as of November 1994, and are in the process of upgrading 4.3 billion square feet of commercial, manufacturing, retail, and government facilities to more energy-efficient lighting. **The average rate of return for investments in more energy efficient lighting is over 25%, and many organizations reduce their electricity bills by 40% or more while maintaining or improving lighting quality.**

Green Lights Results To Date:

- **1.2 billion pounds of carbon dioxide emissions prevented;**
- **8.7 million pounds of sulfur dioxide emissions prevented;**
- **4.1 million pounds of nitrous oxide emissions prevented.**

Plans for the Future

- EPA will continue to recruit participants for the Green Lights program. The Agency will use focused marketing plans to target hospitals, universities, large and medium-sized corporations, and small businesses, collectively representing an additional 2 billion square feet of space.

Contact

- Maria Tikoff, Green Lights Program, (202) 233-9178.

Energy Star Computers

Introduction

Office equipment is the fastest growing source of electrical load in the commercial sector. Energy consumption by office equipment represents 5% of commercial energy sector use, and in the absence of change, is forecasted to reach 10% by the year 2000. Research shows that much of this electricity, however, is wasted: most office equipment is only in use a small portion of the time it is left on, and **between 25-40% of computers are needlessly left on each night**. A significant portion of shared computers and printers are left on each night since no one individual has responsibility for turning them off. Energy Star Computers represent an expansion of the concept implemented so successfully by Green Lights: that using more energy-efficient equipment in homes and offices can help reduce greenhouse gas emissions and save companies money. "Energy Star" computers and printers power down to save energy when they are not being used. This "sleep" feature can cut a product's electricity use by over half.

Selected Accomplishments

- By August 1994, more than 300 computer and monitor manufacturers, representing more than 80% of U.S. sales, had joined the program and are producing Energy Star PC systems. Over 40% of all computers sold in the U.S. in the first year of the program (July 1993-June 1994) were Energy Star. **An average Energy Star computer uses 50% less energy than a non-Energy Star system**, for a potential electricity cost savings of \$30 per year per computer.
- More than 45 printer manufacturers, representing more than 90% of U.S. sales, are producing Energy Star printers. Over 85% of printers sold in the U.S. in the first year of the program were Energy Star. **An average Energy Star printer also uses 50% less energy**, for a potential cost savings of \$40 per year per printer.

Plans for the Future

- EPA will work with large corporations and organizations across the U.S. to establish Energy Star purchasing policies, implement a retail initiative to promote Energy Star products to consumers, and look for opportunities to expand Energy Star shipments across the world to meet international demand. EPA has recently expanded the program to include copiers and fax machines.

Contact

- Andrew Fanara, Energy Star Computers, (202) 233-9019.

Climate Wise

Introduction

Climate Wise is a joint EPA/Department of Energy (DOE) voluntary program that stimulates comprehensive industrial actions to enhance energy efficiency, prevent pollution, reduce greenhouse gases, and increase profits. Climate Wise recognizes industry's actions and provides information and assistance on a range of emissions-reducing opportunities. Many companies are already reducing emissions through programs aimed at improving efficiency and reducing energy costs. Climate Wise will help companies build on current efforts by providing selected technical assistance and by recognizing cumulative corporate-wide reductions. Companies are also encouraged to adopt creative, organization-specific measures that limit or reduce emissions, such as:

- Altering production processes
- Switching to lower-carbon-content fuels and renewable energy supplies
- Substituting raw materials
- Implementing employee mass transit or car pool programs
- Auditing and tracking energy use for efficiency improvements

Thus, Climate Wise will help companies identify and implement a comprehensive set of measures tailored to their specific needs.

Selected Accomplishments

- Eight Climate Wise companies, representing more than 3% of U.S. industrial energy use, committed to actions which will reduce greenhouse gas emissions by more than 20 million metric tons by the year 2000.
- Program participants expect to realize total annual savings of more than \$80 million by the year 2000.

Plans for the Future

- EPA and DOE will conduct 10 workshops across the country to encourage participation in the Climate Wise program, and to provide information on auditing, reporting, and financing options.

Contacts

- Pam Herman, EPA Climate Wise Program, (202) 260-4407
- Gerry Kotas, DOE (303) 275-4714; Marcia Quinn, DOE (202) 586-2097

Water Alliances for Voluntary Efficiency (WAVE)

Introduction

WAVE -- Water Alliances for Voluntary Efficiency -- is a non-regulatory water-efficiency partnership. WAVE's mission is to encourage commercial businesses and institutions to reduce water consumption while increasing efficiency, profitability, and competitiveness. The initial target of the WAVE program is the lodging industry. The program is part of EPA's long-term effort to prevent pollution and reduce demands on the nation's water and energy infrastructure. As supplies shrink and demands rise, competition for available water resources among industrial, agricultural and domestic users is increasing. Through WAVE and other programs, EPA seeks to ensure that adequate U.S. water resources remain available to support both human and environmental needs.

Selected Accomplishments

- Five companies in the lodging industry signed up to be WAVE's first official partners: Hyatt Corporation, ITT Sheraton, Outrigger Hotels, Saunders Hotel Group, and Westin Hotels & Resorts. These partners represent 432 U.S. hotel properties and over 166,000 guest rooms. WAVE is also supported by a number of water service companies and equipment suppliers and manufacturers, and is endorsed by the American Hotel and Motel Association.
- WAVE's charter members are estimating significant savings as the result of a variety of efficiency measures, including upgrades to bathroom fixtures, kitchen and laundry facilities, cooling towers, and outdoor irrigation. WAVE members are expecting to reduce water usage by over 2.25 billion gallons per year, for an annual savings of nearly \$8.5 million in water, sewer, and energy costs.

Plans for the Future

- WAVE plans to expand next to commercial office buildings, and eventually to schools and universities, hospitals, restaurants, other commercial businesses, and multi-family housing.

Contact

- John Flowers, WAVE Program, (202) 260-7288.

Environmental Technology Initiative

Introduction

"The President's Environmental Technology Initiative (ETI) was announced by President Clinton in his State of the Union address on February 17, 1993. ETI is rooted in the President's commitment to the proposition that economic development and environmental protection go hand in hand. ETI's goal is to spur the development and use of innovative environmental technologies to protect the environment and enhance the competitiveness of the U.S. environmental technology industry. By promoting the development and use of environmental technologies, we can both strengthen our economy and improve environmental quality at home and abroad.

"EPA, federal agencies, states, and tribes are in a unique position to support environmental technology innovation because our legislative authorities and environmental management responsibilities often drive demand for environmental technologies, goods, and services. Working together through ETI, we can create a regulatory atmosphere that nurtures innovation, creates jobs, and protects the environment."

- EPA Administrator Carol M. Browner,
in a letter introducing the FY 1995
ETI Program Solicitation Package

Selected Accomplishments

- **Small Business Pollution Prevention Support.** The Small Business Administration's (SBA) national network of Small Business Development Centers provides pollution prevention developmental assistance to four states (Iowa, Texas, Wisconsin, and Virginia). This was made possible by an ETI cooperative agreement between EPA's Office of Research & Development and the SBA.
- **Mutual Effort to Reduce Industrial Toxics (MERIT).** EPA Region IX, the National Institute of Standards and Technology (NIST), the Metal Finishing Association of Southern California, and several defense aerospace contractors cooperated to facilitate pollution prevention technology transfer from large to small businesses and diffuse technology throughout the California metal finishing industry.

Environmental Technology Initiative (continued)

Selected Accomplishments (continued)

- **Technology Access Program for Small and Medium Sized Manufacturers.** EPA and the National Institute for Standards and Technology (NIST) initiated a joint energy, environmental and manufacturing technology access program for small and medium sized manufacturers. The purpose of this multi-faceted program is to enable smaller manufacturers to implement technologies and techniques which allow them to be environmentally competitive.
- **Metal Plating and Finishing Industry.** EPA provided research support for eight separate projects directed toward a single small-business-dominated industrial sector - the metal plating and finishing industry. This industry consists of approximately 80,000 facilities, more than 70% of which employ fewer than 50 people. The industry has substantial waste water, solid waste and air emission problems. EPA provided support to this industry in an effort to improve the industry's competitiveness and efficiency, and to increase its ability to comply with environmental requirements while containing compliance costs.

"Public-private partnerships (like ETI) to develop pollution prevention technologies will increase profits and enhance the competitiveness of small businesses like mine."

- David Marsh, President, Marsh Plating Corporation, Ypsilanti, MI, and President of the National Association of Metal Finishers

Plans for the Future

- EPA will continue to promote the development and diffusion of new pollution prevention technologies, focusing particularly on the six industry sectors involved in the Common Sense Initiative.

Contact

- Greg Ondich, Office of Research and Development, (202) 260-5747.

Design and Demonstration of Innovative Pollution Prevention Options

Introduction

Since 1987 EPA's Office of Research and Development has supported pollution prevention research programs at the Risk Reduction Engineering Laboratory in Cincinnati, Ohio, and the Air and Energy Engineering Research Laboratory in Research Triangle Park, North Carolina. These programs are major contributors to the nation's efforts to encourage the design and demonstration of innovative pollution prevention options. In addition to providing technical support to many Agency program office activities related to pollution prevention, ORD participates in a wide variety of cooperative projects with organizations in industry and academia to advance the general state of the art of pollution prevention strategies, techniques, and technologies. EPA's goals in these programs are:

- To determine how consumer and industrial products and services can be designed, manufactured, and used for minimal effects on the environment;
- To facilitate the development and use of cleaner production processes that lead to reduction of pollution in all environmental media;
- To provide technical data to support the integration of pollution prevention considerations into the Agency's regulatory actions to reduce pollution;
- To provide industry with environmentally friendly options for managing environmental risk; and
- To provide assistance and guidance to small businesses to encourage the adoption of strategies and techniques that result in reduced pollution.

Selected Accomplishments

- Produced pollution prevention guidance manuals for specific industries and operations, including the electroplating and alternative metal finishing industries. To date 40 such reports have been distributed.
- Expanded support of clean technology evaluations and demonstrations to include projects in ten major industries, covering a wide variety of manufacturing groups such as aluminum and steel products, engine parts, tool manufacturing, and paints and laquers.
- Carried out on-site assessments at military bases and other federal facilities to encourage integration of pollution prevention into all Government activities.

Design and Demonstration of Innovative Pollution Prevention Options (continued)

- Completed a prototype program for assisting in the selection of less polluting solvents in the printing industries.
- Developed an algorithm for reducing wastes in the chemical industry.
- Supported the Agency's Source Reduction Review Project by identifying and exploring pollution prevention alternatives in the pharmaceutical, pulp and paper, and pesticides formulation, reinforced plastics, adhesives, and printing industries.
- Performed a joint evaluation with the Navy to substitute CFC-114 with a replacement refrigerant for retrofit of Navy ships with a potential savings of up to \$500 million.
- Produced a fiber based alternative for particleboard that offers the potential of a structurally superior building material with zero vapor phase organic chemical emissions.
- Continued the development of electronic devices to enhance the energy efficiency of electric motors for industrial and automotive applications.
- Developed and demonstrated a zero VOC furniture coating system and an ultra low VOC coating for furniture products.
- Produced a "Solvents Alternative Guide" to assist industries interested in voluntarily replacing 17 of the most toxic solvents addressed by the 33/50 Program.

Plans for the Future

- The Agency will continue broad based research and demonstration activities to encourage the adoption of pollution prevention strategies and technologies in various industries and to encourage the development and adoption of innovative approaches to implementing pollution prevention in all sectors of society.

Contacts

Harry Freeman, Risk Reduction Engineering Laboratory, (513) 569-7529.
Doug McKinney, Air and Energy Engineering Research Laboratory, (919) 541-3006.

Environmentally Preferable Products

Introduction

In October 1993 President Clinton signed Executive Order 12873, entitled "Federal Acquisition, Recycling, and Waste Prevention." This Order requires EPA to "issue guidance that recommends principles that Executive Agencies should use in making determinations for the preference and purchase of environmentally preferable products" and services. The primary goal of this provision of the Executive Order is to bring to bear the enormous purchasing power of the federal government -- in excess of \$200 billion per year -- to promote a strong market for "green" products.

Selected Accomplishments

- EPA developed draft guidance for the purchase of "environmentally preferable products" by the federal government, drawing input from trade associations, individual companies, environmental organizations, the White House Office of Environmental Policy, the General Services Administration (GSA), and other stakeholders.
- The Agency launched two pilot projects to test the principles outlined in the draft guidance. The EPA/GSA Cleaning Products Pilot will gather information that will allow purchasers to analyze the performance, cost, and environmental impact of various cleaning products. In addition, the EPA/GSA Computer Pilot will further promote the purchase of environmentally preferable computers ("Energy Star" computers).

Plans for the Future

- The primary goal in 1995 is to turn the draft guidance into a program that will assist federal agencies in selecting and purchasing environmentally preferable products. The Agency will reach this goal by continuing the pilot projects described above and by providing training and education for the federal acquisition community.

Contact

- Eun-Sook Goidel, Pollution Prevention Division, (202) 260-3296.

PEST SMART Pesticide Environmental Stewardship Program

Introduction

The Pesticide Environmental Stewardship Program is the result of a commitment made by EPA, the U.S. Department of Agriculture (USDA), and the Food and Drug Administration (FDA) to the U.S. House of Representatives to work jointly with pesticide user groups to reduce the use and risks of pesticides in the U.S.

Selected Accomplishments

- On December 12, 1994, EPA, USDA, and FDA announced the formation of a partnership between six major agricultural groups (National Potato Council, American Corn Growers Association, International Apple Institute, California Citrus Research Board, California Pear Growers, California Pear Advisory Board) and 17 major utilities across the country to design and implement environmentally-sound pesticide use practices.

Pesticide Environmental Stewardship Program Guiding Principles

Pesticide users will work to reduce risk to humans and the environment, minimize the use of pesticides where desirable and practical, and develop regional environmental stewardship plans with specific pest management strategies.

The *federal government* will foster, fund, and promote the development of alternative pest management technologies, and integrate environmental stewardship plans into agricultural and environmental policies and programs.

- The partners developed a set of guiding principles to direct their efforts (box).

Plans for the Future

- EPA and its partners will establish the Pesticide Environmental Stewardship Recognition Program, add "Supporters" and more partners to the program, and assign EPA liaisons to each of the partners in the program.

Contact

- Janet Andersen, Biopesticides and Pollution Prevention Division, (703)308-8128.

WasteWiSe

Introduction

In 1994 EPA successfully launched the WasteWiSe program, a voluntary effort to spur municipal solid waste reduction by large businesses. Under the program, participating organizations commit to: conduct three waste prevention actions, increase or improve their collection of recyclable materials, and increase the purchase or manufacture of recycled products.

WasteWiSe was inaugurated in July 1994 by EPA Administrator Carol Browner, with 281 charter members. After the initial kickoff, the program expanded to include 369 participating companies. EPA also launched the WasteWiSe Endorser program with an invitation in mid-December to key trade associations. WasteWiSe Endorsers commit to conduct a campaign to sign their business members on to WasteWiSe, and then to provide some level of ongoing information on WasteWiSe or waste reduction strategies. EPA expects that Endorser activities will greatly expand WasteWiSe membership in 1995.

Selected Accomplishments

- Of the 369 initial WasteWiSe members, 142 are Fortune 1000 companies. WasteWiSe members cover a wide range of industrial sectors (including all of the CSI sectors) and geographic range (all EPA regions).
- Preliminary reports to 1994 achievements indicate that WasteWiSe members are reducing, reusing, and recycling millions of pounds of materials (e.g., paper, corrugated, plastic, glass, metal, and wood) with substantial associated cost savings. For example, in 1994 Target Stores eliminated 1.5 million pounds of packaging waste and saved \$4.5 million in initiating a packaging reduction program. The final data from WasteWiSe's first year will be available later in 1995.

Plans for the Future

- Continued expansion of WasteWiSe membership, with an emphasis on large companies.
- Increasing the technical assistance available to WasteWiSe partners, including on-site waste assessments, workshops, in-depth case studies on how WasteWiSe companies have successfully reduced waste, assistance on measuring amounts of waste prevented, and an increase in the number of peer exchanges between companies.

Contact

- Lynda Wynn, Office of Solid Waste, (703) 308-7273.

Reducing Municipal Solid Waste

Introduction

Perhaps no other environmental issue is consistently as tangible and apparent to a citizen as municipal solid waste (MSW), the garbage we all generate daily in our homes, offices, schools, and retail stores. In 1993, 207 million tons, or 4.4 pounds per person per day, of MSW were generated, according to EPA's latest estimates.

The municipal solid waste hierarchy provides a three-tiered priority framework of source reduction, recycling, and combustion or landfill to consider when making decisions on MSW generation and management. Under the rubric of the MSW hierarchy, EPA's voluntary programs strive to show the environmental and economic benefits of upstream materials management practices, such as source reduction, reuse, and recycling. Through outreach documents, workshops, and key initiatives, the MSW program reaches thousands of companies, communities, and individuals each year.

Selected Accomplishments

- EPA's programs -- with major contributions from state and local governments, business and citizens -- have helped slow the rate of waste generation so that an actual drop in per capita waste generation is predicted to take place by the year 2000.
- In 1994 EPA distributed over 10,000 disk copies of the "MSW Factbook," an interactive computer software program to educate state and local solid waste officials on MSW composition and management practices. The program was also made available to the public through on-line computer services and the internet.
- In 1994 EPA's unit pricing outreach program educated 700 state and local MSW planners and managers through workshops and conferences and distributed over 6,000 guidebooks on unit pricing -- a system under which residents pay for the amount of waste they generate rather than through general tax revenues.

Plans for the Future

- Increased emphasis, through pilot programs, case studies, and workshops, on quantifying and communicating the technical potential and economic and environmental benefits of source reduction.

Contact

- RCRA Hotline, 1-800-424-9346.

IV.

Incorporating Pollution Prevention into Regulatory and Compliance Activities

"Our first obligation at EPA is to fulfill the statutory responsibilities we have been given by Congress. That generally means developing environmental standards through regulation, and ensuring compliance through a system of permits, inspections, and enforcement actions. [S]trong environmental requirements, if designed to encourage cost-effective compliance strategies from industry, can promote pollution prevention and improve the competitiveness of American industry."

- EPA Pollution Prevention Policy Statement

EPA's system of developing regulations and ensuring compliance has an enormous effect on industry's ability to meet environmental standards using the cleanest, cheapest pollution prevention approach. This section highlights the steps EPA is taking to create regulatory and compliance programs that encourage businesses to consider pollution prevention in developing regulatory and compliance activities.

- **Pollution Prevention in State Regulatory Programs**
- **Pollution Prevention in EPA Rules**
- **Pollution Prevention in Enforcement and Compliance**
- **Waste Minimization National Plan**

Pollution Prevention in State Regulatory Programs

Introduction

EPA first recognized its responsibility to give states the flexibility in setting their environmental priorities by encouraging them to incorporate pollution prevention principles in their EPA media grant funded activities. In 1993 Executive Order 12875 ("Enhancing the Intergovernmental Partnership") furthered the issue of state flexibility by requiring federal agencies to "consider any application by a state, local or tribal government for a waiver of statutory or regulatory requirements...with a general view toward utilizing flexible policy at the state, local and tribal levels...."

Selected Accomplishments

- The Commonwealth of Massachusetts and EPA Region 1 agreed to allow the Massachusetts Waste Prevention Program flexibility to incorporate multi-media, pollution prevention oriented inspection goals into the Commonwealth's federal grant obligations.
- The State of Alaska and EPA Region 10 agreed to direct 3% of eligible federal and state grant match dollars to support pollution prevention technical assistance.
- The State of New York and EPA Region 2 incorporated multi-media pollution prevention program priorities in Clean Air Act Section 105, Clean Water Act Section 106, and RCRA Subtitle C grant programs.
- The State of Maine and EPA Region 1 agreed to use Clean Water Act grants to focus pollution prevention activities on a single geographic area using a multi-media approach the addresses both RCRA and Clean Air Act concerns.
- The State of Ohio has utilized RCRA grant funds from the Great Lakes Initiative to support the state Office of Pollution Prevention.

Future Plans

- EPA will work to give states greater flexibility in determining their environmental priorities, and will continue to provide information and examples of successful pollution prevention activities and strategies.

Contact

- Tom McCully, Pollution Prevention Policy Staff, (202) 260-8617.

Pollution Prevention in EPA Rules

Introduction

The Pollution Prevention Act of 1990 requires EPA to "review regulations ... prior and subsequent to their proposal to determine their effect on source reduction." In response to this requirement, EPA initiated the Source Reduction Review Project (SRRP) in 1992 to evaluate pollution prevention alternatives during the regulatory development process. SRRP allows EPA to focus its review on key regulations mandated by statute under the Clean Air Act (CAA), Clean Water Act (CWA), and the Resource Conservation and Recovery Act (RCRA).

Selected Accomplishments

- EPA proposed a regulatory standard that will dramatically reduce and prevent air and water discharges of dioxin and other toxic pollutants by U.S. pulp and paper manufacturing mills. The combined "Pulp and Paper NESHAP (National Emission Standard for Hazardous Air Pollutants) and Effluent Guideline" marks the first time the Agency has combined air and water requirements into the same regulation. The rule is due to be finalized in the Fall of 1995.
- The Agency also proposed a regulatory standard aimed at reducing pollutant discharges to water by the pesticide formulating, packaging and repacking industry. This rule, which will affect approximately 2,600 facilities, identifies approaches that facilities can use to significantly reduce discharges to water with minimal "pollutant shifting" to air and land. The final rule is due in the Fall of 1995.
- EPA proposed a rule designed to reduce the use of halogenated solvents, thereby preventing pollution due to solvent emissions. Many industries use halogenated solvent cleaning machines for degreasing, including furniture and fixtures, fabricated metal products, electric and electronic equipment, and transportation equipment.

Plans for the Future

- EPA will incorporate pollution prevention into upcoming rules for the metal products and machinery industry, the pharmaceutical industry, and the wood furniture manufacturing industry.

Pollution Prevention in EPA Rules (continued)

Plans for the Future (continued)

- In July 1994 EPA created the Permits Improvement Team (PIT) to implement recommendations on how to improve the permitting process which were identified in the Agency's 1993 National Performance Review (NPR). The PIT will focus on administrative streamlining; alternatives to individual permits; enhancing public participation in the permitting process; incorporating other incentives for pollution prevention into permits; training and identifying performance measures.

Contact

- Kathy Davey, Pollution Prevention Division, (202) 260-2290.

Pollution Prevention in Enforcement and Compliance

Introduction

EPA completed the reorganization of its enforcement programs in 1994 by creating the Office of Enforcement and Compliance Assurance (OECA). The reorganization consolidates the Agency's enforcement programs under one roof. More importantly, the reorganization provides the basis for a new approach to enforcement, one which promotes and supports pollution prevention. This new approach will allow EPA to:

- Maintain an imposing enforcement presence as a means of deterrence, but also view traditional enforcement as one of a number of tools for achieving the broader goal of compliance;
- Supplement traditional enforcement tools with compliance assistance and other innovative approaches to compliance;
- Pursue whole-facility, multi-media strategies whenever feasible; and
- Organize national compliance strategies around sectors of the economy, ecosystems, and other entities in order to best reflect actual manifestations of environmental problems.

Selected Accomplishments

- OECA incorporated pollution prevention into enforcement settlements through the use of Supplemental Environmental Projects (SEPs). Data on pollution prevention SEPs in 1994 was being compiled by OECA as of the publication of this report. In fiscal year 1993, the office finalized 40 pollution prevention SEPs (out of an overall total of 293) which totalled approximately \$30 million.
- The Federal Facilities Enforcement Office (FFEO) published the "Federal Facility Pollution Prevention Planning Guide," to help Federal facility environmental coordinators strengthen their environmental programs using pollution prevention approaches and comply with the pollution prevention planning requirements in Executive Order 12856.
- FFEO also conducted over 30 multi-media inspections at federal facilities. FFEO targeted facilities that had environmental compliance problems which could be addressed using pollution prevention, and whose processes lent themselves to pollution prevention solutions that could be used as prototypes for other federal facilities.

Pollution Prevention in Enforcement and Compliance (continued)

Plans for the Future

- EPA recently announced its Environmental Leadership Program (ELP) designed to recognize and reward those willing to develop and implement innovative approaches to maintaining compliance with environmental regulations. In the Spring of 1995 EPA will announce 12 pilot projects at industrial facilities and federal installations that have volunteered to utilize elements of the ELP, including prevention-oriented measures such as installation of sophisticated environmental management systems to prevent violations and assure continuous environmental improvements, and whole-facility inspections for specific industries to assure compliance across environmental media. In exchange, EPA will publicly recognize the efforts of these environmental leaders and grant them a limited grace period to correct certain civil violations discovered during these pilot projects.

Contacts

- Lynn Vendinello, Office of Enforcement and Compliance Assurance, (202) 260-2842.
- Tai-ming Chang, Environmental Leadership Program, (202) 564-5081.

Waste Minimization National Plan

Introduction

Pollution prevention played a large role in the development of the final Hazardous Waste Minimization National Plan. In this Plan, EPA reinforces the strong preference for source reduction over waste management in order to reduce both the long-term demand for treatment, storage, and disposal capacity and the quantities of persistent, bioaccumulative, and toxic hazardous waste constituents that need to be managed. The plan emphasizes voluntary waste minimization measures and provides the public with a greater opportunity to be aware of waste minimization activities in their communities.

Selected Accomplishments

- EPA released the final **Waste Minimization National Plan** in November, 1994, which states national goals for the reduction of constituents in hazardous wastes, and identifies regulatory, non-regulatory, and organizational tools to accomplish these goals. The plan encourages all states and generators of hazardous waste containing persistent, bioaccumulative, and toxic constituents to define their own baseline years, set their own goals, and track their own progress toward meeting those goals. The plan was based on 18 months of discussions with stakeholders including industry, environmental groups, states, and EPA Regions.

Goals of the Waste Minimization National Plan:

- To reduce, as a nation, the presence of the most persistent, bioaccumulative, and toxic constituents by 25% by the year 2000 and by 50% by 2005;
 - To avoid transferring these constituents across environmental media;
 - To ensure that these constituents are reduced at their source whenever possible, or when not possible, that they are recycled in an environmentally sound manner.
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Plans for the Future

- The Office of Solid Waste will continue to work with states and industry to implement the goals of the Plan, and to integrate these goals into other pollution prevention efforts.

Contact

- Donna Perla, Office of Solid Waste, (703) 308-8438.

V.

Communicating Pollution Prevention Progress to the Community

"Since pollution prevention is motivated in part by public information, one of EPA's most important tasks is to collect and disseminate user-friendly data that measures progress in reducing waste at its source. [EPA] will make this information ... accessible and understandable to the states and local communities that depend on timely and accurate data."

- EPA Pollution Prevention Policy Statement

Public information and the right-to-know is a guiding principle of many Agency activities. This section reviews the steps EPA is taking to improve the "national scorecard" that businesses use to publicly display their progress in preventing pollution, the Toxics Release Inventory. Also, this section discusses the Agency's Environmental Justice Grants, which are designed to empower communities to learn more about pollution prevention solutions to environmental problems in their neighborhoods.

- The Toxic Release Inventory (TRI)
- Environmental Justice through Pollution Prevention

The Toxic Release Inventory (TRI)

Introduction

The Toxics Release Inventory (TRI) creates a "national Scorecard" which manufacturers can use to display their progress in preventing pollution. Section 313 of the 1986 Emergency Planning and Community Right-to-Know Act (EPCRA) and section 6607 of the Pollution Prevention Act of 1990 (PPA) require certain manufacturers to report to EPA annually the quantities of toxic chemicals they release to the environment and the amounts of waste managed on-site or transferred off-site for management elsewhere. EPA compiles this information and makes it available to the public annually as the TRI. The overall goal of the TRI program is to enhance the public's ability to monitor industry's releases and transfers of toxic chemicals that may affect human health and the environment. TRI also serves as a pollution prevention scorecard, by tracking toxic chemicals in wastes managed through recycling, energy recovery, treatment and disposal, and collecting data on various source reduction practices. Finally, by putting information about management and releases of toxic chemicals on public display, TRI raises industry awareness and creates a strong incentive for companies to reduce these wastes.

Selected Accomplishments

- Of the 23,321 facilities that reported to TRI for 1993, 8,135 implemented source reduction activities (approximately 35%). For the 1992 reporting year, approximately 36% of facilities reported source reduction activities (8,584 out of 24,091)
- EPA nearly doubled the number of toxic chemicals required to be reported under TRI, giving the public a more accurate picture of progress in preventing toxic waste generation and release.
- Under the direction of Executive Order 12856 ("Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements"), EPA began to collect for the first time toxic release data from federal agencies. Data from the Department of Energy, the first federal agency to institute TRI reporting, will be released in the Spring of 1995.

Plans for the Future

- EPA will move forward to expand the industries included under TRI. EPA's efforts will focus on sectors that have significant releases of TRI chemicals and are engaged in activities directly related to the support of manufacturing activities currently covered under TRI.

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- EPA's is working with stakeholders to formulate the design of the "next generation" of the voluntary 33/50 Program, in which over 1,300 companies committed to reducing releases and transfers of 17 high-priority toxic chemicals by 33% in 1992 and 50% in 1995, as measured against a 1988 TRI baseline. In the next generation of 33/50, the Agency is working with industry to include information on the extent to which source reduction and other pollution prevention practices are responsible for documented release reductions.
 - EPA is actively considering expanding 33/50's public recognition to move beyond certificates acknowledging participation and achievement of emissions reductions to awards recognizing outstanding voluntary pollution prevention activities.

Contacts

- Maria Doa, TRI Branch, (202) 260-9592.
- Chris Tirpak, 33/50 Program, (202) 260-7538.

Environmental Justice through Pollution Prevention

Introduction

The Environmental Justice through Pollution Prevention Grants Program is designed to provide financial assistance to poor and minority communities for identifying and implementing pollution prevention solutions for environmental problems in their neighborhoods.

Selected Accomplishments

- The Environmental Justice through Pollution Prevention Grants Program was funded at \$4.2 million in October 1994. The Agency has distributed over 4,000 grant application guidance packages to community organizations around the country.

Plans for the Future

- EPA's Pollution Prevention Division will work in partnership with EPA Regions to review grant applications. Each of the 10 EPA Regional offices will distribute roughly \$400,000 in grant funding to local communities.

Contact

- **Chen Wen, Pollution Prevention Division, (202) 260-4109.**

Focus on Environmental Justice

Background

A 1992 EPA report, "Environmental Equity: Reducing Risks in All Communities," found that there are clear differences between racial groups in terms of disease and death rates, that minority and low-income populations experience higher-than-average exposures to selected air pollutants, hazardous waste, contaminated fish, and pesticides in the workplace, and that there is a general lack of data on environmental health effects by race and income.

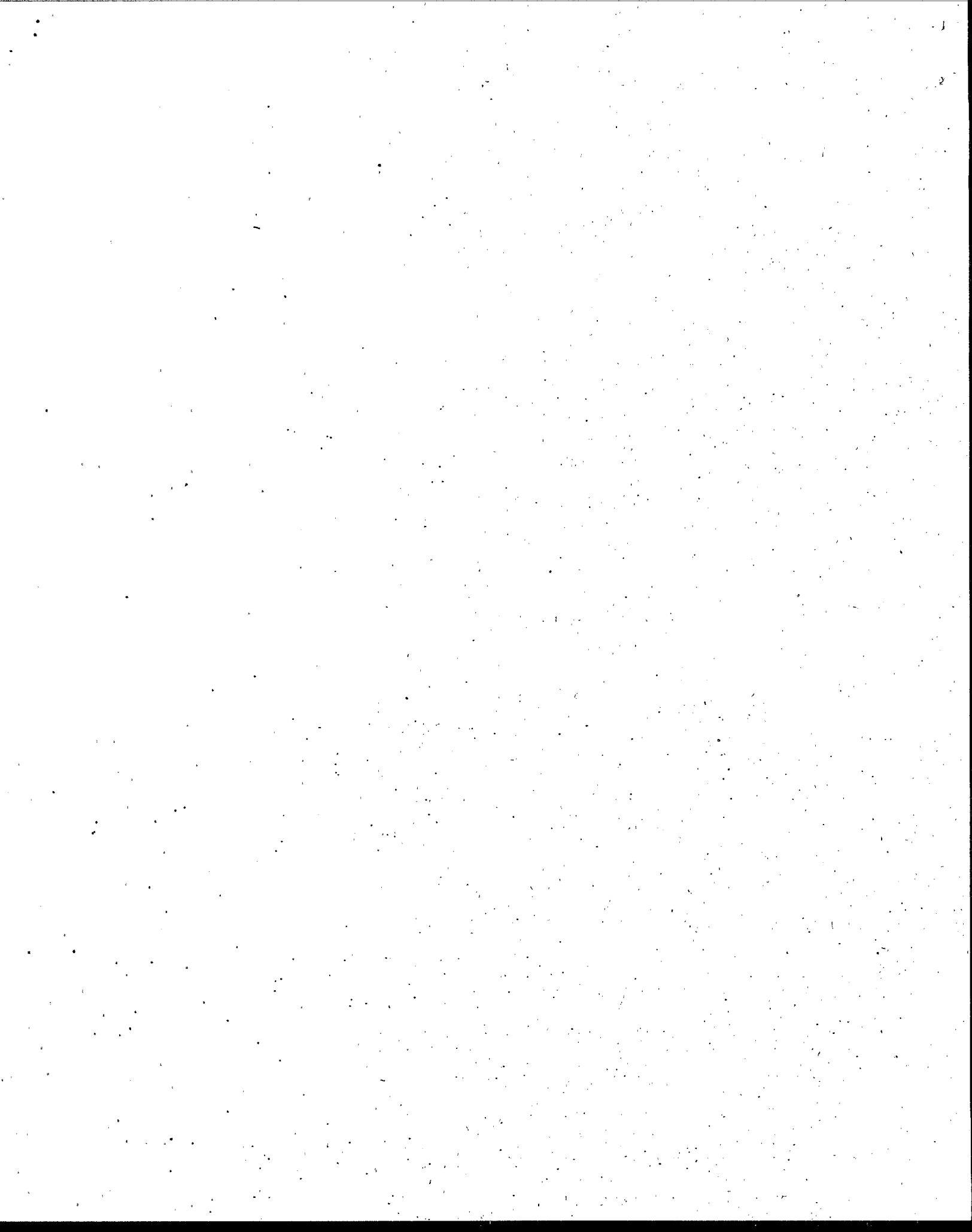
EPA Actions

In order to ensure that no segment of the population, regardless of race, color, national origin, or income, suffers disproportionately from adverse human health or environmental effects, and to provide opportunities for public participation in environmental decisions, EPA is taking action to integrate environmental justice into all Agency activities, including:

- Health and Environmental Research,
- Data Collection, Analysis, and Public Access to Information,
- Enforcement and Compliance Assurance,
- Partnerships and Outreach, and
- Native American, Indigenous, and Tribal Programs.

For Further Information

Call the EPA Office of Environmental Justice at 1-800-962-6357.





"The Congress hereby declares it to be the national policy of the United States that pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner."

-Pollution Prevention Act of 1990
42 USC 13101

