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EPA

Divider Title: _____

ENVIRONMENTAL PROTECTION AGENCY FACT SHEET

EPA's mission is to abate and control pollution systematically through integration of research, monitoring, standard setting, and enforcement activities. It coordinates and supports research and antipollution activities by state and local governments, private and public groups, individuals, and educational institutions. It also assists other federal agencies in regard to the impact of their operations on the environment.

In addition to Administrator Carol Browner, a Deputy Administrator, Robert Sussman, directs the operation of the agency. Also, nine assistant administrators, the General Counsel, and the Inspector General are named by the President, subject to Senate confirmation. The nine assistant administrators head eleven program and function offices: Air and Radiation; Water; Prevention, Pesticides, and Toxic Substances; and Solid Waste and Emergency Response; Research and Development; Enforcement; Administration and Resources Management; Policy, Planning, and Evaluation; and International Activities. Ten regional administrators (subject to Senate confirmation) are EPA's principal representatives in the field with federal, state, interstate and local agencies, industry, academic institutions, and other public and private groups.

EPA has approximately 18,000 employees located across its Washington headquarters and ten regions. The agency's 1994 budget request is for \$6.4 billion, which includes \$2.7 billion for operating programs, \$1.5 billion for the Superfund program, \$75 million for the Leaking Underground Tank Program and \$2.05 billion for infrastructure funding.

The agency has identified the following nine budget priority areas for fiscal 1995: environmental leadership, state and local partnerships, sustainable development, environmental technology, pollution prevention, sound science, integrated environmental management, environmental justice, and management of human and financial resources.

A number of sensitive issues are currently high on the agency's radar screen. These are:

- The Superfund Program has been criticized, especially by environmental organizations and citizen groups, for the amount of money from Superfund litigation that goes to legal fees rather than actual cleanup.
- States and localities are concerned that the compliance costs of the Safe Drinking Water Act are not commensurate with the health risks.
- Recent state budget cuts for environmental management present new challenges to the Federal role.
- Administrator Browner has a significant role along with Secretaries Espy and Shalala to provide leadership in reducing pesticide use in the United States.

NATIONAL PERFORMANCE REVIEW
AGENCY TEAMS
ISSUE DECISION PACKAGE

TEAM: EPA

Date: August 2, 1993

Issue No.	Issue Title	5-Year Impact	NPR Team Position	Agency Position	Action from Tollgate 4 Meeting
EPA1	EPA Should Improve Environmental Protection Through Increased Flexibility To Local Government	None	-Work with small government to identify environmental mandates posing compliance difficulty; amend appropriate regulation under Regulatory Flexibility Act. -Sell regulatory reform through town meetings with stakeholders.	Agreement.	
EPA2	Streamline EPA's Permit Program To Improve Agency Efficiency And Customer Service	Save \$15 M and 250 FTEs.	-Emphasize flexibility and customer service in issuing permits. Focus specifically on new statutory elasticity, information clearinghouse, and exploration of cross-media permitting.	Agreement.	
EPA3	Promote Quality Science For Quality Decisions	None	-Develop opportunities for scientific staff advancement and implement peer review. -Reassess EPA lab structure.	Agreement (EPA initiated this issue). Administrator Browner has asked for \$0.5 M in FY 94 budget to reevaluate labs.	
EPA4	Promote The Use Of Economic And Market Approaches To Reduce Water Pollution	None	-Endorse water pollution trading and discharge fees in CWA reauthorization.	Agreement.	
EPA5	Finance A Greater Percentage Of The EPA's Programs Through User Fees		-Implement user fees to finance environmental programs by working closely with states and OMB.	Disagreement: EPA is concerned about states' reluctance to collect the fees.	

EPA6	Increase Private Sector Partnerships To Accelerate The Development Of Innovative Technologies Which Maximize Sustainable Development	None	-Accelerate technology development through public-private partnerships that identify and overcome barriers to such development. Would create jobs, clean the environment, and produce exportable technology.	Agreement: EPA's McClellan AFB model already in place.
EPA7	EPA Must Exert New Leadership Through Measurable Goals, Performance Standards, And Strategic Planning	None	-Establish environmental goals, internal objectives, and performance standards to continue transition from media-specific command-and-control to integrated pollution prevention and ecosystem management.	Agreement.
EPA8	Reform EPA Contract Management	None	-Reform EPA contract management by boosting oversight resources, implementing performance standards, and reevaluating intra/extra-mural budget.	Agreement: EPA already acting on recommendations of Standing Committee and SWAT team.
EPA9	Reorganize EPA's Office Of Enforcement	Save \$7 M and 92 FTEs	-NPR endorses Administrator Browner's enforcement plan; the initiative should look for opportunities to reallocate FTEs.	Agency requested we put this issue in the package.
EPA10	EPA Must Shift Toward Pollution Prevention And Away From Pollution Control	None	-Prioritize pollution prevention through regulations and compliance, partnerships, public info., and technological innovation.	Agency initiated this issue.
EPA11	Establish A Blueprint For Environmental Justice Throughout EPA's Operations	None	-Make environmental justice a routine consideration in all EPA functions.	Agreement.

**U.S. ENVIRONMENTAL PROTECTION
AGENCY**

**AGENCY TEAM
REPORT**

NATIONAL PERFORMANCE REVIEW

INTERNAL WORKING DOCUMENT -- NOT FOR DISTRIBUTION

AUGUST 6, 1993

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ENVIRONMENTAL PROTECTION AGENCY INTRODUCTION

In 1970, Congress created the Environmental Protection Agency (EPA) by pulling together a complex patchwork of federal programs into a single regulatory body. The new agency was charged with a deceptively straightforward mission: to control and abate the spread of pollution.

Over two decades, this goal has remained unchanged, but the means needed to achieve it have proven to be far from simple. EPA integrates research, monitoring, standard-setting, and enforcement, coordinating these diverse activities with state and local governments, private and public organizations, and educational institutions. It works with the departments of Interior, Agriculture, and Energy, serving as a focal point for all federal agencies whose operations affect the environment. EPA undertakes these functions with relatively limited resources, as reflected by its work force of 18,000 and a requested 1994 budget of \$6.4 billion.

The years since 1970 have brought an expanding system of environmental statutes under EPA's jurisdiction. These include the Clean Air Act (CAA), the Clean Water Act (CWA), the Pollution Prevention Act (PPA), the Resource Conservation and Recovery Act (RCRA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or "Superfund"), to name only a few. As indicated by the growing legislative activity, the environment has become an increasingly important issue on the nation's political agenda. Developments such as Love Canal, Three Mile Island, and pesticide poisonings have forced Americans to think about pollution in a very personal way, and their concern has subjected EPA to focused pressure.

Not surprisingly, then, the agency today has vastly more stakeholders than it did twenty years ago. The number of environmental interest groups has exploded, and by working as a community, they have built an influential role in the formulation of national environmental policy. Congressional attention has also grown. No fewer than 110 committees and subcommittees of Congress now claim some authority over EPA, making the agency second only to the Department of Defense (DOD) in the amount of oversight devoted it by Congress. To put this in perspective, EPA's budget is less than three percent of DOD's.

The growing outside scrutiny, increasing responsibilities, and limited resources of the present have brought EPA to a critical juncture. To ensure the viability of the nation's environmental future, the agency must embark on a new course. Rather than responding to high-profile incidents of pollution with isolated, media-specific approaches based on command-and-control bureaucracy, it must pursue an integrated, flexible strategy to address related environmental problems. Rather than tolerating status-quo inefficiencies as necessary evils, it must reinvent its approach to management. Rather than allowing limited resources to constrain its mission, it must search for new funds to accomplish its work, realizing that money cannot come from the Treasury alone.

The National Performance Review (NPR) has emerged with four principles to help guide EPA's new course. First, the agency must eliminate the obstacles to increased accountability and performance by **shifting from red tape to results**. One way to effect

this transformation lies in reducing EPA's detailed management of state and local governments, empowering them to pursue innovative, tailored solutions to environmental problems in their region. Specifically, the agency should give local communities greater flexibility in complying with federal statutes wherever possible and should solicit their input before completing major regulatory reforms. In addition, it should delegate responsibility over permit fees to states which are legally and organizationally prepared for the job.

Measures to advance local action must be accompanied by efforts to improve EPA's own results, and an important step in this direction would come from ensuring that all agency decisions are based on quality science. To that end, EPA should create a personnel management system aimed specifically at its scientific and technical employees and should intensify its use of peer review and quality assurance to promote excellence in science.

At a time when environmental mandates exceed the fiscal and human resources needed to enact them, government alone cannot abate and control pollution. No matter how effectively EPA removes the barriers to federal, state, and local performance, it must also bolster the role of the private sector by **introducing market dynamics** into its program wherever possible. One specific example of this principle lies in the arena of water quality, where the agency should recognize that parties subject to Clean Water Act regulation can often identify and implement the most efficient mechanisms to ameliorate toxic buildup. To make it possible, however, EPA must work with Congress to allow trading of waste discharges when such exchanges meet overall quality requirements while saving money. The agency should augment its effort to empower independent industry initiatives with a commitment to pursue public-private partnerships. These could be instrumental in the accelerated development of innovative environmental technology, for instance, which neither business nor government can fully afford on its own.

In some domains, of course, partnerships are unrealistic, and EPA simply needs further financial resources to address given issues through in-house means. To obtain such resources, the agency should implement user fees so that recipients of specific services actually pay for the costs. Though not a panacea, this approach would raise revenues by eliminating government subsidy for special activities not beneficial to the average taxpayer.

Increasing revenues will be ineffectual unless EPA makes better use of the resources already at its disposal by **creating a quality management culture**. It should begin with an agency-wide drive to exert new leadership through measurable goals, performance standards, and strategic planning. These steps should address the nation's full range of environmental problems and EPA's own internal operations. One in-house issue which demands particularly urgent attention is contract management, where overdependence on contractors and inadequate oversight of their work have yielded ethical abuses and a deficit of accountability. Another pressing internal issue lies in the agency's office of enforcement, where disparate, media-specific approaches have thwarted the overall effort to ensure environmental compliance. Administrator Browner is acting to resolve both problems with major initiatives, but EPA's leadership reforms must follow-through on her proposals.

Quality management, market dynamics, and results orientation will do much to help EPA achieve its original mission. **Now is the time**, however, to acknowledge that the Agency must go beyond pollution control and abatement. The shrinking resources of the

present age, the immense costs of toxic cleanup, and the difficulty of eliminating poison transfer between media, demand that EPA redirect its focus: the new priority must be to prevent environmental degradation altogether. Though the Pollution Prevention Act of 1990 provides a worthy point of departure, the agency can do more. Regulatory reform, private partnerships, technological innovation, greater public information, and state and local cooperation must each be harnessed to effect the shift in paradigm. As EPA expands its original vision, moreover, it must make room for another imperative. The time has come to recognize that pollution is not a problem faced equally by everyone in our society, and that ameliorating this inequity must become a regular consideration in all EPA decisions. The Agency's future lies in promoting not only environmental safety, but environmental justice as well.

The discussions that follow do not attempt to encompass the full set of concerns within EPA. The continuation of this process will bring additional issues and further improvements. Section three provides a preview of this continuing effort as the Agency reports on its own internal reinvention findings. The present recommendations of the National Performance Review, however, reduce the deficit by approximately \$1 billion over the next five years and set EPA on a new course for the next century.

Section II

Issue Papers and Recommendations

Shifting from Red Tape to Results

IMPROVE ENVIRONMENTAL PROTECTION THROUGH INCREASED FLEXIBILITY FOR LOCAL GOVERNMENT

Background

Environmental expenditures are quickly becoming one of the fastest growing items in local government's budgets, as the localities struggle to comply with the many new requirements under the Safe Drinking Water Act, Clean Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Superfund, and other environmental laws. With little or no prospect of federal grants and limited availability of loans, local governments are finding it difficult to finance new infrastructure, upgrade existing facilities, perform monitoring, and meet numerous other requirements. By the year 2000, the Environmental Protection Agency (EPA) estimates that local governments will need to spend nearly \$50 billion annually just to meet existing requirements.

The front-line managers of environmental programs, local governments have had little say in the development of past environmental regulations. With the opportunity to "reinvent" the way EPA works with state and local governments, EPA has a chance to increase significantly the effectiveness of our nation's environmental programs.

EPA's regulations often apply with seemingly little or no consideration of the great diversity of environmental conditions throughout the nation, because it often relies upon models or assumptions when writing regulations. For instance, a regulation may describe the contaminants in drinking water based upon a national model; or it may describe the extent to which EPA believes unlined landfills will cause contamination of groundwater in arid climates based upon certain assumptions. But, once the regulations are in effect, EPA does not determine in any systematic manner whether those regulations effectively address the diversity of environmental conditions in the country.

Requirements are passed down from EPA to the states and tribal authorities and then to local governments, utilities, and special districts for implementation. Even when states have been delegated authority by EPA to issue waivers, they are constrained by limited resources to conduct the analyses or take other steps necessary to issue them. For example, water utilities are required to test for some 80 contaminants in drinking water, some on a

quarterly basis for the first year, even when specific contaminants are not found to be present in the water supplies. Yet, the states often lack the resources necessary to develop a waiver program. In the southwest, the city of Yuma, Arizona has experienced an increase in desert dumping of solid waste by citizens. Because of the additional economic burden, taxpayers have refused to support initiatives to expand the local landfill with double liners and add a leachate collection system, as required under federal regulations when there is less than three inches of rainfall and some 100 inches of evaporation annually. The EPA needs to develop regulations more appropriate to differing conditions and circumstances, such as in Yuma, where compliance with the regulation may not be necessary, or where there may be alternative solutions. Where the statute provides insufficient flexibility, EPA should seek legislative amendments.

In addition, with the large volume and complexity of existing environmental regulations, local governments are particularly frustrated by the steady stream of new requirements. As soon as they have invested in upgrading a facility, it often seems that another set of requirements is announced. For regulations currently under development, EPA could use the maximum flexibility already afforded under the Regulatory Flexibility Act of 1980. This Act allows federal agencies, when adopting regulations to protect the health, safety, and economic welfare of the nation, to provide alternative, or flexible, regulatory approaches which do not conflict with the stated objective of applicable statutes. Local governments are struggling to make a correlation between what they are required to do and the actual health and ecological risks to their communities. Requirements have descended with no sense of how to prioritize compliance activities, and often without sufficient flexibility to do so in any case. Should the community invest in removing lead in drinking water or radon in basements? Should the next tax increase be directed to improperly closed landfills or stormwater overflows?

Lack of time and resources dictates that managers must set priorities, knowing that all environmental requirements will not be met immediately. The dilemma is which ones and with what consequence? EPA has begun to work with some states and some local governments to conduct comparative risk assessments to help decide among competing demands. However, the level of this activity differs in each of the 10 EPA regions where

primary responsibility exists for dealing with states and local governments. Considerable work needs to be done to ensure that national environmental goals are met while providing sufficient flexibility to address priority risks in different parts of the country.

The EPA needs to work more closely with state and local governments to determine which regulations are giving them the most difficulty. It also needs to provide, in a systematic way, innovative financial, technical, and management approaches to help meet environmental goals. EPA has done some of this: by promoting simpler and less costly treatment technologies for small drinking water and wastewater systems; encouraging restructuring and other measures to make systems more cost-effective, such as consolidating several small drinking water systems in a region; and promoting state revolving loan funds, bond banks for financing environmental infrastructure, and other techniques to provide tax exempt, low-interest loans to interested communities. Again, the extent of these activities varies from region to region. Also, in some cases, administrative or legal barriers frustrate adoption of cost-effective technology or financing approaches. EPA needs to continue to explore and promote better ways of achieving environmental objectives and address the barriers to innovation and change, along with providing maximum flexibility.

Recommendations

- 1. The Environmental Protection Agency should amend the regulations it determines are most troublesome for local government, pursuant to the Regulatory Flexibility Act of 1980, to provide alternative and flexible approaches to meeting environmental mandates.** EPA should establish an implementation group by November 30, 1993, to determine which regulations should be selected for revision. With guidance from the group, relevant EPA program offices should begin to develop appropriate language to amend the regulations selected. The public notice of EPA's intent to amend the selected regulations should be issued no later than January 1, 1995. If successful, this process could set a precedent for additional flexibility in the future.
- 2. The Environmental Protection Agency should convene a series of town meetings across the U.S. with environmental and other citizen groups and local officials to ensure that outside input is considered before regulatory reform recommendations are**

finalized. The town meetings should be convened in conjunction with the implementation group. One objective of these meetings should be the soliciting of interested stakeholders for their views on how EPA should increase its support of state, tribal, and local governments in assessing and prioritizing their ecological and community health risks.

3. The Environmental Protection Agency should establish a pilot project that will assist one community to assess its environmental and community health risks in directing resources to priority problems. As an outcome of the pilot, EPA should assist the community to recommend appropriate cost-effective solutions to priority problems. The pilot should be established by March 1, 1994. If successful, this pilot should then serve as a model for other small communities, and could become the impetus for additional regulatory and, perhaps, statutory change.

Implications

If communities do not have the money to pay for compliance with environmental regulations, they will not comply, and the environment, and their economy will suffer. However, regulatory flexibility may be initially opposed by some environmental groups, who may contend that the program is designed to waive environmental mandates. Therefore, these groups should have a role in the flexibility process.

Fiscal Impact

This proposal is cost-neutral. Granting regulatory flexibility will not require a major additional investment of resources. The implementation of the pilot program and the town meetings can be funded through existing appropriations.

STREAMLINE ENVIRONMENTAL PROTECTION AGENCY'S PERMIT PROGRAM TO IMPROVE AGENCY EFFICIENCY AND CUSTOMER SERVICE

Background

Historically, the Environmental Protection Agency (EPA) and its state partners have relied heavily on permits as the primary vehicle to achieve environmental protection. A permit is an authority granted by EPA to the permit holder to release or discharge a pollutant into the environment, or to store, treat, or dispose of hazardous waste materials. The permit reflects the limitations established by the statutes for pollution discharges and handling of hazardous wastes. Permits may be general or specific. General permits specify exactly what a class of facilities is required to do, as in the dry cleaning industry or the paper pulp industry. They are used when it is impractical or unnecessary to issue specific permits for each facility, such as numerous small facilities with similar operations. Specific permits specify exactly what a given facility is to do often taking into account particular conditions at the specific facility. While this strategy has succeeded in controlling sources of pollution from large, centralized facilities, the current permitting process has expanded to include many small, diverse, and decentralized sources of pollution for instance, stormwater discharges.

Currently, EPA and the states are responsible for processing more than 730,000 permits in the media (air, water, solid waste and toxics) for which they have responsibility. EPA has annually budgeted more than 1,000 positions (most of which are located in regional and field offices) and about \$800 million in the form of grants to states and contract dollars to conduct permit activities. Despite this resource investment, it is not always possible to issue or reissue permits in a timely manner, due to insufficient data for the permit writer to develop the permit, and appeals, when permits are denied. As a consequence, permit issuance is slow and inefficient to an applicant. Depending on the type of permit, the time it takes from application to issuance may range from ten months to two years. Whenever notification of a permit denial is appealed, lengthy public hearings add to the time it takes for a permit to be issued.

Moreover, EPA operates under twelve major environmental statutes and the regulations implementing those statutes. Because of concerns for due process and a desire

to facilitate public participation, some permit programs tend to prescribe the specific, as opposed to the general, means by which environmental protection is achieved. This eliminates the opportunity to use innovative or alternative approaches. Similarly, these requirements constrain EPA's ability to address cross-media concerns, and innovative pollution abatement methods. For example, point sources (such as discharge from a plant) versus non-point sources (such as fertilizer runoff) of discharges into waters, and waste water and stormwater discharges could use innovative pollution solutions through permitting. Currently, a multimedia permitting pilot is being conducted in the state of New Jersey.

Given the large volume and different kinds of permits requiring processing, neither states nor the agency can expeditiously or effectively address the more than 730,000 permittees. A question is raised whether a permit is always the best method for achieving environmental protection and risk reduction. Therefore, it is essential to prioritize, group, and target permitting activities according to types of facilities to be regulated, their geographic location, and the nature of the types of permits that will be required.

Because permit issuance responsibilities are divided between EPA and the states without clear-cut lines delineating respective expectations and responsibilities, miscommunication adds to the delay in the permitting process. States must rely on EPA to provide them with the technical guidance and permit rules. When EPA fails to do so, implementation becomes problematic. For example, Title V requirements of the 1990 Clean Air Act Amendments (CAAA) required EPA to issue the permit rule by November 15, 1991; however, disagreement among EPA, the Office of Management and Budget (OMB), and the Council on Competitiveness over certain requirements in the final rule delayed its issuance for eight months. This in turn caused a delay in issuing the final permit rule for federal and state implementation of Title V's requirements. Moreover, some state legislatures deferred action on bills authorizing agencies to implement permit programs and collect permit fees. For example, while EPA has provided some guidance on implementing Title V, additional program and fee guidance that it planned to provide to states in 1992 has not been issued. Consequently, some states will find it difficult to meet the November 1993 deadline set by the CAAA for submitting their permit program plans to

EPA.¹ Delays in meeting the milestones for implementing the permit program slows efforts to improve air quality, determining emission levels, monitoring emissions, and other requirements.

In addition to the division of roles between EPA and the states, the regulators and the regulated community (the permittees) view the permitting process as administratively burdensome. One specific complaint is that there are too many forms required to apply for a permit. This excess paperwork adds to the administrative burden at both the state and federal level. Many states reported that the excess paperwork significantly slows the permit review process.

The states also believe that EPA practices excessive oversight. States with well-established pollution control permit programs indicated that a more appropriate role for EPA is in technology transfer and not in needless oversight of what the states are doing. These states would prefer more freedom, along with the delegated authority to carry out their program responsibilities. For example, in the water quality permitting program, some states raised concerns that EPA micromanages each water quality permit issued by the state.

Experts suggest that greater environmental protection could be afforded by refocusing EPA's activities from individual permit reviews to providing technical assistance, and the development of a state/federal resource allocation plan to address water quality problems with the highest environmental risk.

Furthermore, the lack of an integrated database system in the states or regional offices of EPA to track permits makes it very difficult for applicants to know what is required for a permit, and for regulators to know the types of permits, numbers, and geographic location of the various permitted facilities. Partnerships with the states need to be developed to cooperatively build the necessary integrated databases which would greatly enhance monitoring and compliance for enforcement as well as providing information for emergency responses to environmental accidents.

Finally, the current permitting procedures and programs do not effectively encourage innovative approaches to the process often because some existing regulations and statutes do not allow flexibility or the use of innovative approaches. Even when regulations and statutes allow for innovative approaches, the agency budgeting and planning process does

not allow up-front investments to pay for these approaches. Although some statutes do not specifically prohibit pilot projects for new approaches, most do dictate the specific technology that must be used. Without incentives to encourage innovative approaches, little progress will be made in streamlining the permit process. For instance, the National Advisory Council For Environmental Policy and Technology has stated that the current permitting and compliance systems discourage all stakeholder groups from taking the risks necessary to develop innovative technologies -- whether for pollution prevention or for pollution control -- and to bring them into routine use to solve environmental problems.

Recommendations

- 1. The Environmental Protection Agency should establish a permits clearinghouse by July 1, 1995, to serve as a single point-of-contact for regulated industry and local governments to obtain information about national and regional regulations and permitting requirements.** This would include general, simple-to-understand information, as well as names and numbers of state and/or EPA regional or headquarters contacts that the business could use to receive technical assistance on permitting issues. The clearinghouse should offer a national EPA permits hotline and/or computer bulletin board that businesses could access through their own computers.
- 2. EPA should authorize states that now have full statutory authority and permit fee systems in place to take full delegation and responsibility of permit programs.** This would allow states ample flexibility in dealing with local and state program needs instead of the "one size fits all" approach.
- 3. EPA should identify by June, 1994, statutes which prevent flexibility in permitting and report to the Administrator for followup action.** Flexibility in permitting is needed to stimulate new approaches for pollution abatement. EPA should encourage regional offices to use more flexibility in dealings with states, especially where traditional approaches have proved ineffective.
- 4. EPA should develop as a pilot project, a cross-program permit tracking system with one state and one region by June, 1994.** This would allow for multi-media permit assessment, cross-media compliance, and enforcement actions, as well as greater access by

the public and researchers to permit information. In addition, such a database could include environmental results and outcomes based on monitoring systems with feedback and targeting for permit programs. If the pilot project is successful, the technology could be transferred to other states.

Implications

Streamlining and simplifying the permitting process will increase stakeholder participation and credibility as well as savings in administrative costs to EPA and the states. Increased state partnerships will improve performance and increase stakeholder participation in the permitting process. Establishment of the permits clearinghouse will improve customer satisfaction by reducing paperwork and other administrative burdens. Development of a permit tracking database would expedite the permit process, target risk assessment, and provide information for emergency responses to environmental mishaps.

Fiscal Impact

Streamlining by reducing delays and staff time in the permitting process could result in savings for EPA, the states, and the regulated communities. Additional FTEs needed from 1994-96 should be obtained from existing staff within the agency.

FISCAL IMPACT TABLE

	In Millions of Dollars				
	1994	1995	1996	1997	1998
Budget Authority	\$0	\$0	\$0	\$7.5	\$7.5
Outlays	\$0	\$0	\$0	\$0.4	\$7.5
Changes in FTEs	0	0		100*	150*

* This FTE figure was supplied by EPA; however, at time of printing, EPA has decided to review their methodology for the derivation of these numbers.

Endnotes

1. General Accounting Office: " Air Pollution, Difficulties in Implementing a National Air Permit Program," GAO/RCED-93-59 (Washington, D.C., 1993).

PROMOTE QUALITY SCIENCE FOR QUALITY DECISIONS

Background

Rulemaking and other policy decisions at the Environmental Protection Agency (EPA) almost invariably rely on science, with the nature and extent of that reliance varying considerably from one instance to another. But one factor is constant: quality must be a first-order concern in deciding what scientific information is relevant, how it is presented, and how it is used.

Quality science includes the following characteristics: a clear identification and prioritization of the most important scientific questions to be addressed; the identification and use of the most appropriate and powerful experimental and analytical designs; employment of state-of-the-art experimental techniques; accurate measurements; validation and independent review processes; and recruitment, retention, and reward of high-quality scientific personnel.

Regulatory and research science at EPA is performed both in its 12 research and development laboratories and in its program and policy offices. Many contributions made by EPA scientists are widely respected by the research community. For example, its analytical methods, predictive models, and risk-assessment guidelines are used as standards by other agencies, both nationally and abroad.

The role of science in EPA policies, decisions, and actions is much less prominent than appropriate. A recent study noted that EPA is seen as distorting scientific analyses to make them fit its policies.¹ The report recommendations called for increased use of peer review, expansion of in-house research (e.g., by recruiting more world-class scientists), and setting risk-based priorities for research and development (R&D). A subsequent study reinforced these ideas and called specifically for consolidation of laboratories to achieve a stronger programmatic focus in selected areas.²

EPA must begin to focus its energies and resources in five key areas if it is to become recognized as a science agency as well as a regulatory agency. The first is in the nurturing and development of its scientific staff. EPA has not previously demonstrated capabilities in this area. Scientific and technical factors often receive insufficient weight in

developing job descriptions, setting performance standards, designing training programs and career-development opportunities, creating career ladders, and rewarding achievement.

Second is peer review and quality assurance. Regulatory decisions are most likely to be cost-effective if they are based on risk assessments or other technical work-products that embody state-of-the-art scientific principles, models, and data. One important procedure for obtaining such high-quality products is peer review--i.e., conducting independent reviews by objective subject-matter experts. Another key procedure is to require that the underlying data be gathered in accordance with strict quality-assurance guidelines. Although such procedures exist within EPA, they are not consistently used. Policy decisions often lack credibility because they are based on work-products that either are obviously flawed or lack the endorsement of outside experts. As a consequence, EPA decisions are frequently perceived by Congress, the Office of Management and Budget (OMB), and other federal agencies, industry, or the public as not grounded in sound science.

Third, good laboratory systems are another component necessary to maintain quality science. Scientists cannot be effective without a quality infrastructure for R&D. This includes state-of-the-art facilities and instrumentation, well-equipped libraries, high-performance computing and telecommunications resources, and a responsive procurement and budgeting system. Moreover, if policy-makers are to benefit from improvements to the science base, more strategically focused investment in R&D is imperative. Recent studies have noted that the R&D effort at EPA is neither large enough nor focused enough to meet the mission requirements.

A fourth area necessary to sustain quality science is administrative overhead for R&D. Reductions in science and engineering career positions in recent years not only have fostered undue dependence on contractors but also have encumbered EPA scientists with new contract management duties--thereby shifting their focus and their talents toward administration and away from what they do best. Moreover, laboratory scientists are unnecessarily encumbered by inflexible budgets and the fact that jobs slots and contract dollars are not interchangeable.

Finally, communication and coordination between EPA policymakers and scientific staff are too fragmented to be effective. For example, inadequate coordination among programs and the laboratories has led to science being practiced in isolation and with no apparent impact on the research agendas of other agencies.

Recommendations

- 1. The Environmental Protection Agency should work to establish guidelines for professional development and promotion of the scientific and technical staff.** This should address a non-supervisory career path. Also, EPA should review and evaluate "best practices" of other federal science agencies (e.g., the National Institutes of Health) which have made progress in developing successful scientific personnel systems and tenure tracks, to use as potential models.
- 2. EPA should expand and intensify the use of peer review and quality-assurance procedures to promote excellence in science.** Through specific policy guidance from the Office of the Administrator, existing procedures for peer review and quality assurance would be integrated further into EPA programs.
- 3. The Administrator should assess the organizational effectiveness and appropriate structures of EPA's R&D laboratories.** The President's budget request for fiscal 1994 includes funds for a study to address research needs and to identify options for making the R&D program more efficient. Also as a part of the study, EPA should identify management and administrative processes that can be streamlined.
- 4. EPA should develop a plan to integrate opportunities for increased scientific communications within and outside EPA.** Through increased use of workshops, temporary reassignments, and other methods, EPA scientists would gain more opportunities to discuss environmental science and its applications with peers (both internal and external) as well as with Congressional staff, members of the news media, and the general public.

Implications

Improvements in the quality of science at EPA will result in renewed credibility and stature for EPA's scientists. In addition, regulatory decisionmaking will be based on optimal scientific analyses.

Fiscal Impact

There are no additional costs associated with this issue.

Endnotes

1. "Safeguarding the Future: Credible Science, Credible Decisions". The Report of the Expert Panel on the Role of Science at EPA (March, 1992).
2. A Report of the Carnegie Commission on Science, Technology, and Government, "Environmental Research and Development: Strengthening the Federal Infrastructure," (Washington, D.C., December, 1992).

Introducing Market Dynamics

PROMOTE THE USE OF ECONOMIC AND MARKET APPROACHES TO REDUCE WATER POLLUTION

Background

The general principle underlying market-based approaches to dealing with water pollution is that the parties subject to pollution control requirements can identify and implement the most cost-effective or efficient mechanisms to reduce or eliminate pollution.

Market-based approaches are based on a common principle that the "polluter pays," that is, polluters face an economic disincentive, while non-polluters may be rewarded through the same mechanism. Examples of market-based approaches include pollution discharge fees, pollution trading systems, and deposit-rebate programs. Each of these approaches provides a financial incentive to the polluter for eliminating or reducing discharges and emissions.

To date, market-based approaches to water pollution have not been widely implemented in the United States. Two likely reasons for this are the inflexibility created by certain environmental regulations (especially those that stipulate treatment technologies rather than performance standards), and the legal/institutional inertia present in federal, state and local agencies that discourages new approaches. Taken together, these factors have discouraged innovation in lower cost alternatives to conventional wastewater control approaches.

Recently, however, market-based approaches to water pollution control have been proposed by environmental groups and lawmakers, as well as by the Environmental Protection Agency (EPA). However, unless the Clean Water Act is amended to provide for the use of market-based options, industry will be reluctant to spend the money necessary to develop new ways to control wastewater discharges.

The Clean Water Act does, under certain circumstances, allow for water pollution trading between point sources (such as plants that discharge pollutants), between point and nonpoint sources (such as fertilizer runoff), or between nonpoint sources (NPS). For example, two waste water treatment plants that comply with treatment technology requirements can trade discharge loadings to meet water quality standards. In principle, trading allocates reductions in pollutant discharges across sources using cost-effectiveness

as a criterion. In practice, regulated sources can avoid treatment upgrades to meet water quality standards, if they arrange for equivalent or greater reductions in loadings from other sources that discharge to the water.

In the case of point/nonpoint trading, the usual scenario is that point sources must face pressure (usually in the form of regulatory requirements) to further reduce loadings. For example, meeting water quality standards may require additional wastewater treatment for a point source, such as advanced treatment for a publicly owned treatment works (POTW). If trading is available, the POTW may find a more efficient means to achieve the water quality goals by obtaining reductions from NPS contributors to the same water body. In this case, the POTW pays or otherwise arranges for the nonpoint sources to control their discharges rather than paying for the installation of more advanced treatment. The process basically proceeds in the same fashion in a nonpoint/nonpoint trading scenario.

EPA estimates that point/nonpoint trading currently has the potential for application in at least 950 water bodies (lakes, rivers and streams) that are affected by nutrients and municipal and/or industrial discharges. Nutrient discharges are believed to be the type of pollution problem most readily dealt with in a trading system because: (1) they are frequently discharged by a variety of sources, and (2) nutrient trades may raise fewer complex issues than trades involving toxic discharges.

A second market-based approach to controlling water pollution could be an incentive system wherein fees are paid by polluters based on the amount and/or nature of their wastewater discharges. Fees can be established to reflect the quantity, toxicity, or other adverse characteristics of the pollutant(s) present in the discharge. These fees are used in some European countries to finance wastewater control programs. The European programs have shown that these fees act as an incentive to reduce pollution only when the fee is set above the cost of pollution abatement. Setting the appropriate fee level to serve as an appropriate deterrent to pollution is far from an easy task.

In May 1993, legislation (H.R.2199) was introduced to establish a "Clean Water Trust Fund" based, in part, on fees levied on wastewater discharges containing specified pollutants. Under the bill, existing state revolving funds (SRF) would remain a principle means of financing the Clean Water Act's National Pollutant Discharge Elimination System

(NPDES) program requirements that apply to municipal wastewater treatment systems, nonpoint source control programs, and certain other water pollution control efforts. However, the bill would supplement federal appropriations for the Clean Water Fund by imposing excise taxes on sales of pesticides, fertilizers, and animal feed; by imposing user fees on industrial and commercial water use; and by imposing discharge permit fees on industrial and commercial discharges of chemical pollutants in wastewater and to comply with water quality standards.

Water pollution discharge fees serve as a market disincentive to industry. EPA has a lead role in identifying those fees that could result in the greatest reduction in water pollution.

Recommendations

- 1. The Environmental Protection Agency should work with Congress to propose language amending the Clean Water Act (CWA) to explicitly encourage market-based approaches to reduce water pollution. These approaches should include trading waste discharges among sources when pollution controls are needed above technology-based guidelines to protect water quality. EPA currently chairs an interagency task force on the Clean Water Act reauthorization. EPA should work with other agencies to broaden market-based options available to state and local governments for meeting water quality objectives.**
- 2. The Administrator should work with Congress to identify water pollution discharge fees that could be included in the Clean Water Act reauthorization.**

Implications

Market incentive approaches are not likely to be zero-cost panaceas. To adopt these approaches, difficult problems need solving, such as the revisions of state or local permitting regulations and implementation issues involving trading agreements. For those who are willing to venture trading approaches, there is an opportunity for cost savings.

A downside to trading is that the new regulatory flexibility granted to achieve a net environmental gain will result in some added pollution somewhere. This is not likely to be

acceptable to environmental groups and the general public who are committed to zero discharge of pollution.

Fiscal Impact

This recommendation will impose no additional costs.

FINANCE A GREATER PERCENTAGE OF THE ENVIRONMENTAL PROTECTION AGENCY'S PROGRAMS THROUGH USER FEES

Background

The cost of environmental protection is exceeding the resources available to meet that challenge. To overcome this fiscal dilemma, alternative revenue sources must be found to finance environmental mandates. The collection of user fees for both the Environmental Protection Agency (EPA) and approved state regulatory programs will increase the revenue base to operate these programs through user-based sources and reduce the drain of these programs on federal general revenue sources.

A user fee is charged to cover the costs of services, in this case, those rendered by the EPA or state-operated environmental programs. To carry out its regulatory mandate, EPA currently provides services such as permit reviews, inspections, and certifications, among others, to specific parties free of charge. By instituting a fee-for-service mechanism, a subsidy for government services is eliminated; the costs are borne by the particular recipient of the service, and not by the average taxpayer. By shifting the cost of these services to the recipient, new revenues will be generated, reducing or eliminating the dependence on general revenues to carry out these programs.

In 1990, the Omnibus Budget Reconciliation Act (OBRA) required EPA to establish user fee programs, to total \$39 million annually, by 1992. At present, however, EPA has imposed few user fees.

While OBRA requires that EPA set up new fee programs, it cites the Independent Office Appropriations Act (IOAA) of 1952 as the authority to be relied upon for promulgation of regulations related to fee programs. The IOAA, however, as a piece of legislation, is inadequate to establish a meaningful fee system. The Act deals only with federal cost recovery and does not address state funding mechanisms. It authorizes the recovery of narrowly defined costs, precluding cost recovery for many program activities, such as, in the case of water programs, water quality assessment and monitoring, regulation development, technical assistance, and others. Moreover, the Act requires that revenues raised revert to the Treasury, preventing their dedication to environmental purposes.

In successful user fee programs across the federal government (for example, in the

Patent and Trademark Office, Security and Exchange Commission, Food and Drug Administration), the user fee program is authorized through legislation. That is, the justification for the fee, the setting of the fee, and the mechanism for collection of the fee are specifically accomplished by statute.

For EPA to effectively implement its user fee programs, new legislation is needed to authorize the establishment of specific user fee programs under each statute. Some of the important factors that need to be addressed are: how fees will be set, how the services to be charged will be chosen, and where the revenue is to be directed. If legislation were enacted that addressed the EPA user fee programs and tailored each program to its relevant statute, the agency would then be able to meet OBRA's directive that it institute user fee programs, potentially at an amount much greater than the \$39 million cited in OBRA. In the 1988 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), a user fee program is specifically described. This is one of the few examples at EPA of existing user fee programs, and serves as a good example of how user fees can be established under each environmental statute.

In instituting user fee programs and requiring services previously delivered free of charge to be paid for, measures must be enacted to ensure that the services provided are worth the money that is being paid for them. Performance measurements must be established that, for example, set the length of time that it will take for EPA to issue a permit, review an application, or carry out an inspection. If industry is assured that an agency can deliver better quality services through the collection of user fees, industry may be willing to pay for that service as a tradeoff. It is expected that user fees will create the incentive both for EPA to provide and industry to expect more efficient and effective service.

The 1988 Amendments to FIFRA illustrates the advisability of such measures. In instituting the two FIFRA fee programs, no performance measures were delineated, and the programs were provided no incentives to render better quality, more effective services. The two programs have suffered because of this omission. While the pesticide industry was now required to pay for registrations that it previously had been supplied free of charge, the program office supplying the service made no efforts to improve on the delivery of this

service; the industry was now paying for the service and not receiving any increased benefit. As a result of these problems, and others, a good amount of the smaller pesticide companies chose not to reregister their pesticides, subsequently dropping their product from the market, or dropping out of the business altogether. Therefore, new legislation to establish user fee programs should combine incentives for the program office, with measurable performance standards to ensure that industry receives a positive return for the fee it will now be paying for a service it previously received at no cost.

To provide program offices with incentives to offer better services, a portion of the revenue received from the collection of user fees should be dedicated to fund the program as an inducement to (and as contingent on) the provision of better services. This additional revenue should be reinvested back into the service area -- it could fund services such as better information systems or hiring technical people -- to continually work to achieve a better managed, more effective program. Not only will this motivate the office providing the service, but by showing industry that the fee revenue directly funds the provision of better service to them, industry will find the fee program more acceptable. If the office falls short of its performance measures, as previously agreed to between the program and industry, and as delineated in the legislation, the amount of the fee revenue provided to the program could be reduced.

While a portion of the fee revenue should be reinvested into the program, the remainder of the revenue, or savings from dollars previously appropriated to support the programs, could revert to the Treasury. The savings gained by shifting the cost of operating the programs from general revenues to the recipient of the service, in time, could be quite large. As the programs begin to support themselves through fee revenues and cost recovery, the funds previously directed to running the program could be freed up and redirected to the reduction of the federal deficit.

In those areas where federal regulatory programs are administered by states, there are further opportunities to impose user fees. The Clean Air Act Amendments (CAAA) of 1990 set a precedent for this approach, with the states running their programs not from funds received from the federal government, but from fees collected from the recipients of services. This Act and its amendments should be used as a model for the establishment of

state-run user fee programs under other statutes, such as the Clean Water Act, the Resource Conservation and Recovery Act, and others. Under the CAAA, states are required to impose fees to recover the cost of new state-administered permit, enforcement, and monitoring programs as a condition for the delegation of the programs from EPA. If a state chooses not to accept the delegation of authority to operate a program itself, the program would be run at the federal level by EPA, and the fees would be collected by EPA. While there is some fear that certain programs, due to their complexity and the difficulty of their administration (such as the Safe Drinking Water Act), would be returned by the states to EPA *en masse*, the states are generally interested in receiving the delegation of a program, and in most regulatory programs this should not present a problem.

Expanding the CAAA approach to other environmental permit programs -- water pollution, hazardous waste, and underground injection control (UIC) -- would provide the states with new revenues to cover the costs of these regulatory programs. Currently, states receive federal grant monies from EPA to cover a percentage of the costs of running these regulatory programs. Shifting the costs of operating these programs to the collection of user fees would relieve EPA from providing these state grants (fiscal year 1993 budget authority: air--\$145 million; wastewater--\$58 million; hazardous waste--\$93 million; and UIC--\$11 million); and would free scarce federal dollars. As federal and state legislation (and rulemaking) would be needed to establish fee programs for these other permit programs, those grants probably could not be reduced until 1996, at the earliest. The savings from reductions in state grants, totalling \$1.1 billion between fiscal years 1994-98, should also revert to the Treasury.¹

Recommendations

- 1. The Environmental Protection Agency Administrator should work with Congress to develop a legislative proposal for an omnibus environmental user fee statute, by April 15, 1994.** Each program office should be directed to reexamine all EPA services with the potential for the imposition of user fee programs. This should include a process to identify stakeholders and work with them to establish performance goals by which the services will be provided, cost estimations of services and the setting of fees.

The generic user bill should include language which specifies requirements for identifying the service to be assessed a fee, the calculation, justification, implementation, and collection of the fee, and identifying the universe to be covered by the fee, as it relates to the various regulatory statutes. The cost to be recovered should be described clearly and simply. The cost description should show a direct connection to the activity requiring a regulatory service. Language should also address how the funds received through the fee programs will be distributed, and how the costs to run the program will be reimbursed.

2. To address state-administered programs, language should be introduced in upcoming reauthorization bills so that, where appropriate, as a condition for the delegation of EPA programs, states are required to impose user fees to cover the costs of administering the programs. The Clean Air Act Amendments of 1990 should be used as a model. The basis for the amendment is to establish an alternative mechanism to pay for the operation of these programs. Rather than paying for programs out of taxpayer dollars, the specific recipients of the services should be required to now pay for those services. If states choose to be delegated the authority to administer the program, then they must collect fees from the recipient of the service, and not continue to depend on federal grants to support the operation of these programs.

3. The Office of Management and Budget, along with EPA and the states, should develop a plan to phase out state grants. This plan would be implemented as states' user fee programs are enacted. OMB has provided initial data which outlines possible reductions in these grants as they are replaced by new revenues from the collection of fees.

Implications

Performance measures on EPA-provided services, as negotiated between Congress, EPA, and the recipients of the services (industry), should result in more efficient and effective program management. Delegating greater program responsibility to the states will provide them with greater control and responsibility over their environmental obligations as mandated by federal law.

Another incentive for states to seek approval to administer federal environmental programs is the ability to tailor the user fee programs to the political and economic climate and needs of the particular state, rather than being the recipient of a "one size fits all" user fee program at the direction of EPA. Requiring by law that states impose user fees to cover the costs of running these programs will ensure that they are able to fund their

environmental mandates, and will shift the payment of these services from the taxpayer to the specific recipient of the service. The point must be made very clear that the burden to pay is being shifted to the recipient of the service, and not the state. According to OMB, requiring state imposed fees was not controversial during the Clean Air Act reauthorization. State environmental agencies supported a dedicated fee to fund their operations, particularly as its nationwide application avoided the competitive disadvantage to a state of unilaterally imposing fees on its industry.

Fiscal Impact

This proposal will result in significant cost savings. These savings will result from: 1) revenues to be generated by EPA federal level user fee programs, which should amount to at least \$39 million per year (or \$195 million between fiscal years 1994 - 1998) with new revenues ongoing and increasing beyond 1998 -- the \$39 million figure emanates from the OBRA requirement and is based on data provided by EPA to Congress as to the level of fees EPA believes its programs can generate; and, 2) cost savings through reductions in state grants, which would equal \$835 million between fiscal years 1994 - 1998

The revenues generated as a result of the \$39 million annually OBRA requirement are already accounted for in the President's budget. Therefore, in order not to double count those revenues, they do not appear in the following fiscal impact table. The following table represents only those savings that will be generated through the reduction in state grants.²

FISCAL IMPACT TABLE

	In Millions of Dollars				
	1994	1995	1996	1997	1998
Budget Authority	\$0	\$76	\$145	\$307	\$307
Outlays	\$0	\$39	\$95	\$206	\$264
Changes in FTEs	0	0	0	0	0

Endnotes

1. Figures provided by the Office of Management and Budget.
2. Ibid.

INCREASE PUBLIC-PRIVATE SECTOR PARTNERSHIPS TO ACCELERATE THE DEVELOPMENT OF INNOVATIVE ENVIRONMENTAL TECHNOLOGIES

Background

The Environmental Protection Agency's (EPA) National Advisory Committee for Environmental Policy and Technology (NACEPT) has concluded that the nation's potential to improve the environment is directly related to its ability to produce and apply technological solutions. However, NACEPT has also noted that the current rate of technological innovation is less than required; and this is creating a gap between the ability to define risk and target environmental problems and the ability to solve them. The EPA can accelerate the pace of technological development by building stronger partnerships with technology providers and users. The EPA's Technology Innovation and Economics Committee concluded that: enhanced technology programs are essential to the achievement of EPA's mission; EPA should establish the climate, culture, and incentives necessary to encourage widespread use of improved technology; and coordination is lacking between EPA and its potential partners and, thus, EPA should establish stronger technology partnerships. The application of more effective environmental technologies, however, is not just a matter of environmental improvement, for improved technologies reduce the costs of environmental protection, and enhance the competitiveness of the United States in both the domestic and international environmental technology markets. The EPA estimates that the domestic market for environmental technology now exceeds \$150 billion per year; and the world-wide market may exceed \$300 billion per year.

Innovative technologies can play a significant role in cleaning up the environment in many different situations such as: monitoring/site assessment situations to determine the degree of contamination at a site; remedial situations used to clean up a site; pollution control, otherwise known as "end-of-pipe" cleanup; recycling; and pollution prevention where a process or product is designed/redesigned to eliminate production of pollutants. In the long run, innovative pollution prevention technologies will have the biggest impact on environmental protection, cost effectiveness, and on global competitiveness. Designing and redesigning manufacturing processes to produce a better product and one that is designed for the environment, commonly called a "green" product, will be the more competitive

product. One example of such a product is that produced by the Energy Star program, where the major computer companies joined with EPA to design computers that use less energy and, thereby, contribute to the release of fewer pollutants at power generation facilities. The Energy Star program, according to information supplied by EPA, has been expected by some estimates to save up to two percent of the nation's energy costs by the year 2000. According to EPA the early demand for energy saving computers appears to be very high, and this should give domestic computer designers and manufacturers a lead over foreign competition in the sale of these computers.

The economic importance of improved technology to cleanup existing environmental waste and prevent the future manufacture of such waste, is demonstrated by examining the cost to the American taxpayer of site remediation only in those Superfund National Priorities List (NPL) sites already identified. According to recent EPA estimates, the average cost to cleanup one NPL site is \$27 million, and EPA estimates it will cost a total of \$16.5 billion to cleanup just those NPL sites already identified. Thus, partnerships between EPA and industry are necessary to develop more cost-effective solutions, through innovative technologies, that is, those that look promising but may lack the cost and performance data necessary to support routine use. The President's budget proposes an Environmental Technology Initiative (ETI) for the next five years. According to the Office of Management and Budget (OMB) and EPA, the ETI proposed \$620 million (\$36 million for fiscal year 1994) in increased funding for technology development. However, much of this money would be in the base budgets of other agencies, according to both EPA and OMB, which would require EPA to create partnerships with these agencies to fully advance the innovation of environmental technologies. Therefore, EPA needs to leverage its limited resources to spur industry to participate with EPA as full partners in environmental technology innovation.

Recently, EPA started a unique public/private partnership program in site remediation. A Cooperative Research and Development Agreement at McClellan Air Force Base in California was developed under the provisions of the Federal Technology Transfer Act. The project's goal is to evaluate the use of innovative technologies for contaminated soil and ground water -- such as soil vapor extraction with innovative off-gas treatment,

two-phase vacuum extraction, and bioremediation -- as alternatives to established technologies such as incineration. The project was initiated under a grant from the EPA Technology Innovation Office. A non-profit organization, Clean Sites, Inc., of Alexandria, Virginia, is facilitating this partnership between the Air Force, EPA Region 9, the California EPA, several private companies (AT&T, Beazer-East, Dow, Dupont, Monsanto, Southern California Edison, and Xerox), the EPA Risk Reduction Engineering Laboratory, and the EPA Office of Federal Facility Enforcement.

The preliminary cost estimate for the McClellan project is \$2.3 million. According to the cost-sharing agreement, \$1.5 million is already appropriated to the U. S. Air Force for cleanup at the base, EPA's share is \$700,000, and the private companies have agreed to contribute \$84,000. A McClellan model expanded to other projects would enable EPA to leverage limited resources to promote innovative technologies, cleanup the environment, prevent pollution, and produce economic improvement in the United States and internationally.

If this model is successful, and generates other such models, the revenue implications, according to the EPA Technology Innovation Office, are important because: there is a marketing incentive/advantage for firms whose technology is demonstrated; new products create new jobs; most technology development is occurring at small to medium size firms that employ 50 people or less (firms that can benefit from the opportunities to demonstrate performance provided by these kinds of projects); and competitive technologies in remediation and pollution prevention can be exported.

While the implications cannot be calculated with certainty, examples of past successes in technology innovation show the economic benefits to be gained. In February 1993, EPA issued a summary report on its Superfund Innovative Technology Program, noting that innovative technologies used in remediation can save the government as much as 68 percent of the money that would otherwise be used with existing technologies. In EPA's Region 5 between 1987 and 1990, seven NPL sites underwent remediation with innovative technologies. The projected cost to the federal government under then existing technology was about \$225 million; however, the use of innovative technologies accomplished the cleanup for a cost to the government of \$85 million, or a savings to the taxpayer of \$140 million. As noted, it is expected that EPA will need about \$16.5 billion

for its share of remediation of existing NPL sites. If, in fact, innovative technologies could be applied to many, or most, of these sites, there is a potential reduction in cost to the taxpayer, based on the Region 5 experience, of as much as \$11.2 billion, or 68 percent of the total needed.

There is also an economic benefit to private industry, and ultimately the taxpayers, because of the success of innovative technologies, whether in site remediation, pollution control, or pollution prevention. For instance, a pollution control partnership between the EPA, the Tennessee Valley Authority, and private industry, is field testing an innovative sulfur removal device that can replace flue gas scrubbers. If successful, savings for industries could exceed \$1 billion per year according to EPA, and this does not include the economic gain from selling the technology both here and abroad. Innovative technology can also benefit small business. The EPA assisted a small manufacturer of orthopedic devices to switch from TCA (a halogenated solvent that negatively impacts the ozone layer) to a diluted terpene-based cleaner. The product is now cleaned in an ultrasonic bath with the cleaner to remove grease from the parts. The new cleaning system is saving the business about \$4,800 per year; according to EPA it cost the business about \$1,800 to implement the innovation.

Aside from the economic benefits detailed above, the importance of this project, or future similar projects, to cleaning up the environment cannot be overestimated. Environmental technologies are often extremely difficult to develop and test in a laboratory setting. Possible solutions conceived from a laboratory setting must, therefore, be evaluated outside of the laboratory, in a real-world environment. However, attempting to develop and test innovative technologies outside a laboratory setting creates a risk for those testing the technology, that is, the technology may not work the way it was planned, exposing technology implementers to financial liability. The McClellan partnership is based on risk-sharing by government and industry, an essential element to encourage first uses of innovative technology.

The governors of several western states have already recognized the economic and environmental benefits of such a model program. They have developed an action plan, working with the Departments of Defense, Energy, and Interior, and the EPA, to implement similar programs in partnership with industry. The Governors have cited the McClellan

project as a recent and emerging effort to serve as a model for their proposal.

The EPA has indicated that it is looking for other possible Federal installations to use the McClellan model; and has advised it is examining possible ways to expand this to non-Federal sites. It has provided \$700,000 to Clean Sites, Inc., to facilitate a series of these public/private partnerships.

Recommendations

1. The Environmental Protection Agency should develop an action plan with specific milestones, by June 30, 1994, for improving the regulatory and statutory climate for innovative technologies. The plan should identify existing barriers to innovative technology development; recommend new approaches for writing regulations; and establish policies and procedures to facilitate permitting for innovative technologies. Such a plan would encourage the introduction of innovative environmental technology. After the action plan is completed it should be tested as a pilot program involving innovative approaches to permitting to encourage development of new environmental technology.

A special team, to be established by June 30, 1994, consisting of permit writers from EPA and the states, should implement the action plan by initiating 20 permit reviews. These reviews should begin by September 30, 1995. The reviews would determine whether the permits could be changed or modified to allow the use of more innovative technology to accomplish the environmental mandate dictated by the permits. This would demonstrate what works, and what does not work, from the action plan, and may require changes in the plan; or may result in recommendations for statutory change.

2. The Environmental Protection Agency should establish a small business center as a pilot program to expand the technology options available in the market place by helping these businesses obtain financing for new technologies. The center would provide the support to accomplish this objective by identifying environmental business opportunities, developing a business plan, providing marketing information, and identifying funding sources. Assistance would be provided to 10 small businesses from this center by September 30, 1994, and to another 10 by September 30, 1995.

3. The Environmental Protection Agency should develop and promote a series of

monographs to assist industry in identifying pollution prevention opportunities and making informed, responsible design choices. These monographs should include information on specific industry processes, products, and systems in the areas of comparative risks, performance, and costs including environmental costs. The monographs, describing the use of analytical tools, including full cost accounting systems, and substitute assessment analytical tools, will be completed by September 30, 1994. A pilot program in a selected industry will be completed by September 30, 1995.

4. **The Environmental Protection Agency should establish five partnerships similar to the McLellan Air Force Base model to expand available sites where developers and vendors can test and evaluate their technologies. Two of the partnerships should be established by March 31, 1994, and three more by December 31, 1994. These partnerships would help EPA leverage its limited resources to promote innovative technology development by industry.**

5. **The Environmental Protection Agency should establish an environmental technology performance verification program by September 30, 1995, to evaluate and validate the claims of environmental technology vendors.** Under this program, EPA would designate an independent group, with the assistance of the National Institutes of Standards and Technology, to perform the assessments. These assessments would be similar to those conducted by Underwriters Laboratories for electrical equipment. The program would provide users, financiers, EPA, and others with consistent and credible protocols and testing data, and independent review and verification of performance claims. Protocols for the first technology applications would be developed by September 30, 1996.

6. **The Environmental Protection Agency should establish five partnerships with different industries to reengineer common products and processes in order to promote environmentally cleaner manufacturing processes.** The purpose of this effort would be to reduce the use of hazardous materials and eliminate or reduce toxic releases during production release and disposal. The first two of these partnerships should be established by September 30, 1994. Another partnership involving computer CAD/CAM design for environmental choices should be established by December 31, 1994. Two additional partnerships for re-engineering common products and processes should commence by September 30, 1995.

Implications

Implementation of these recommendations would result in a cleaner environment, and industry and the taxpayers would save money. The potential also exists for the creation of new industries, or expansion of existing small industries, as new technologies are developed. Also, exportable technology would be produced, putting the United States in a better position to compete internationally in the growing environmental technology market. However, environmental citizen groups or organizations, if not properly advised as to the benefits of these recommendations, may oppose them through litigation because of the perceived environmental risk of experimenting with technologies that have not been field-tested.

Fiscal Impact

This proposal is cost-neutral, as funds necessary to cover this proposal have been requested in the fiscal year 1994 budget. The EPA plans to implement a scaled-down version of this proposal with existing innovative technology funds if the full fiscal year 1994 budget request is not granted.

Creating a Quality Management Culture

EPA MUST EXERT NEW LEADERSHIP THROUGH MEASURABLE GOALS, PERFORMANCE STANDARDS, AND STRATEGIC PLANNING

Background

Historically, the Environmental Protection Agency (EPA) has targeted its activities towards the implementation of a broad range of statutes and related regulations. These were developed incrementally as major national environmental problems were identified. In response to the ever-increasing statutory mandates, the agency has focused more on implementing statutes and less on achieving measurable environmental results.

The agency has also pursued a media-specific approach to pollution control that ignores connections between air, water, and waste. The basic approach has been one of "command-and-control." This approach often addresses environmental issues in a way that transfers pollution among various media rather than eliminating it. Though "command-and-control" has resulted in significant environmental improvements over the past twenty years, other mechanisms must be developed to address the complex, multi-media, environmental problems our country faces today.

Over the past few years, the agency's strategic planning process has begun to take hold, but it is still ineffective in directing EPA's resources and implementation in an optimal manner. There is a growing need to link strategic planning with budget formulation and implementation efforts. Achieving this linkage would allow the agency to aim for measurable environmental goals rather than incremental additions to practices of the past.

The need for strategic planning and performance measurement has been recognized government-wide, and will receive active support from the current Administration. The Government Performance Act of 1993, commonly referred to as S. 20, has become law. This Act requires the Office of Management and Budget (OMB) to designate 10 agencies as pilot projects in planning, measuring, and reporting performance by fiscal year 1994. By September of 1997, each agency will submit to the OMB and Congress a strategic plan that will set measurable goals, direct agency activities and resources, and identify progress towards objectives.

As its responsibilities continue to grow in a tight fiscal climate, EPA must maximize its opportunity to direct environmental change. A strategic planning process that emerges from broad based participation and continual assessment of results will be the vehicle for transforming agency direction over the coming years. The plan will be a living document that guides strategy and implementation on an annual basis, and provides the criteria for measuring progress. It will provide the context to link resources to activities and activities to environmental results--a wise approach to management and a basic reporting requirement under S.20. As these strategic plans are developed, current management practices and delivery systems need to be reassessed and revised where needed to efficiently deliver the agency's services. Building appropriate incentives for headquarters, regions, states, and industry to participate in the process will be an important component of reinventing EPA.

Clarification of EPA's roles and responsibilities in the larger environmental community will guide stakeholders in determining their own function in the country's overall green agenda. Many federal agencies contribute to environmental problems that others are charged with correcting. Opportunities for working together to avoid such inefficiencies must be seized. Existing relationships must be reexamined to ensure maximum effectiveness in targeting the nation's natural resources. EPA needs to take a lead role in establishing a national environmental strategic planning process and an implementation program to go with it.

Intra-agency partnerships can provide innovative approaches in establishing multimedia strategies for environmentally sensitive areas around the nation. Focusing on specific geographic regions will provide a practical means for the current structure of media-specific programs to integrate their resources and implementation. Such cooperative activity should yield long-term working relationships and reveal potential changes in organizational structure.

Recommendations

1. **By April 1994, the Environmental Protection Agency should draft measurable environmental goals for the range of environmental problems the U.S. faces. Their development must be done in the context of long-term environmental and economic**

sustainability with direct involvement by appropriate federal agencies as well as broad based discussions with states and the public.

2. **By January 1994, the Environmental Protection Agency should prepare measurable, internal goals to provide direction for assessing and redirecting existing EPA strategies where needed.** This approach will begin to provide the needed direction for fiscal year 1995 operating plans and the fiscal year 1996 budget formulation process. The broader participation of other federal agencies in setting goals will set the stage to develop integrated strategies and budgets for selected geographic areas of the country.
3. **The Environmental Protection Agency must develop performance measures for selected goals and strategies as a pilot for reporting requirements for the Government Performance and Results Act of 1993.** That effort should be fully integrated with the Agency's financial management planning, including the development of environmental performance measures, under the Chief Financial Officers Act of 1990.

Implications

Although these proposals are broad in scope, they encompass a core issue that will determine the agency's overall success in establishing and addressing this country's environmental agenda in the future. The Administrator must be prepared to take an active role in leadership within the EPA and across other agencies at the national and state levels. If this agenda is not actively pursued and priorities not carefully selected, EPA will experienced diminished effectiveness in realizing its mission.

Fiscal Impact

This proposal is cost neutral. There are no additional costs above current operating budgets within EPA.

REFORM ENVIRONMENTAL PROTECTION AGENCY'S CONTRACT MANAGEMENT

Background

Since its inception in 1970, the Environmental Protection Agency (EPA) has become increasingly reliant on contractors. Contract obligations have increased from \$600 million in 1986 to approximately \$1.4 billion in 1992. Currently, the agency has some 700 active contracts serving nearly all program areas, including information systems development, pesticide testing, and Superfund site clean-ups.

Three main reasons underlie this contractor dependence. First, contract use provides EPA with a wide array of specific technical expertise on a short-term basis, allowing the agency to forgo long-term hiring commitments. Second, fiscal constraints, coupled with an increase in Congressionally mandated responsibilities, have forced EPA to use outsiders. Over the years, the agency has not received essential employees needed to fulfill its missions, but it has been successful in getting contract dollars, perhaps because contract work can be paid out over several years rather than through annual salaries required for federal workers. Finally, contract use is sometimes explicitly mandated by law, as in the legislation governing Superfund site clean-up.

Excessive dependence on contractors, and the inadequate oversight associated with it, has brought EPA continual criticism. During the last four years, agency contract management practice has come under the scrutiny of numerous General Accounting Office and Inspector General reports, as well as several Congressional hearings. EPA has long focused on its central mission - environmental protection - and not on strong contract management, but the recent criticism has led the agency to carefully analyze its current infrastructure and to target specific areas for major improvement. Contract management was declared a material weakness in the agency's December, 1992 letter on internal controls to the President as required by the Federal Manager's Financial Integrity Act (FMFIA).

Improving contract management practices at EPA entails an analysis of several issues, such as resources, contractor-contractee relations, and accountability. With respect to resources, EPA does not have enough personnel with the technical knowledge needed to

evaluate contractor performance. Though roughly 27,000 work-orders are delegated annually under agency contracts, each requiring comprehensive attention, only 5,000/6,000 managers exist to handle the load--despite the fact that EPA's contract management program has increased by 237 percent since 1981, while the agency's overall work force has grown by only 25 percent during the same period.

Since the funds to bolster oversight resources by hiring are nonexistent, EPA is actively searching for opportunities to free full time equivalents (FTEs) for contract management. The agency is also addressing the problem through other means: its Standing Committee on Contracts Management, formed to review the entire contracting process, recommended several relevant proposals in its June, 1992 report. These include highlighting contract management in agency vacancy announcements, and placing a heavy emphasis on improving the quality of oversight resources currently in place (see following sections for details). Doing "more with less," however, can only go so far, and if EPA's responsibilities continue to multiply, it must match improvements in contract management with a commitment to shrink its dependence on outside help.

Additionally, massive use of contractors has engendered problematic ties between EPA and the non-governmental firms to which it turns for assistance. The greater the agency's reliance on outsiders, the greater the propensity for those outsiders to be co-opted into EPA culture, blurring the critical line separating a federal agency from the private sector. The transformation of a formal contractor-contractee relationship into the more cozy interaction between employer and employee risks several deleterious implications. Contractors may begin to perform inherently governmental functions, such as payroll review or attendance at classified meetings. Incumbent firms may receive an unfair advantage when their contract comes up for renewal. Perhaps most damaging of all, agency oversight may become lax, leading to vague work instructions, nebulous lines of authority, and compromised individual responsibility. Such abuses have been concretely documented, as in the March 31, 1992, Inspector General audit of EPA's relationship to the Computer Sciences Corporation.

Excessively close ties between the agency and its contractors also open the way for flagrant conflicts of interest. This issue has emerged frequently regarding the Superfund

Program, where the possibility of delegating clean-up duties to a firm implicated in the initial pollution raises obvious concerns. The conflict of interest risk is particularly worrisome because current federal regulations require contractors to self-police, a process which does not adequately safeguard against abuse.

To restore formality and credibility to its relations with contractors, EPA has pursued a multi-tiered approach. The agency's own Standing Committee has suggested five specific, complementary steps:

- (1) Implement performance standards for contract management, complete with an awards program, to foster awareness and accountability throughout the agency.
- (2) Encourage better contract planning through new requirements for annual acquisition strategies.
- (3) Provide written guidelines wherever possible to facilitate reliable contracting, such as in preparation of Independent Government Cost Estimates or in FMFIA assessments.
- (4) Assemble a quality contracting team pilot, composed of a Procuring Contracting Officer, an Administrative Contracting Officer, a Project Officer, an Office of General Counsel Representative, and any needed specialists, to monitor a contract from its inception to closeout.
- (5) Inject competition into the contracting process by distributing multiple contracts with the same work statement to different vendors. This would guarantee a constant alternative to the incumbent, and promote continuing competition to meet agency standards even after contract award.

These measures reappear in EPA's response to a March, 1993 audit of agency contract policy by the Director of OMB. That response also calls for OMB to give EPA authority over its intramural/extramural budget distribution as a way of empowering the agency to reform its dealings with outsiders.

Though the recommendations of both the Standing Committee and the OMB review should unequivocally improve EPA contract management process, they leave some difficult issues unaddressed. Foremost among them may be the agency's fundamental over-reliance

on outside help, and the blurring it promotes between contractor and contractee. If EPA's burgeoning responsibilities are continually met by increasing dependence on non-governmental resources, the propensity for a culture of informality to develop in relations with the private sector will grow accordingly, and no degree of quality management will deny the greater difficulty of preventing abuse. Administrator Carol Browner has begun to grapple with this quandary by ordering an independent analysis of the agency's use of intramural/extramural resources--to determine, among other things, whether EPA's current distribution of dollars best serves its mission. Ms. Browner has also pledged to spearhead reform in agency culture by emphasizing that management and accountability will be cornerstones of her administration.

With respect to accountability, EPA has failed to hold both contractors and its own personnel accountable for fiscal and legal discrepancies. On the fiscal front, due to inadequate financial management resources government-wide, there have been blatant indirect costs abuse by outside firms. Indirect costs, those charges not immediately related to specific work orders, include utilities, office rent, administrative salaries, health insurance costs, and an array of similar items. These expenses are generally stated as a percentage of direct labor. Certain costs - alcoholic beverages, for example, or customized chocolates imprinted with the company logo - are unallowable. Inspector General audit reports disclosed just these violations by EPA contractor CH2M Hill in 1992.

In a different sphere, the agency itself has not held its personnel accountable to the legal requirements delineated by the Business Opportunity Development Reform Act of 1989. This legislation requires competition among 8(a) contractors for procurements with an estimated value above \$3 million. Recent Inspector General audits of EPA's Office of Research and Development laboratories have found instances where requirements were split and government cost estimates understated to stay under the \$3 million threshold, thus avoiding competition. The result has been incumbent favoritism, with all of the negative ramifications that it implies.

EPA has confronted these problems through several tacks. Many of the aforementioned recommendations of its Standing Committee, such as the establishment of performance standards and quality contracting teams, address the accountability issue

holistically. The Committee's proposal to tighten indirect costs recovery with the assistance of OMB represents a more focused response, as does EPA's participation in the SWAT Team Project. This effort, launched by the Office of Federal Procurement Policy (OFPP) in the summer of 1992, challenged internal auditors in 12 civilian agencies to find unallowable expenses in contractor claims, and to determine the frequency of negotiated settlements disallowing the costs. EPA's report to OFPP contained 41 agency-specific findings and 38 government-wide: a total of 79 recommendations which accounted for one third of proposals received from all 12 organizations. Agency action on its internal findings is nearing completion. On a final front, Administrator Browner's initiatives, particularly her program to establish Senior Resource Officials (SROs) responsible for fiscal and ethical management, should substantially support her pledge to restore EPA accountability.¹

The agency's tripartite response to its accountability deficit, based on proposals from the Standing Committee, SWAT team, and the Administrator, should ameliorate much of the abuse prevalent thus far--if they are integrated and implemented. A familiar caveat remains, however, concerning EPA's long-term prognosis: if the agency's growing responsibilities are met with an increasing reliance on contractors, enforcing accountability will only become more of a challenge.

Recommendations

1. **The Environmental Protection Agency should fully implement performance standards for contract management advocated by the Standing Committee, the Panetta Review, and the Administrator by January 1, 1995.** Contract management awareness and accountability should be strengthened through the agency performance standard and evaluation process. Individual performance standards for contracts management should be one of several human resources management mechanisms that directly support the integration of resources management into the priorities and responsibilities of staff throughout the agency. Others include highlighting contracts management in job announcements and position descriptions, providing better training opportunities, and promoting a more definitive disciplinary penalties and awards program. Since so much of EPA's staff is involved in contracts management, the human resource

mechanisms are a primary means of assuring accountability. Taken with other agency contract management improvements, these changes should be evaluated overall in terms of how the Agency has improved its ability to manage contracts.

2. EPA should institutionalize the oversight recommendations of the Standing Committee, the Panetta Review, and the Administrator by January 1, 1995. EPA should evaluate the success of the agency's quality contract team pilot to determine how well the contract was managed, costs were controlled and goods and services were rendered or called for by the contract. If the quality contract team proves to be more effective, begin implementing it throughout EPA by the end of fiscal year 1994, with the condition that all team members be in-house agency personnel. Supplement this program by placing the Senior Resource Officials advocated by Administrator Browner throughout EPA by the end of fiscal year 1994. Ensure that each of the agency's 10 regional offices has at least one SRO, and make this official accountable for ethical, effective extramural resource management in the region.

3. EPA should maximize competition in the contracting process. Continue to promote all agency contracts to competitive bidding. Evaluate the agency's pilot program to award multiple contracts with the same work statement to different vendors (a strategy which functions by farming out individual delivery orders and assignments to competing outsiders). The contracts will be awarded by the end of the fiscal year 1994. At the midway point of the three year contract, the agency will assess its effectiveness. If the pilot project is found to yield net savings when compared to the traditional practice of employing single contracts for a project's entirety, consider implementation by end of fiscal year 1996.

4. The Office of Management and Budget should provide EPA with more flexibility in determining the appropriate balance of extramural versus intramural resources. The Agency is currently undergoing an independent analysis to identify this balance. Once an appropriate balance is identified, the agency will begin converting contractor dollars to FTEs to better achieve that balance.

Implications

Better contract management and oversight should result in significant contract dollars and improved contract services from a more competitive contracting process. There is an immediate need to help identify the balance between intramural and extramural resources. FTEs made available through efficient contract management could address this task. There is a long term need to convert contractor dollars to FTEs. These FTEs could be targeted towards meeting the Agency's mandates and eliminating improper use of contractual resources.

Fiscal Impact

According to EPA, this proposal is cost-neutral.² Additional FTEs needed to provide oversight and management of contract work that is currently done by contractors will be obtained from other organization units through agency streamlining efforts.

Endnotes

1. Administrator Browner's Testimony before the Subcommittee on Oversight and Investigations. March 10, 1993.
2. Data provided by the Environmental Protection Agency's Budget Office.

REORGANIZE EPA'S OFFICE OF ENFORCEMENT

Background

The enforcement program at the Environmental Protection Agency (EPA) is responsible for bringing parties who are violating the nation's environmental laws into compliance, preparing and litigating cases against these parties, and helping to forge effective responses to harmful environmental conditions. Reorganization of EPA's enforcement operation represents an excellent opportunity to achieve efficiencies in government.

Early in the Reagan Administration, EPA reassigned and separated the EPA enforcement responsibilities. EPA placed the environmental compliance engineering and inspections staff, who provide the technical expertise necessary to ascertain whether a source is in violation, into the individual media-specific program offices (Air, Water, Solid Waste, and Toxics). In addition, EPA placed the legal enforcement staff into a separate Office of Enforcement. The regional enforcement divisions were also abolished. This decentralized and limited the coordination and management of environmental enforcement within the agency.

The organizational structure created in 1981 continues to define the shape of EPA enforcement today. Presently, there is no centralized authority vested in any one Assistant Administrator for targeting, priority setting, and development and management of enforcement resources. In fact, enforcement priority setting is currently shared by five assistant administrators and ten regional administrators.

As a result, enforcement has not been a sufficiently high priority for any of the program offices at EPA headquarters, which have conflicting priorities--such as permitting and regulation development. In addition, persons at all levels of the agency must be tied into protracted and frequently repetitious consultations over enforcement priorities and implementation plans. For example, the development of a single enforcement initiative typically involves extensive discussion with six different EPA program offices. This situation is not only frustrating to personnel within EPA, but recently caused the Assistant Attorney General for Environment and Natural Resources, United States Department of

Justice, (DOJ), to ask for a single point of contact at EPA for enforcement issues.

In addition, the present system adversely affects EPA's ability to address multi-media environmental problems, which are those problems that affect more than just one medium, such as air, water, or land. Specifically, it is difficult to develop comprehensive enforcement responses to facilities which are in violation of more than one federal statute. The current enforcement structure has thwarted EPA's ability to implement multi-media enforcement, a top priority of the Clinton Administration.

The current structure also results in parallel, oftentimes duplicative processes. For example, each case and policy matter typically undergoes parallel review and analysis up through the office director level in both the Office of Enforcement and in related program offices. In the event of disagreement, ultimately only the Administrator and the Deputy Administrator are empowered to resolve these enforcement disputes. Recently, it took over nine months, and the personal involvement of the Administrator, to resolve a disagreement between the Assistant Administrator for Water, a Regional Administrator, and the Assistant Administrator for Enforcement concerning the proper enforcement response to a violation of the wetlands regulations. The dispute was eventually resolved but only after an extraordinary delay, and enormous investments of time by top agency officials. The delay produced adverse press coverage as well.

Besides being inherently inefficient, this system permits "forum shopping" on significant issues. By going directly to a program office to discuss an enforcement issue, outside parties (including regulated sources) can effectively try to play one EPA office against another.

Simply stated, there is no single enforcement voice in the agency. This results in a de-emphasis on enforcement, high transaction costs, duplication of effort and an inability to effectively pursue multi-media enforcement. This problem should be rectified.

On July 22, 1993, Administrator Browner announced that she intends to consolidate and reorganize EPA's enforcement resources at headquarters. To implement this, she has created a task force which will develop a plan to be implemented by October 1, 1993. A consolidated structure will eliminate duplicative review chains, force issues to final resolution much lower in the management chain, and eliminate forum shopping.

Reorganizing headquarters enforcement will improve the way EPA does its business.

Recommendation

Initiate the Administrator's headquarters enforcement reorganization proposal by October 1, 1993. This will bring the various EPA enforcement operations together under the Office of the Assistant Administrator for Enforcement. Within one year, it is anticipated that a reorganized Office of Enforcement (OE) will:

- eliminate duplication of effort, thereby maximizing the government's environmental enforcement efforts;
- restore accountability to a presently fractured system;
- provide a single voice on national enforcement priorities, thereby eliminating mixed and conflicting signals between headquarters, the regional offices and the states;
- position the agency to respond to cutting edge issues and vulnerabilities, such as environmental justice, multi-media enforcement capacity, penalty practice, measuring program success, and enforcement data integration; and,
- enhance agency efficiency and promote cost effectiveness.

Implications

In a time of flat or declining resources and a nearly unmanageable case docket, EPA can no longer afford the inefficiencies of the current organizational framework for enforcement. Reorganization would enable EPA's Office of Enforcement to more effectively identify and respond to national environmental problems, including targeting companies that consistently violate the law, addressing sources that are responsible for ecosystem destruction, and addressing pollution problems that affect minority and low income populations. A reorganization will demonstrate the Administration's commitment to eliminate duplication and waste in the federal government and will leave EPA's enforcement apparatus stronger and more responsive to the priorities of this Administration.

Fiscal Impact

This issue will require no expenditures. Reorganization will produce a net savings by streamlining enforcement operations, and will free up significant resources, which can be used in other areas throughout EPA.

FISCAL IMPACT TABLE

	In Millions of Dollars				
	1994	1995	1996	1997	1998
Budget	\$0	\$0	\$0	\$3.5	\$3.5
Authority					
Outlays	\$0	\$0	\$0	\$3.3	\$3.5
Changes in FTEs	0	0	0	46	46

Now is the Time

SHIFT THE ENVIRONMENTAL PROTECTION AGENCY TOWARD POLLUTION PREVENTION AND AWAY FROM POLLUTION CONTROL

Background

The Pollution Prevention Act of 1990 establishes a bold national objective for environmental protection: "[T]hat pollution should be prevented or reduced at the source whenever feasible."¹ The Environmental Protection Agency's (EPA) Science Advisory Board has strongly recommended that pollution prevention be emphasized as the preferred means of reducing risk, explaining that: "Preventing pollution at the source -- through the redesign of production processes, the substitution of less toxic production materials, the screening of new chemicals and technologies before they are introduced into commerce, energy and water conservation, the development of less polluting transportation systems and farming practices, etc. -- is usually a far cheaper, more effective way to reduce environmental risk, especially over the long term."²

EPA has defined pollution prevention as "source reduction," as that term is explained under the Pollution Prevention Act, as well as to mean protecting natural resources through conservation or increased efficiency in the use of energy, water, or other raw materials. Pollution prevention is not the only strategy for reducing risk; rather, it is the preferred one. Environmentally sound recycling shares many of the advantages of prevention--it can reduce the need for treatment or disposal, and conserve energy and natural resources. Where prevention or recycling is not feasible, treatment followed by safe disposal as a last resort will play an important role in achieving environmental goals.

When EPA was created in the early 1970s, its work focused first on controlling and cleaning up the most immediate problems. Those efforts have yielded major reductions in pollution. Over time, however, analysis has shown that traditional end of pipe approaches not only can be expensive and less than fully effective, but sometimes transfer pollution from one medium to another. Additional improvements to environmental quality will require EPA to move upstream to prevent pollution from occurring in the first place.

Preventing pollution also offers important economic benefits, as pollution never created avoids the need for expensive investments in waste management or cleanup. For example, a leading environmental research group, INFORM, Inc., found in its recent study

of 29 chemical plants, *Environmental Dividends: Cutting More Chemical Wastes*, that 15 percent of the 181 source reduction activities identified resulted in annual dollar savings of \$1 million or more annually. Nearly half saved between \$45,000 and \$1 million annually, more than one quarter saved between \$6,000 and \$45,000 each year. Only one out of all 181 source reduction activities documented reported a net cost increase. Pollution prevention has the exciting potential for both protecting the environment and strengthening economic growth through more efficient manufacturing and raw material use.

An effective pollution prevention strategy must reflect the complex and multiple array of factors that motivate the private sector to invest in cleaner, less polluting technologies and practices. These factors include: regulations and compliance, state and local partnerships, private partnerships, federal partnerships, public information/the right-to-know, and technological innovation.

Regulations and compliance play an integral part in carrying out pollution prevention. The report by INFORM, Inc. documented the critical role that both existing and anticipated future regulations play in providing an incentive to eliminate waste at the source. Federal and state experience with multi-media inspections and enforcement settlements demonstrate that effective compliance strategies can accelerate the introduction of new technologies. The recent decision to reorganize the Office of Enforcement creates major opportunities to focus on multi-media compliance strategies.

EPA regulations, permits, inspections and enforcement actions need better coordination to minimize the cross-media transfer of waste and to more effectively reduce waste at the source. The Source Reduction Review Project, through which EPA is attempting to coordinate different rules affecting 17 key industrial categories, is a good start in the right direction. Regulations and compliance strategies must focus on the whole facility, rather than a disjointed collection of single-media endpoints.

State and local partnerships will be an important factor in determining the success of pollution prevention. Increasingly, state and local governments are the "face of government" for the general public. States have also proved to be excellent sources of innovation, promoting pollution prevention through both compliance and technical assistance programs. For example, the State of Massachusetts won a national award from

the Ford Foundation for the Blackstone project, which combines multi-media inspections with effective delivery of technical information to industries trying to find cost-effective methods of compliance.

EPA disburses over \$500 million per year to states that have been charged with implementing federal law under authority delegated by EPA. It is critical that EPA follow up on its existing commitment to provide states with flexibility to use such funding to find innovative ways to carry out these responsibilities. In particular, EPA must offer more flexible approaches to funding state implementation efforts to reward innovation and emphasize results.

Private partnerships is yet another key to achieving pollution prevention. Collaborative efforts with industry or public agencies in many cases can help achieve results through pollution prevention more quickly than could be obtained through regulation alone. For example, EPA's Green Programs to promote voluntary energy efficiency will play a critical role in achieving obligations under the U.S. Action Plan to stabilize greenhouse gas emissions by the year 2000. Another significant role for private partnerships is in the area of funding for pollution prevention efforts. Current lending practices do not necessarily lend themselves to allowing businesses, especially small companies, sufficient access to capital for investments in pollution prevention. The Center for Neighborhood Technology has argued that banks often are unwilling to make environmental loans; EPA can help stimulate this type of lending with information about the relative cost-effectiveness of pollution prevention.

Furthermore, regulations do not often reach the more complicated corporate decisions needed to evaluate design, manufacturing, packaging, distribution and marketing practices to reduce pollution and energy consumption. The Federal Trade Commission has developed standards for the use of specific environmental terms in advertising, but has not reached the more complex questions of environmental claims based on more comprehensive, life cycle analysis. The American National Standards Institute is currently developing positions on these issues, and could benefit from EPA guidance.

EPA needs to expand the scope of programs that encourage industry to go beyond compliance in making measurable commitments to pollution prevention. That will require a

better understanding of the relationship between compliance programs and the achievement of broader environmental goals.

Federal partnerships must also be undertaken to achieve the goals of pollution prevention. President Clinton's Earth Day speech challenged the federal government to, "lead by example--not by bureaucratic fiat." The federal government has a tremendous impact on the environment as the nation's largest landlord and its biggest consumer of goods and services. Accordingly, the President expects to sign an Executive Order by the end of the summer that requires federal agencies to report toxic emissions under the Emergency Planning and Community Right to Know Act, cut toxic emissions 50 percent, and reduce the use of hazardous materials in procurement.

Other federal agencies can create major opportunities for pollution prevention through policies that shape decisions in agriculture, energy, transportation, and the management of natural resources. If pollution prevention is to expand in these sectors, EPA must form partnerships that take advantage of the authority and expertise at other federal agencies. Earlier this year, EPA joined the Food and Drug Administration and the Department of Agriculture in announcing a joint effort to develop a strategy to reduce the use of pesticides that present unreasonable risks. Other countries, including Canada and the Netherlands, have already adopted ambitious programs to cut back on the inefficient use of hazardous pesticides and fertilizers, which can cost farmers many dollars, as well as pose risk to human health and the environment.

A driving force in pollution prevention has been public information and the concept of the "right-to-know." 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. The Toxics Release Inventory (TRI) has proved vital in helping industry to identify opportunities to reduce waste and improve economic efficiency. For example, many state pollution prevention planning laws are based directly on TRI data collected and maintained by EPA. The Pollution Prevention Act, which took effect last year, expands data requirements to include the reporting of chemicals in waste as well as the volume released directly to the environment.

EPA has already committed to expanding the scope of the TRI to include different

chemicals and major sources of emissions not already required to report. To make room for this expansion, EPA could reduce other paperwork requirements that are redundant or of less value.

Technological innovation can serve as the engine which drives pollution prevention. The federal government plays a critical role in funding research in new technologies and in disseminating information about technological options to the private sector. The President's new initiative includes \$36 million in funding for research in new technologies, and anticipates a major expansion of technical assistance through the National Institutes for Science and Technology.

Recommendations

1. **The preamble to each major rule proposed by the Environmental Protection Agency should include a summary of the total, multi-media releases to the environment from the activities that are the subject of the rule.** The analysis should include the estimated impact of the rule on these multi-media releases and the preamble should identify other pending regulatory decisions likely to affect the same industry or industrial category that is the subject of the proposed rule. Having to provide this data will require identification of significant cross-media issues during development of the rule, and will ensure that senior managers do not make significant regulatory decisions in a single-media vacuum. Such data will also provide industry with a more comprehensive picture of the web of regulatory transactions to which it must adjust over the coming years. EPA's performance can be measured according to whether or not it has incorporated this multi-media analysis into significant proposed rules within one year. No significant costs are anticipated.

2. **EPA should use its flexibility -- as it already has for the pulp and paper industry -- to adjust regulatory timetables so that major rules are proposed on the same date.** Integrated rulemaking offers major opportunities to overhaul industrial processes to improve efficiency while reducing transaction costs by satisfying multiple regulatory requirements. Integrated rules can also help lay the groundwork for more

efficient multi-media permitting and inspection strategies. EPA's performance can be measured according to the number of single-media rules it has combined for proposal on the same date. No significant new costs are anticipated.

3. EPA should change existing reporting requirements that create disincentives to multi-media inspections and enforcement actions at both the federal and state level.

For example, EPA's single-media inspection programs require states to report results in conflicting formats and different timeframes. This objective should be addressed as part of the pending consolidation of EPA's enforcement program. EPA's performance can be measured according to whether it has integrated the reporting requirements for state inspections into one, multi-media database by the end of next year. EPA should also be required to keep data on multi-media inspections carried out by the agency and by states pursuant to federal law. Short term costs will be incurred to support training of enforcement personnel and the establishment of an improved data base. Long term savings may be realized from the consolidation of single-media enforcement efforts.

4. EPA should move toward a "block grant" approach providing states with maximum flexibility in the use of federal funds in carrying out responsibilities that have been delegated to the states by EPA. That may require developing "performance-based" measures that allow states the leeway to focus funding on the most significant problems. This flexibility should be exercised within a framework of clear federal objectives established by law (e.g., it is not recommended to create a more general revenue-sharing approach). EPA's performance can be measured initially according to the number of dollars that states have been allowed to invest in multi-media projects under existing grant authority. There are no new costs, since the emphasis here is better use of existing grant funds.

5. EPA should emphasize demand-side management in wastewater grant programs that provides states with incentives to invest funds in water conservation and pollution prevention programs. EPA's performance can be reflected in whether or not new policies are promulgated (by statute or rule) that accomplish the above objectives. Over time, the agency should be able to point to a reduction in pollutant loadings to overburdened wastewater treatment systems as a result of demand side management practices.

6. **EPA should invite a specific industry sector to jointly undertake several projects to evaluate the feasibility of developing multi-media pollution prevention strategies for that particular industry.** The projects should have clear objectives, including relating the pollution prevention objectives to compliance requirements, developing effective measures of performance, and assessing the efficacy of industry codes of conduct (e.g., the Chemical Manufacturing Association's Responsible Care Program). Data from these projects could be extremely useful in strategies that offer industry more flexibility in return for achieving performance based objectives. EPA's performance can be measured initially according to whether these projects have been undertaken (e.g., by the middle of next year). In the long run, EPA should be accountable for incorporating project recommendations into its legislative, regulatory, and compliance strategies. There are significant start-up costs for such projects, but most of these are likely to be borne by industry.

7. **EPA should help focus existing private sector labeling and standards programs by identifying the product categories of greatest concern. In addition, the agency should work with the American National Standards Institute in developing a coherent U.S. position on Eco-labeling and life-cycle analysis.** EPA's performance can be measured according to whether existing private sector groups focus research and labeling efforts on the product categories of concern, and whether ANSI is able to develop an effective position on environmental standards and labeling.

8. **EPA should work cooperatively with the Department of Agriculture, the FDA and other agencies to develop a national strategy to promote more efficient use of pesticides and fertilizers.** The strategy should emphasize priorities, specific goals, and public measures of progress. The strategy should be completed and announced by early spring. Over time, EPA and the Department of Agriculture should be able to measure progress in reducing pesticides and nutrients of concern, and to document the savings to farmers from more efficient farming practices. These goals should be accomplished within existing budgets, but may require significant reprogramming of funds at the Department of Agriculture, because the amount of funding devoted to sustainable agriculture at USDA is still quite small in relation to other priorities.

9. **The EPA should develop a plan for implementing the pending Executive Orders on Pollution Prevention and Recycling, so that it can carry out its role and work jointly with other federal agencies, as outlined in the Executive Orders.** These plans should include deadlines and identify individuals responsible for coordinating the development of the strategy in each agency. Both Executive Orders already include significant measurable goals. The Executive Orders can be accomplished within existing budgets, but will require significant reprogramming of funds.

10. **The federal government should develop lending policies that help make funding available for investments in pollution prevention by small businesses, states, and other borrowers.** These policies should focus on eliminating barriers and advertising the availability of funds for investments that are both economic and environmentally sound. Agencies could be asked to report on the development of such policies, and provide data on the amount and type of funds made available. No new costs are anticipated, since we are not recommending that federal agencies offer premium interest rates for pollution prevention.

11. **EPA should create an integrated database that provides information useful for measuring performance by industry, sector, and facility, and for devising long-term multi-media pollution prevention strategies.** To the extent practical, the data should be public and should be sound enough to be useful in providing alternative, performance-based yardsticks for compliance. In the long run, credible measures of performance are critical to providing industry with the kind of flexibility needed to optimize investments in pollution prevention. The integrated data base should include TRI data, expanded to cover additional chemicals and facilities, and with greater efforts at quality control. It should also include an inventory for measuring, on an industry-wide basis, changes in the use of toxic chemicals and pesticides. To make room for this expansion, EPA should identify and eliminate redundant reporting requirements, or information collection efforts that serve no practical purpose. This integrated data base, if credible, will provide Congress and the public with a better basis for measuring EPA's actual performance in reducing pollution. The costs of establishing this integrated data base are likely to be significant, although some costs (e.g., for TRI expansion) are already reflected in the President's budget. EPA should

coordinate with the Department of Commerce to ensure that this does not conflict or overlap with Commerce's activities in this area.

12. Funds for environmental technology should be earmarked for prevention. The President's budget includes \$36 million across several federal agencies for research in the development of clean technologies. A significant fraction of this budget should be reserved for investments in pollution prevention, with EPA involved in establishing priority areas for investment. Success will be measured in the short term according to how much of the ETI expenditures are actually invested in emerging pollution prevention technologies. Costs are already accounted for in the President's budget.

13. A significant fraction of funds for the Environmental Technology Initiative should be targeted for technical assistance. The Administration should ensure that a significant fraction of new federal funds are used to help provide small businesses with technical assistance for pollution prevention. To the maximum extent practical, the federal government should rely on existing delivery systems -- such as state pollution prevention programs - for the distribution of such assistance. EPA should play a "wholesale" role in developing and packaging materials useful to state and other federal programs, e.g., by providing clear and consistent information about forthcoming regulatory requirements. Performance in the short term can be measured according to the amount of funding made available to help small businesses with investments in pollution prevention. In the long run, EPA and other agencies must evaluate how many businesses made use of the information, and collect data on cost savings. No new costs are anticipated.

Implications

For each of the recommendations regarding regulations and compliance, short-term costs will include money for cross-media training of regulatory and enforcement staff, and for the development of an integrated database that can be shared by different programs. However the long-term payoffs from a coordinated and efficient approach to rulemaking should far outweigh these temporary costs. Perhaps the greatest savings will be for industry, since integrated rulemaking can help reduce transactions costs by eliminating conflicting or overlapping requirements.

Regarding state and local partnerships, providing states with more flexibility to direct existing grant funds toward pollution prevention should not result in any increased costs. In the long run, emphasizing "demand-side management" for municipal water systems to encourage conservation and reduce principal sources of pollution may decrease the need for expensive investments in wastewater treatment. States are likely to welcome the increased ability to invest scarce dollars in activities with a higher environmental payoff.

With private partnerships, the demonstration projects outlined in the recommendations may require some funding to support data collection and analysis, as well as peer review. Industry may be willing to bear most of these costs, if it can reach agreement with EPA on a set of shared objectives. In the long run, these projects should help lead to more efficient approaches to regulations and compliance that offer both government and industry significant cost savings.

With respect to labeling and standards, focusing on product categories of greatest concern will help guide scarce federal and private dollars on the most appropriate research in safe substitutes and clean technologies. Developing a coherent U.S. position on eco-labeling and life-cycle analysis will require a high degree of inter-agency coordination, but no significant new funding.

Implementing a comprehensive agriculture strategy, as part of federal partnerships, may require significant reprogramming of funds at the Department of Agriculture. Similarly, the Pollution Prevention and Recycling Executive Orders may also require reprogramming of funds at other federal agencies. Each of these initiatives is designed to establish goals and measures to focus existing resources on high priority environmental problems.

Under public information, the costs of establishing an integrated database to measure performance and evaluate compliance on a cross-media basis are likely to be significant at EPA (e.g., in the range of \$10 million). These resources will be most effectively spent if they are used to improve and establish linkages between existing databases, such as the Toxics Release Inventory and the Office of Enforcement's IDEA network. Government costs may be offset in the long run by the elimination of redundant reporting requirements

that currently impose data collection and management costs. Furthermore, an integrated database provides the foundation for establishing performance based measures that allow both industry and government to find the most cost-effective alternatives for compliance.

Finally, with technology innovation, the recommendations do not request any new funds, but rather suggest earmarking a significant fraction of the Environmental Technology Initiative budget for pollution prevention research and technical assistance to small business. Investing in new pollution prevention technologies can reduce the cost of environmental protection, and position the United States to compete in the global marketplace. Technical assistance is critical to helping small businesses, which are responsible for most new job creation, meet the cost of complying with the new Clean Air Act and other statutes.

Fiscal Impact

This proposal is cost-neutral.

Endnotes

1. The Pollution Prevention Act of 1990.
2. *Reducing Risk*, Science Advisory Board, the Environmental Protection Agency, 1990.

ESTABLISH A BLUEPRINT FOR ENVIRONMENTAL JUSTICE THROUGHOUT THE ENVIRONMENTAL PROTECTION AGENCY'S OPERATIONS

Background

Pollution is not a problem faced equally by everyone in our society. Minorities and low income communities often face higher exposure to environmental hazards by living near waste sites, by being subjected to harmful chemicals in poorly maintained housing, or through exposure to pesticides in farm fields. In light of the growing importance of this issue, a national policy of environmental justice (the distribution of environmental risks across population and income groups and the policy responses to these distributions) needs to be articulated.

Environmental justice is not a new problem. It was first reported over two decades ago. The problem of environmental justice did not receive national attention until 1982, when officials decided to locate a toxic chemical landfill in predominantly African-American Warren County, North Carolina. Protests similar to those of the civil rights movements of the 1960s erupted. In response to these protests, the Government Accounting Office (GAO) investigated, focusing on the socioeconomic and racial composition of communities surrounding the four major hazardous waste landfills in the South. GAO concluded that three of the four landfills were located in communities that were predominantly African-American.

Since then environmental justice has received more attention. A nationwide study in 1987 found that the proportion of minorities in communities that have a commercial hazardous waste facility is about double that in communities without such facilities. In 1990, Paul Mohi and Bunyan Bryant convened the Michigan Conference on Race and the Incidence of Environmental Hazards. In response to the Michigan conference's findings that no public policies were in place to require monitoring equity in the distribution of environmental quality, the Environmental Protection Agency (EPA) established a working group on environmental equity.

In its June 1992, report entitled *Environmental Equity: Reducing Risk for all Communities*, the working group determined that there was a general lack of information concerning pollution, and minority and low-income communities. There were indications of

problems in siting and in enforcement of pollution generating activities in minority and low income communities. The group concluded that EPA had no specific policy dealing with this issue. In response, EPA established the Office of Environmental Equity to focus on three major areas: Education and Outreach; Community and Economic Development; and Technical and Financial Assistance to community groups.

The National Environmental Policy Act (NEPA), passed in 1970, sets forth an environmental policy for the nation. Specifically, NEPA states that:

... it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.¹ (emphasis added)

In her statement before the House Government Operations Committee on May 6, 1993, Administrator Carol Browner affirmed the need to address environmental justice:

... as we undertake programs to reduce risks, we must explicitly recognize the ethnic, economic, and cultural makeup of the people we are trying to protect. We now believe that people of color and low income are disproportionately affected by some environmental risks; the risk of living near landfills, municipal waste combustors, or hazardous waste sites; the risks posed by lead or asbestos in old, poorly maintained housing; the risk of exposure to pesticides in farm fields; and the risk of eating contaminated fish when fish is a mainstay of their diet.²

There are large environmentally-related health costs associated with minority workers and low income communities. For example, studies have shown that migrant farm workers suffer from neurological disorders, cancer, and birth defects at a higher rate than the normal population. Another example is lead. EPA has stated that lead in gasoline is a major cause of poisoning in young children. Researcher Dr. Joel Schwartz describes the problem in understandable terms: "An urban child who licks her finger after running it across a table left undusted for several days can consume several times the safe daily dose of lead." Although there have been no definitive studies on the overall health costs to

minority workers and low income communities, there is general agreement that related health care costs could be quite high. The United States' taxpayer, not private insurance companies, pays the additional health costs incurred to the many minority and low income communities affected by environmental factors.

Administrator Browner has made environmental equity one of four key policy themes in her administration. The President's fiscal year 1994 budget contains an additional \$15 million to address lead paint hazards, a particular hazard for minority children. The administrator has moved to establish an interagency group to address environmental justice issues across all federal agencies. EPA is working with federal health agencies to strengthen the scientific and health effects data related to communities of color and those of low income, and EPA has initiated three environmental justice projects with the Department of Justice, one which will be used to establish enforcement priorities.

The Congress has also shown a strong interest in environmental justice. In pending EPA cabinet legislation (H.R. 2105) there are numerous provisions regarding environmental justice. In May 1993, Representative Lewis (D-GA) introduced a separate bill, the Environmental Justice Act of 1993. This bill would require EPA to publish a list of geographic areas with the highest amounts of toxic chemicals. It would require EPA to inspect all toxic chemical facilities operating in Environmentally High Impact Areas (EHIAs) and impose a moratorium on the siting of new chemical facilities in EHIAs. On June 24, 1993, Senator Baucus introduced Senate Bill 1161, the Environmental Justice Act of 1993, which generally parallels the House Bill.

While the environmental justice movement gains momentum, a new awareness permeates the environmental community. There exist differing views on prioritizing efforts. EPA is taking action and more needs to be done.

Recommendations

- 1. The Environmental Protection Agency should develop, by March 31, 1994, a blueprint of actions that will incorporate environmental justice considerations into all aspects of EPA operations. Environmental justice will be fully reflected in EPA actions only if it is regularly considered in operational and policy decisions. This would include**

rulemaking, permitting, data collection, siting of projects and facilities, enforcement, education, and outreach. EPA must also continue its effort to develop a more culturally and racially diverse workforce. EPA should ensure that all programs receiving federal assistance give assurances that environmental justice issues are appropriately addressed; that all activities subject to EPA oversight abide by the same environmental justice considerations as EPA does; and take a lead role in establishing interagency cooperation on environmental justice issues.

2. The Environmental Protection Agency should prepare an annual report providing analysis of the progress it has made regarding environmental justice and develop appropriate remedies for communities that have suffered environmental injustice. Other actions could include liaison with states and other federal agencies and could emphasize that environmental justice is a shared responsibility of all federal agencies and ultimately, state, local and tribal governments. Emphasis could be placed on assessing the environmental impact statements' discussion of social considerations--apparently missing in some decisions.

Implications

Pending Cabinet legislation, proposed environmental justice legislation, and a proposed environmental justice Executive Order will significantly affect this program. The environmental justice movement is gaining momentum. Proposed environmental justice legislation and the companion Executive Order will require some activities, facilitate others and encourage other behaviors. There are numerous voices in the community who will have different expectations regarding legislative and executive changes. Their interactions will affect the degree of short term success that is achieved.

Fiscal Impact

This proposal is cost-neutral. EPA has proposed an additional five full time equivalent positions (FTEs) needed to carry out the agency's environmental justice activities, however, this additional staff will be allocated from existing FTEs. It is reasonable to expect some long term reduction of health costs in low income and minority

communities as the environmental quality of their communities improves.

Endnotes

1. Public Law 91-190, 42 USC 4321-4347 (Jan 1, 1970).
2. Administrator Carol Browner, EPA, testimony before the House Governmental Affairs Committee (May 6, 1993).

Agency Reinvention Activities

EPA'S REINVENTION EFFORT

Goal for Reinvention

The goal of the Environmental Protection Agency's reinvention efforts is nothing less than the reinvention of the Environmental Protection Agency--*finding ways to make EPA work better and cost less.*

Infrastructure and Reinvention Teams

In building its reinvention effort, the Agency understood that to achieve the stated goal of reinventing EPA, it would have to address its mission and administrative problems from a multi-disciplinary/cross-functional approach--free from organizational constraints. Teams were encouraged and empowered to think "outside the box." EPA's experience demonstrates that multi-disciplinary/cross-functional work teams are an effective way to bring about improvements. The Agency infrastructure consisted of:

Senior Leadership Council: The Council consists of the top political and career executives of EPA. Their role is to advise the Administrator on NPR implementation. This council continues to exist and serves the Administrator as the top level advisory, planning, and implementation body of the Agency.

Leadership Team: The Leadership Team consists of approximately 20 employees from all levels of the Agency. They provide guidance and assistance to the process and policy teams. Further, they take on issues that fall outside the process and policy teams' parameters, e.g., cross-cutting issues, convergent themes, etc.

Process and Policy Teams: There are 19 teams, representing over 400 employees, from program offices, regions, and labs. The diverse teams represent all grades of EPA employees. They identified a wide range of improvement opportunities that

address both classical administrative and management systems, as well as policies that form the foundations of how EPA approaches its mission. Teams range in size from 18 to 25 people. They are responsible for preparing substantive reports containing innovative approaches to the specific problems they have identified.

Specific teams are:

Awards/Recognition	Workforce Capacity
Ecosystem Protection	Environmental Justice
Environmental Technology	Extramural Resource Management
Financial Management	Intergovernmental Partnerships
Internal Communications	Workforce Diversity
Management Development	Performance Management
Permit Streamlining	Planning and Budgeting
Pollution Prevention	Position Classification
Quality Management	Quality Science
Regulatory Development	

Quality Advisory Group: The QAG provides consultation, facilitation, and logistical support to the Senior Leadership Council and NPR teams.

The Agency's Process

The EPA National Performance Review was officially kicked off on May 27, 1993 by the Deputy Administrator at a two day meeting which the Leadership Team and all 19 Process and Policy Team leaders attended. Since that May meeting, NPR teams have been meeting and working all across the Agency. They have employed various data gathering techniques, both internal to and external of EPA, such as focus groups, interviews, and questionnaires. Meetings have been facilitated by trained EPA employees using quality management tools and principles. In addition to the 19 Process and Policy Teams, the Administrator encouraged all EPA employees to submit their ideas, recommendations, or

suggested areas for improvement for team consideration. Consistent with the reinvention mission, most of these ideas, suggestions, and/or improvement opportunities came by way of electronic mail.

In building EPA's reinvention efforts, the Administrator adopted six principles of the Government-wide NPR initiative. EPA's principles are:

1. Measurement: The Agency has committed itself to move from measuring activities to results. As an example of this, the Administrator has already accepted the recommendation of an earlier Agencywide Improvement Team to establish environmental goals. These goals will provide the Agency and American people the opportunity to measure EPA's performance in a very real and relevant way.
2. Customer Satisfaction: The Administrator is committed to increasing the service and public outreach efforts of the Agency. In the coming months, the Agency will continue working with EPA's constituents, (states, local governments, regulated communities, non-governmental organizations, and the public) to identify areas for improvement and outline concrete action steps.
3. Competition: The Administrator and her Senior Leadership Council have recognized that some competition can be healthy. To that extent, the Agency has recommitted itself to improving overall public service, cost containment, and excellence in its products and services. EPA intends to target its interaction with governmental partners, its business with regulated communities, and its contract management.
4. Market Orientation: EPA will continue to use its leverage to positively influence market forces to help achieve the nation's environmental goals. The Agency's Regulatory Development Process Team has incorporated this principle into their new regulatory development process.

5. Empower Communities: This principle already plays a major role in EPA's reinvention effort. Shifting from command and control to empowerment will bring the Agency's partners together to build state and local capacity into its programs for environmental protection. Early readings from the NPR Teams Draft Report Recommendations suggest that early involvement with key constituency groups and communities should be expanded.

6. Decentralization: From the outset, EPA's reinvention efforts have been based on employee involvement. Over 400 employees from every level, location, and program have been working collaboratively, identifying problems, collecting data, and marketing recommendations for change. This represents the beginning of a new EPA and a new way of doing business.

Specific Reinvention Projects:

A number of recommendations concerning environmental goals and the process EPA uses for developing environmental regulations have already been accepted and are in the implementation stage. However, a vast majority of the teams' recommendations are still in draft form awaiting senior management review and approval. The Agency expects to have the efforts of all 19 teams documented in final reports within the next few weeks. Ultimately, literally hundreds of recommendations will be adopted and implementation will occur over the coming months and, in some cases, years.

U.S. ENVIRONMENTAL PROTECTION AGENCY FISCAL IMPLICATIONS SUMMARY

CHANGE IN BUDGET AUTHORITY Numbers in Millions

Ch.		Fiscal Year						Change
Ref.	Recommendation	1994	1995	1996	1997	1998	5-YRS	in FTEs
NR 1	Local Gov't. Flexibility	0	0	0	0	0	0	0
NR 2	Streamline Permit Program	0	0	0	7.5	7.5	15	250
NR 3	Promote Quality Science	0	0	0	0	0	0	0
NR 4	Promote Market Approaches	0	0	0	0	0	0	0
NR 5	User Fees	0	76	145	307	307	835	0
NR 6	Partnerships For Innovative Technologies	0	0	0	0	0	0	0
NR 7	New Leadership	0	0	0	0	0	0	0
NR 8	Reform Contract Management	0	0	0	0	0	0	0
NR 9	Reorganize Office of Enforcement	0	0	0	3.5	3.5	7	92
NR 10	Pollution Prevention	0	0	0	0	0	0	0
NR 11	Environmental Justice	0	0	0	0	0	0	0
	Total, Environmental Protection Agency	0	76	145	318	318	857	342

CHANGE IN OUTLAYS Numbers in Millions

Ch.		Fiscal Year						Change
Ref.	Recommendation	1994	1995	1996	1997	1998	5-YRS	in FTEs
NR 1	Local Gov't. Flexibility	0	0	0	0	0	0	0
NR 2	Streamline Permit Program	0	0	0	.4	7.5	7.9	0
NR 3	Promote Quality Science	0	0	0	0	0	0	0
NR 4	Promote Market Approaches	0	0	0	0	0	0	0
NR 5	User Fees	0	39	95	206	264	604	0
NR 6	Partnerships For Innovative Technologies	0	0	0	0	0	0	0
NR 7	New Leadership	0	0	0	0	0	0	0
NR 8	Reform Contract Management	0	0	0	0	0	0	0
NR 9	Reorganize Office of Enforcement	0	0	0	3.3	3.5	6.8	0
NR 10	Pollution Prevention	0	0	0	0	0	0	0
NR 11	Environmental Justice	0	0	0	0	0	0	0
	Total, Environmental Protection Agency	0	39	95	209.7	275	618.7	