



United States
General Accounting Office
Washington, D.C. 20548

160347

Resources, Community, and
Economic Development Division

B-279755

April 23, 1998

The Honorable Christopher S. Bond
Chairman, Subcommittee on VA, HUD,
and Independent Agencies
Committee on Appropriations
United States Senate

Subject: Environmental Protection: Key Management Issues Facing EPA

Dear Mr. Chairman:

Many improvements have been made to the environment since the Environmental Protection Agency (EPA) was founded in 1970. Among other improvements, some of our most serious air and water quality problems have been alleviated, dangerous pesticides have been banned, and health threats posed by lead in gasoline and paint have been reduced. However, many problems remain, and EPA's leadership notes that future environmental challenges will be more complicated than those of the past. On March 27, 1998, your office requested that we provide our views on key management issues currently facing EPA.

Over the years, our work has identified a number of key issues facing EPA in its efforts to effectively and economically manage the nation's environment. Our recent work, including our evaluation of EPA's strategic and annual performance planning under the Government Performance and Results Act (GPRA), shows that many of these issues remain. The key issues involve EPA's (1) interrelated agencywide management responsibilities for setting priorities, obtaining reliable information, and ensuring the quality of its scientific and technical products; (2) initiatives to provide new approaches to environmental regulation; (3) relationships with states and other environmental stakeholders; and (4) programs for cleaning up hazardous waste sites. Our views on these key issues, which are drawn from our reports issued from 1996 through March 1998, are summarized below and discussed in more detail in the enclosure.

GAO/RCED-98-153R Key Management Issues Facing EPA

160347

INTERRELATED AGENCYWIDE MANAGEMENT
RESPONSIBILITIES

If EPA is to carry out its responsibilities effectively, it needs to improve its performance in establishing priorities that better reflect the risks to human health and the environment and that compare risks and risk-reduction strategies across programs and pollution problems. To determine the progress it is making in addressing these priorities, EPA also needs to obtain more reliable environmental information. EPA has worked to develop such information and, in 1997, established the Center for Environmental Information and Statistics within the agency. Nonetheless, many gaps still exist in its data, and the agency's disparate information systems have not yet been integrated.

Furthermore, before EPA's environmental and scientific information is published, it is essential that the information is reviewed by independent experts. However, in 1996 we found that EPA's peer review policy was implemented unevenly throughout the agency and that, in some cases, peer review was not performed at all. Since then, EPA has taken some corrective actions, but all staff have not yet been trained to ensure consistent implementation of the agency's peer review policy.

ENVIRONMENTAL REGULATION INITIATIVES

Among the agency's management initiatives that we have recently reviewed are efforts to "reinvent" environmental regulation and to make greater use of nonregulatory approaches to control pollution. In a March 1996 report on its progress in reinventing environmental protection, EPA announced that it was undertaking a number of initiatives to "apply common sense, flexibility, and creativity in an effort to move beyond the one-size-fits-all system of the past and achieve the very best protection of public health and the environment at the least cost." While EPA has made progress, it faces substantial challenges. For example, key stakeholders have expressed concern over the number of complex initiatives, and EPA has experienced difficulty achieving "buy-in" among the agency's rank and file, who have grown accustomed to other approaches. In addition, prescriptive environmental laws impose requirements that reinforce the existing regulatory and behavioral practices that EPA is seeking to change.

One change from existing practices that warrants greater attention involves the use of market incentives, pollution prevention, and other

nonregulatory approaches. Our work has shown that such approaches may be more effective and less costly than traditional pollution control methods for dealing with certain problems that are difficult to address, such as pollution that crosses from one environmental medium—air, water, or land—to another.

EPA'S RELATIONSHIPS WITH OTHER ENVIRONMENTAL STAKEHOLDERS

Regardless of the management approaches that are used, EPA's success is tied to the performance of other environmental stakeholders, including states and other federal agencies. Accordingly, EPA's strategic plan prepared under GPRA acknowledges that the agency needs to work effectively with states and other federal agencies to accomplish the agency's missions. Despite the importance of EPA's relationship with states, our work has documented a number of difficulties that have hampered this relationship. For example, EPA's oversight of state programs has been inconsistent from region to region, and EPA has sometimes micromanaged state programs.

Relationships between EPA and other federal agencies also could be improved. For responsibilities shared with other federal agencies, EPA needs to ensure that activities are properly coordinated so that limited resources are spent effectively. For the shared responsibilities in cleaning up the hazardous waste sites at federal facilities, for example, interagency comparisons of the risks posed by these sites are difficult because EPA and the other agencies have independently developed different risk-ranking and priority-setting approaches.

CLEANUP OF HAZARDOUS WASTE SITES

Even when the risks of and priorities for hazardous waste sites are determined solely by EPA, cleaning up these sites has proven to be vulnerable to waste, fraud, abuse, and mismanagement. For these reasons and because of the billions of dollars involved, we have focused much of our work on EPA's management of the Superfund program, which was created to clean up the nation's most hazardous waste sites. Our work has identified several management problems in the program, including that EPA has not allocated cleanup resources to the most significant threats to health and the environment, has recovered only a small percentage of its costs from the parties responsible for the pollution, has had difficulties in controlling the costs for contractors, and has not

B-279755

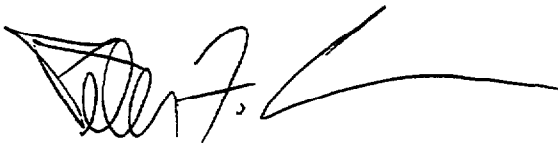
established performance goals needed to monitor the success of the agency's efforts to reduce the time cleanups take and to control the amount of funds used for activities besides the actual cleanups, such as the expenses for legal fees.

Likewise, we recently reported on factors that are hampering progress in hazardous waste site cleanups performed by EPA under the Resource Conservation and Recovery Act's Corrective Action program. This program was designed to address contamination at facilities that treat, store, or dispose of hazardous waste, such as chemical manufacturers and waste disposal companies. We found, however, that the Corrective Action program has been hampered by problems such as a cumbersome cleanup process and facilities' reluctance to initiate cleanups for which they have no immediate economic incentive to do so.

As arranged with your office, unless you announce its contents earlier, we plan no further distribution of this report until 7 days after the date of this report. At that time, we will send copies to the Administrator of EPA and other interested parties. We will also make copies available upon request.

Please call me at (202) 512-6111 if you or your staff have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Peter F. Guerrero", with a long horizontal flourish extending to the right.

Peter F. Guerrero
Director, Environmental
Protection Issues

Enclosure

KEY MANAGEMENT ISSUES FACING THE
ENVIRONMENTAL PROTECTION AGENCY

INTERRELATED AGENCYWIDE MANAGEMENT
RESPONSIBILITIES

Improvements Needed
in Setting Priorities

Over the years, we have reported that the Environmental Protection Agency (EPA) needs to make two principal improvements in the way it sets its priorities for planning and budgeting purposes. First, priorities could better reflect risks to human health and the environment. We noted in 1991 that EPA's Science Advisory Board, which advises the Administrator on scientific matters, found that funding priorities were more closely aligned with public opinion about health and environmental risks than with scientific assessment. In 1995, the National Academy of Public Administration (NAPA) concluded that, to set priorities better, EPA needed to do a better job in comparing risks and risk-reduction strategies across environmental programs and pollution problems. Second, we have found that EPA's priority-setting process has often yielded too many priorities; that is, priorities are too encompassing without being ranked as to their importance. Similarly, in its 1995 report, NAPA said that EPA's 1994 strategic plan appeared to include almost everything of interest in the agency.

EPA should be better able to identify and focus on priorities as a result of its efforts to improve and integrate its planning, budgeting, and accountability processes. However, the agency is likely to need several years to complete these efforts. The attempts that EPA has made over the years to improve and integrate these processes illustrate both the importance and the difficulty of these efforts.

Related GAO Products

Results Act: Observations on EPA's Draft Strategic Plan (GAO/RCED-97-209R, July 30, 1997)

Managing for Results: EPA's Efforts to Implement Needed Management Systems and Processes (GAO/RCED-97-156, June 18, 1997)

More Reliable Information Needed to Determine
Progress Being Made in Managing for Environmental Results

To provide the reliable information needed to effectively implement its planning, budgeting, and accountability processes, EPA is currently developing an agencywide information system. This system will depend on data from various other systems and sources that currently do not provide the information that the agency needs for measuring results. For example, the accountability component of the new system is being designed to enable EPA to obtain the data necessary to evaluate and report its progress toward its goals and objectives; however, many gaps exist in these data, and the needed data are often difficult to compile because different collection methods have been used to obtain them.

Likewise, effort is still needed to identify, develop, and reach agreement on a comprehensive set of performance measures for the agency. Particularly needed are additional environmental measures or indicators to link EPA's activities to changes in health and environmental conditions. Because the type and amount of data needed for environmental measures can be costly, EPA has to find the right balance of environmental and activity measures. In a June 1997 report, we recommended that EPA, in consultation with key stakeholders, establish benchmarks for the information system and use them to monitor the agency's progress toward obtaining the data it needs to accurately assess its progress in managing environmental protection programs.

Related GAO Products

Results Act: Observations on EPA's Draft Strategic Plan (GAO/RCED-97-209R, July 30, 1997)

Managing for Results: EPA's Efforts to Implement Needed Management Systems and Processes (GAO/RCED-97-156, June 18, 1997)

EPA Needs More Uniform Implementation
of Its Peer Review Policy

Peer review is the critical evaluation of scientific and technical work products by independent experts. According to the agency's senior leadership, within EPA peer review is a key tool for enhancing the quality, credibility, and acceptability of products that may ultimately form the basis of regulations and other key decisions by the agency. Properly implemented, peer review can also conserve the agency's resources by steering product development along the most efficient, effective course, thereby

avoiding costly and time-consuming delays. For these reasons, since 1993 EPA has had a policy calling for peer review of the major scientific and technical work products that are used to support the agency's rulemaking and other decisions.

Over the years, however, we have found that EPA has continued to face challenges in getting its peer review policy implemented evenly throughout the agency. For example, in 1996 we found that, in some cases, the peer review policy was followed, but in other cases, key aspects of the policy were not followed, or peer review was not conducted at all. Generally, two primary reasons have surfaced for this unevenness: (1) confusion among agency staff and management about what peer review is and about how and when it should be conducted and (2) inadequate accountability and oversight mechanisms to ensure that all relevant products are properly peer reviewed. We recommended that EPA take actions to ensure that the agency's peer review policy and procedures were well understood and that all major products be considered for peer review.

EPA has taken a number of actions to improve the peer review process, including (1) issuing additional guidance to eliminate confusion, (2) expanding its list of the products that should undergo peer review to include all major products, and (3) providing explanations as to why individual products are not nominated for peer review. These changes have more than doubled the number of products considered for peer review, from 370 products in 1996 to 786 in 1997, according to EPA officials. But despite significant progress, all staff still have not been trained to ensure consistent implementation of the agency's peer review policy.

Related GAO Products

Results Act: Observations on EPA's Draft Strategic Plan (GAO/RCED-97-209R, July 30, 1997)

Peer Review: EPA's Implementation Remains Uneven (GAO/T-RCED-97-95, Mar. 11, 1997)

Peer Review: EPA's Implementation Remains Uneven (GAO/RCED-96-236, Sept. 24, 1996)

ENVIRONMENTAL REGULATION INITIATIVESChallenges Facing EPA's Reinvention Efforts

EPA stated in a March 1996 progress report that its reinvention efforts are intended to "apply common sense, flexibility, and creativity in an effort to move beyond the one-size-fits-all system of the past and achieve the very best protection of public health and the environment at the least cost." For example, one reinvention activity, the Common Sense Initiative, is an effort by EPA to bring together government officials at all levels, environmentalists, and industry leaders to create industry-by-industry strategies that will work toward "cleaner, cheaper, and smarter" ways to achieve environmental protection through consensus-based decision-making. Yet while many of these reinvention efforts are consistent with past recommendations by GAO and other organizations to achieve a more integrated, cost-effective approach toward environmental protection, the agency faces significant challenges that must be addressed effectively if reinvention is to succeed:

- Key stakeholders in the reinvention process, such as states, have expressed concern about the large number of complex and demanding initiatives now being undertaken, as well as confusion over the underlying purpose of some of the agency's major initiatives.
- EPA has had difficulty achieving "buy-in" among the agency's rank and file, who have grown accustomed to the prescriptive, medium-by-medium regulation that has been in place since the agency's inception.
- The agency has had difficulty achieving agreement among external stakeholders, including federal and state regulators and industry and environmental organization representatives—particularly when stakeholders perceive that unanimous agreement is required before progress can be made.
- The agency's process for resolving miscommunication and other problems involving EPA headquarters staff, regional staff, and other stakeholders does not distinguish between problems that require the attention of senior management and those that should be resolved at lower levels within the agency.
- EPA has an uneven record in evaluating the success of many of its initiatives—making it difficult to demonstrate what does and does not work and complicating efforts to convince external stakeholders that an alternative regulatory strategy is worth pursuing.

In addition, the current prescriptive, medium-specific environmental laws impose requirements that have led to, and tend to reinforce, many of the existing regulatory and behavioral practices that EPA is seeking to change. As a consequence, the agency will be limited in its ability to "reinvent" environmental regulation within the existing legislative framework.

Related GAO Product

Environmental Protection: Challenges Facing EPA's Efforts to Reinvent Environmental Regulation (GAO/RCED-97-155, July 2, 1997)

Greater Use of Nonregulatory Approaches to Pollution Control Needed

The traditional approach to pollution control—which requires polluters to adhere to certain performance or technology standards—has helped control pollution from large stationary sources, such as factories and power plants. However, a number of environmental problems remain that traditional approaches cannot resolve or that could be resolved more efficiently and effectively through other methods. These problems include pollution from some small diffuse sources and pollution that crosses from one environmental medium—air, water, or land—to another. The selective use of market incentives to supplement traditional regulatory approaches, efforts to prevent pollution, and other nonregulatory approaches may be less costly to the economy, as well as more effective in controlling or preventing pollution.

For example, we testified in July 1997 about trends in the trading of permits to emit sulfur dioxide. We noted that there was a substantial increase in the trading of these "allowances" between utilities between 1994 and 1996. The number of allowances traded between utilities or between utilities and other entities increased from about 882,000 in 1994 to about 4.4 million in 1996. We also noted that the acid rain program, including the use of emissions trading, was successful in reducing sulfur dioxide emissions. Specifically, according to EPA, sulfur dioxide emissions in 1996 were 35 percent below the allowable level for that year.

Related GAO Products

Results Act: Observations on EPA's Draft Strategic Plan (GAO/RCED-97-209R, July 30, 1997)

Air Pollution: Overview and Issues on Emissions Allowance Trading Programs (GAO/T-RCED-97-183, July 9, 1997)

Approaches for Environmental Regulations (GAO/RCED-96-135R, Apr. 25, 1996)EPA'S RELATIONSHIPS WITH OTHER ENVIRONMENTAL STAKEHOLDERSEPA Needs to Improve Its Relationship With States

Despite the importance of an effective working relationship between EPA and its state counterparts, we have reported on a number of difficulties that have hampered this relationship over the years. Our work has documented concerns that EPA (1) has been inconsistent in its state oversight from region to region, (2) sometimes has micromanaged state programs, (3) has not provided sufficient technical support for increasingly complex requirements for state programs, and (4) often has not adequately consulted states before making key decisions affecting them. GAO reports on programs concerning the Resource Conservation and Recovery Act (RCRA), drinking water, and other environmental issues have also identified problems in the EPA-state relationship as contributing to problems in these programs' performance.

To address these issues, EPA established the National Environmental Performance Partnership System (NEPPS). In establishing NEPPS in May 1995, the EPA Administrator and leaders of state environmental programs indicated that they were seeking to strengthen the ". . . protection of public health and the environment by directing scarce public resources toward improving environmental results [and] allowing states greater flexibility to achieve those results." A key element of the partnership system is the agency's commitment to give states with strong environmental performance greater flexibility and autonomy in running their environmental programs.

Many states have since signed "performance partnership agreements" under the NEPPS program. However, given the relative newness of the program, it remains to be seen how effectively the system addresses the difficult and long-standing problems that have affected the EPA-state relationship.

Related GAO Products

Environmental Protection: EPA's and States' Efforts to "Reinvent" Environmental Regulation (GAO/T-RCED-98-33, Nov. 4, 1997)

Environmental Protection: Status of EPA's Initiatives to Create a New Partnership With States (GAO/T-RCED-96-87, Feb. 29, 1996)

More Coordination Necessary to Address
Crosscutting Program Activities

EPA's strategic plan makes broad references to the need for coordination with other federal agencies to accomplish the agency's mission, but it does not explicitly address the relationships of EPA and federal agencies with crosscutting or similar activities. Because overlapping and fragmented programs can waste scarce resources, confuse and frustrate programs' customers, and limit the overall effectiveness of the federal effort, it is important that the strategic plan directly address these relationships. Our past work has found that EPA—as the central federal agency responsible for safeguarding the environment—carries out a number of mission-related activities that are crosscutting or similar to those of other federal agencies. These activities, and the problems of coordination that are associated with them, include the following:

- One of EPA's most visible relationships with other federal agencies involves the cleanup of hazardous waste (Superfund) sites at federal facilities.¹ Interagency comparisons of the risks posed by these sites are difficult because agencies have independently developed different risk-ranking and priority-setting approaches.
- EPA shares responsibilities with other agencies for collecting and managing the data needed to perform environmental assessments. For example, data on ecosystem management are collected independently by various agencies for different purposes. Often, these data are incompatible and insufficient for decision-making.
- EPA also plays a major role in international environmental programs and activities—including efforts to address global environmental concerns, such as climate change, stratospheric ozone depletion, marine and coastal pollution, and the loss of biological diversity. However, EPA's strategic goal and related objectives on the reduction of global and cross-border environmental risks make only passing references to the need to cooperate with other federal agencies and other stakeholders in implementing this goal.

¹Numerous federal facilities have been contaminated with a wide range of substances, including highly radioactive waste and toxic chemicals, and require cleaning up. The Superfund program, established under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, governs cleanups of hazardous waste sites, including those located on federal property.

- EPA also shares responsibility with other federal agencies for ensuring a safe food supply for the American people and has therefore included food safety as one of the strategic plan's goals. In particular, EPA will strive to keep foods free of pesticides and protect the public from threats posed by tainted foods. However, the plan does not discuss the roles played by the U.S. Department of Agriculture, the Food and Drug Administration, and the Centers for Disease Control, among others, in supporting EPA's efforts to accomplish this goal.

Related GAO Products

Results Act: Observations on EPA's Draft Strategic Plan (GAO/RCED-97-209R, July 30, 1997)

International Environment: U.S. Funding of Environmental Programs and Activities (GAO/RCED-96-234, Sept. 30, 1996)

Federal Facilities: Consistent Relative Risk Evaluations Needed for Prioritizing Cleanups (GAO/RCED-96-150, June 7, 1996)

CLEANUP OF HAZARDOUS WASTE SITES

Long-Standing Management Problems Exist in the Superfund Program

We have reported on several long-standing management problems in the Superfund program. First, EPA has not consistently allocated its cleanup resources to reduce the most significant threats to human health and the environment. For instance, while EPA has begun using a risk-based process to set priorities and allocate some of its cleanup funds, its regions have not been consistent in their consideration of sites' relative risks when setting priorities for the cleanup work they manage.

Second, although EPA is responsible for pursuing reimbursement when it funds cleanups, the agency has recovered from responsible parties only a fraction of the moneys that it has spent. EPA has made some improvements in its cost recovery program, although it still recovers only a small percentage of its costs. EPA's low recovery rate remains low in part because of the agency's slow pace in revising its policy that limits the recovery of indirect costs. EPA estimates that the value of these excluded costs grew to \$3.8 billion through fiscal year 1995—up from a value of \$1.1 billion 3 years earlier.

Third, while about half of the Superfund program's budget annually goes to contractors, EPA has had long-standing problems in controlling the costs for them. In fiscal year 1996, \$696 million was spent on cleanup work by contractors, or 49 percent of the total spending for Superfund of \$1.4 billion. The remaining funds were spent on administration, enforcement, and other Superfund activities. EPA has focused attention on strengthening its management of Superfund contracts, but problems still persist and leave the agency vulnerable to making excessive payments for contractors' work.

In addition to such long-standing problems, our work involving EPA's implementation of the Government Performance and Results Act shows that the performance goals established for the program do not express key issues of concern to the Congress and others. Although the Superfund program has been criticized for taking a long time to clean up hazardous waste sites and using a large amount of funding for activities other than cleanup—for such things as legal fees—its performance goals are expressed as outputs, such as the number of site assessment decisions that will be made and the number of sites at which construction of the cleanup remedy will be completed. Although these performance goals may be needed, they do not directly address the timeliness and cost issues. Additional goals would be needed to allow the agency and others, such as the Congress, to explicitly monitor the success of the agency's efforts to reduce time frames and to control the amount of funds used for activities besides cleanup.

Related GAO Product

High-Risk Series: Superfund Program Management (GAO/HR-97-14, Feb. 1997)

Implementation of Corrective Action Cleanups

EPA and the states have made little progress in implementing the Corrective Action hazardous waste cleanup program under the Resource Conservation and Recovery Act. This program, created in 1984, principally addresses contamination at facilities that treat, store, or dispose of hazardous waste, such as chemical manufacturers and waste disposal companies. Only about 8 percent of these approximately 3,700 nonfederal facilities had completed Corrective Action cleanups at the time of our 1997 review, including only 5 percent of the facilities posing the highest risks. About 56 percent of all of the facilities—including 35 percent of those posing the highest risks—had yet to begin Corrective Action cleanups, although under other programs, such as voluntary or state Superfund cleanup programs, they may have taken some actions to address contamination at portions of the facilities.

We found four major barriers to progress: (1) a cumbersome and time-consuming cleanup process, (2) disagreements between EPA and the states on cleanup approaches, (3) facilities' reluctance to initiate cleanups if they have no immediate economic incentive to do so, and (4) a lack of resources for EPA and states. EPA, some states, and industry have undertaken some initiatives to cut the time and costs, such as streamlining the process and tailoring cleanups to the risks posed at the facilities. However, industry representatives have found that portions of the agency and some states are reluctant to use such initiatives. We believe that the agency must make additional efforts to ensure that the reforms are reflected in cleanups nationwide, including designing a strategy to ensure that EPA and state program managers have a consistent understanding of when and how to use them and how to monitor their use.

Related GAO Product

Hazardous Waste: Progress Under the Corrective Action Program Is Limited, but New Initiatives May Accelerate Cleanups (GAO/RCED-98-3, Oct. 21, 1997)

(160440)

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013

or visit:

Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC

Orders may also be placed by calling (202) 512-6000 or by using fax number (202) 512-6061, or TDD (202) 512-2537.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

<http://www.gao.gov>

**United States
General Accounting Office
Washington, D.C. 20548-0001**

**Official Business
Penalty for Private Use \$300**

<p>Bulk Rate Postage & Fees Paid GAO Permit No. G100</p>

Address Correction Requested
