



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

September 6, 2002

MEMORANDUM

SUBJECT: EPA's Key Management Challenges

TO: Christine Todd Whitman
Administrator

We have updated the list of items we consider to be key management challenges confronting the U.S. Environmental Protection Agency (EPA). The list includes two new challenges, *Challenges in Addressing Air Toxics Program Phase 1 and Phase 2 Goals* and *Management of Biosolids*. We combined two prior issues (*Information Resources Management* and *Quality of Laboratory Data*) under the title of *Information Resources Management and Data Quality*. This year we tiered the challenges to reflect what we consider to be the severity of their impact on the Agency's mission.

Tier 1

Linking Mission and Management
Information Resources Management and Data Quality
Employee Competencies
EPA's Use of Assistance Agreements to Accomplish Its Mission
Protecting Critical Infrastructure from Non-Traditional Attacks
Challenges in Addressing Air Toxics Program Phase 1 and Phase 2 Goals

Tier 2

EPA's Working Relationship with the States
EPA's Information Systems Security
Backlog of National Pollutant Discharge Elimination System Permits
Management of Biosolids

Most of the challenges correspond to the Presidential Management Agenda Initiatives (PMAI). For example, *Linking Mission and Management* and *EPA's Working Relationship with the States* address the **PMAI for Budget and Performance Integration**, *Information Resources*

Management and Data Quality and *Information Systems Security* address the **PMAI for**

Expanded Electronic Government, *Employee Competencies* addresses the **PMAI for Strategic Management of Human Capital**, and *EPA's Use of Assistance Agreements to Accomplish its Mission*, addresses the **PMAI for Improving Financial Performance**.

The Agency has made substantial progress on several of the weaknesses, even though they remain as management challenges. We removed one challenge, *Results-Based Information Technology (IT) Investment Management*, because the Agency has made significant improvement in this area. This year, the Agency created a Chief Technology Officer position to coordinate IT activities related to its Capital Portfolio Investment Control (CPIC) process. The Chief Information Officer redelegated approval authority for IT acquisitions and formally established a CPIC policy defining roles and assigning responsibilities. We believe these actions substantially improve EPA's management of IT investments. In addition, EPA expects to deliver its draft baseline Enterprise Architecture this fiscal year.

The attached write-ups include an assessment of the Agency's progress in addressing previously identified challenges since our last reporting date.

Should your staff have any questions, please have them contact Elissa R. Karpf, Assistant Inspector General for Planning, Analysis and Results at (202) 566-2604.

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Attachment

TIER ONE

Linking Mission and Management

EPA can be viewed as a business which must deliver improved environmental and human health protection to its customers, the American people, at a reasonable cost. To tell its story of performance in relationship to goals, the Agency must develop more outcome-based strategic and annual targets in collaboration with its partners. EPA has output data on activities, but few environmental performance goals and measures, and little data supporting the Agency's ability to measure environmental outcomes and impacts. Reliance on output measures has made it difficult for EPA to provide the regions and states the flexibility they need to (1) direct resources to their highest priority activities, or (2) assess the impact of Agency work on human health and the environment. Better performance measurement and financial accountability can be achieved through clearly linked, meaningful performance measures with defined environmental outcome goals. To be accountable to the American people, EPA and its partners need to capture and report consistently meaningful and timely environmental and human health results, along with cost information.

This November, the Administrator plans to issue the first *State of the Environment Report* which will bring together national, regional and program office indicator efforts to describe the condition of critical environmental areas and human health concerns. Perfecting this report will be a multi-year process, but preparing the report is a significant step forward. It will allow the Agency to inventory and report on existing indicators, identify data gaps, and develop plans to address the challenges in filling these gaps.

In response to the need for reliable cost information, the Office of the Chief Financial Officer (OCFO) has purchased a financial management business intelligence reporting tool for managerial cost accounting and reporting. OCFO will work with selected offices to define and develop program-specific and executive reports to help managers analyze data to support resource decisions, manage costs, and gauge program results. As the Agency implements cost accounting, its success will rely on how well EPA program offices (1) define their mission-critical activities; (2) identify data needs, determine whether such data exists and, if so, where it resides; (3) link information systems to optimize data usability and minimize data integrity concerns; and (4) technically design program-specific and executive cost reports using the new reporting tool. OCFO will need to work closely with each program office in these areas for its cost accounting solution to be successful agency-wide.

During the past year, EPA examined options for improvements in its ability to manage for results and account for resources. In June 2002, senior Agency leaders issued a draft report to the Administrator recommending specific changes in four areas: Planning, Performance Measurement, Accountability and Feedback, and the Agency's Capacity to Manage for Results. The steering group also suggested improvements for the 2004 budget process, and will develop a change strategy for memorandum of understanding agreements between national program managers and regions regarding annual work planning.

EPA has begun developing the process for linking costs to goals but must follow through by working with its regional offices and state and Federal partners to develop appropriate outcome measures and accounting systems that track environmental and human health results across the

Agency's goals. This information must then become an integral part of senior management's decision-making process.

Information Sources

| | |
|---------------|---|
| 2001-B-000001 | EPA's Progress in Using the Government Performance and Results Act to Manage for Results, June 13, 2001 |
| 2001-1-00107 | Audit of EPA's Fiscal 2000 Financial Statements, February 28, 2001 |
| 2000-P-0028 | RCRA Corrective Action Focuses on Interim Priorities --Better Integration with Final Goals Needed, September 29, 2000 |
| 2000-P-10 | Biosolids Management and Enforcement, March 20, 2000 |
| 2000-M-000828 | EPA Needs Better Integration of the National Environmental Performance Partnership System, March 31, 2000 |
| 1999-000209 | Region 8 Needs to Improve Its Performance Partnership Grant Program to Ensure Accountability and Improved Environmental Results, September 29, 1999 |
| 1999-000208 | Region 6 Oversight of Performance Partnership Grants, September 21, 1999 |
| 1999-P-00216 | Region 4's Implementation and Oversight of Performance Partnership Grants, September 27, 1999 |
| 91000115 | EPA Controls Over RCRA Permit Renewals, March 30, 1999 |

Information Resources Management and Data Quality

EPA faces a number of challenges with the data it uses to make decisions and monitor progress against environmental goals. Those challenges cover a broad range of inter-related activities including: using enterprise and data architecture strategies to guide integration and management of data; implementing data standards to facilitate data sharing; and establishing quality assurance practices to improve the reliability, accuracy, and scientific basis of environmental data, including data derived from laboratories. EPA and most states often apply different data definitions supporting their own information systems, and sometimes collect and input different data resulting in inconsistent, incomplete, and obsolete consolidated national data.

EPA acknowledges IRM data management as an Agency-level weakness and has specifically targeted various components for improvement. However, developing a robust data management program remains a complex and elusive effort, and several areas still need to be completed. For example, the Agency has yet to implement a 1998, agreed-upon, OIG recommendation to formally revise its policies and procedures supporting an Agency standards program. EPA developed and formally approved seven data standards; however, states will be allowed to decide whether or not to adopt these standards. Data standards are a fundamental component for implementing EPA's National Environmental Information Exchange Network and other e-government initiatives. If EPA's exchange network infrastructure is to work effectively, the use of data standards should be a required condition for receiving money under the Exchange Grant Program.

EPA estimates that the first six standards will not be implemented in major environmental systems until the end of FY 2003. During the interim, EPA is working with the Environmental Council of States to identify and develop additional data standards. However, past experiences suggest that the overall process needs to move forward in a more timely and structured manner.

Data reliability is another major aspect of data management that needs further attention. Recent audits indicate systems used by EPA's Enforcement, Superfund, and Water programs have inconsistent, incomplete, and obsolete data. For example, we are concerned that the system EPA uses to manage its drinking water programs, SDWIS-FED, is not well designed and implemented. Also, data in two major Agency systems contain significant error rates in crucial data fields used to track environmental progress on Government Performance and Results Act (GPRA) goals and measures. For example, over 90 percent of the cases reviewed within EPA's National Enforcement Docket System contained errors.

The Agency has responded to data quality concerns by instituting an Integrated Error Correction Process, which provides a mechanism for reporting and resolving errors identified by the public on EPA web sites. Last year, EPA drafted a Data Quality Strategic Plan to prioritize recommendations for improving the quality of currently collected data, but the draft plan did not address the long-recognized problem of data gaps. During 2002, EPA plans to issue its first *Environmental Indicators Report*, which should help identify gaps between existing and needed environmental data.

Questionable analyses by laboratories raise concerns about the effectiveness of environmental decisions and lead to additional costs and unnecessary delays when EPA has to identify and assess the impact of the fraudulent data and undertake additional sampling. In a June 1999 memorandum to the Acting Deputy Administrator, we suggested actions the Agency could take to better identify data of questionable quality. Ongoing lab fraud investigations in FY 2002 indicate that despite Agency efforts to ensure improved data quality, manipulated data continues to be generated and supplied to EPA.

Our reviews and investigations have disclosed a disturbing trend in the number of environmental laboratories that are providing misleading and fraudulent data to the states for monitoring the nation's public water supplies. For example, several current lab fraud investigations involve severe manipulation of data used to evaluate the compliance of public water supplies with Federal drinking water standards. Many other EPA programs (e.g., Superfund, Resource Conservation and Recovery Act, National Pollution Elimination and Discharge System, air toxins, underground storage tanks, and pesticides) have also been impacted by laboratory fraud.

The Agency has conducted extensive technical systems assessment audits at all EPA regional and research laboratories. In addition, EPA has provided fraud detection and awareness training and ethics training; studied electronic methods for screening data; and issued guidance discussing the level of quality assurance given the intended use of data. These efforts should help to improve the quality assurance systems and documentation throughout the Agency's environmental laboratories. However, until the impact of these and any other recommended actions is realized, EPA must continue to assess and improve its controls over laboratory data quality. In its mid-year Federal Financial Managers' Integrity Act report for FY 2002, the Agency considered laboratory quality to be an Agency-level weakness. As a result of current shortcomings, EPA will not have the foundation needed to share or

compare information, or monitor environmental activities in the near future. EPA's ability to make environmental decisions, enforce environmental laws and evaluate the outcomes of its programs in terms of environmental changes may continue to be limited by gaps and inconsistencies in data quality. EPA needs to continue to identify what data is necessary to manage its programs and work with its partners to capture and report timely, accurate, and consistent information.

Information Sources

IG's open letter to the environmental analytical laboratory community,
September 5, 2001

2000-P-3, Review of Region 5 Laboratory Operations, November 22, 1999

Memo to the Acting Deputy Administrator: Laboratory Fraud: Deterrence and Detection,
June 25, 1999

Employee Competencies

One of the Agency's greatest challenges is the development and implementation of a workforce planning strategy that links employee development to its goals. To achieve its environmental goals and objectives, EPA must have a competent, well-trained, and motivated workforce with the right mix of skills and experience, and a system for holding employees accountable for achieving strategic goals.

The General Accounting Office (GAO) reported that EPA needs to implement a workforce planning strategy to determine the skills and competencies essential for meeting current and future needs and improve employee training. A number of OIG reports also highlighted the need for improved training at EPA. Acknowledging that appropriate training is critical to ensuring the credibility of its actions, the Agency (1) fostered a series of management development programs; (2) established a contract to develop training for mid-level professionals and managers; and (3) initiated a contract to create a workforce planning model to identify skills needs and gaps, and target recruitment and retention for critical occupations.

GAO recently testified that EPA has made substantial progress in developing a strategy to manage its workforce, yet it also acknowledged that EPA still needs to integrate this strategy into its daily business practices. In particular, EPA must:

- specifically address how human capital activities will help achieve environmental goals,
- identify milestones for completing actions to implement its human capital objectives,
- further its commitment to deploy the strategy by dedicating resources,
- help regions and program offices develop specific technical training plans that link into the human capital strategic plan, and
- establish results-oriented performance measures.

The Agency recognized human capital as a key Agency priority in its FY 2001 Strategic Plan. In response to OIG and GAO recommendations, EPA also began implementing a Human Capital Strategic Plan. The plan calls for identifying the skills needed in every program unit by assessing future needs, identifying skills gaps, and tying skill needs to future budget requests. In calendar year 2003, EPA plans to complete a model workforce planning process and deploy a

system that will meet the Agency's competency-based workforce planning needs.

While progress has been made and additional work is planned, this area continues to be a key challenge. In a recent briefing, EPA provided information to the OIG concluding that staff has limited experience in non-traditional, collaborative approaches to environmental problem solving. Training is needed to develop management skills to better focus on outcomes and do business with EPA partners. We will continue to monitor the Agency's progress in developing a system that ensures a well-trained and motivated workforce with the right mix of skills and experience. Implementation of the Human Capital Strategic Plan is an Agency-level weakness under the Federal Managers' Financial Integrity Act.

Information Sources

- 2000-P-00014 Region 6 Supplemental Environmental Projects, August 22, 2001
2000-M-000828 EPA Needs Better Integration of the National Performance Partnership System, March 31, 2000

EPA's Use of Assistance Agreements to Accomplish Its Mission

Assistance agreements constitute approximately one-half of the Agency's budget and are the primary vehicles through which EPA delivers environmental and human health protection. Thus, it is important that EPA and the public receive the value for which the Agency has paid.

Our audit work has repeatedly identified problems in this area. We recently reported that some EPA assistance recipients did not have adequate financial and internal controls to ensure federal funds were managed properly. As a result, EPA had limited assurance that grant funds were used in accordance with work plans and met negotiated environmental targets. For example, an EPA Region 5 grantee could not adequately account for over half of its \$300,000 in EPA funds. Also, a Region 1 grantee had submitted multiple financial status reports with different ending balances, had excess federal funds on hand, and could not support that it had met the minimum cost-sharing requirement. Misuse of grant funds also resulted in the City of Cleveland agreeing to settle a civil lawsuit charging that its Air Pollution Control Program improperly spent over \$429,000 in grant funds.

Further, in May 2001, the OIG reported that EPA did not have a policy for competitively awarding \$1.3 billion in discretionary assistance funds and recommended such a policy be developed. The Agency agreed and is drafting a policy to address competition in the award of discretionary assistance funds.

The Agency has taken several actions to improve its oversight controls over assistance agreements, including requiring additional training for all project officers and issuing policy on project officer and grant management oversight roles and responsibilities. However, recent reports and ongoing work indicate that Agency efforts to improve assistance agreement management are still not uniformly effective. In March 2002, the OIG reported that the Agency did not always measure whether assistance agreements awarded as surveys, studies, investigations, and special purpose grants achieved results that contributed to protecting human health and the environment. We also reported that EPA lacked assurance that \$187 million spent by assistance agreement recipients for procurements was used to obtain the best products, at the

best price, from the most qualified firms.

Our ongoing work shows that some Agency actions to address grant oversight weaknesses have not been effective. For example, the Office of Administration and Resources Management developed post-award monitoring policies, but these policies were not always followed. On-site evaluations, and oversight and baseline monitoring of assistance agreements by grant specialists were not sufficient to assure that agreement recipients were complying with the requirements of the grants and are appropriately using EPA funds. In May 2002, we recommended the Agency elevate this issue from an Agency-level weakness to a material weakness under the Federal Managers' Financial Integrity Act.

Information Sources

| | |
|---------------|---|
| 2002-P-00009 | Procurements Made by Assistance Agreement Recipients Should Be Competitive, March 28, 2002 |
| 2002-P-00005 | Surveys, Studies, Investigations, and Special Purpose Grants, March 21, 2002 |
| 2001-P-00008 | EPA's Competitive Practices for Assistance Agreements, May 21, 2001 |
| 2000-P-00021 | Increased Focus on Grant Management and Internal Relationships Would Improve Region 8's Tribal Assistance Program, September 29, 2000 |
| 2000-1-0416 | Grant Management Practices of Rhode Island Department of Environmental Management, September 21, 2000 |
| 2000-P-000020 | Ohio Environmental Protection Agency Superfund Cooperative Agreement, September 15, 2000 |
| 2000-4-0059 | Michigan Association of Conservation Districts, September 7, 2000 |

Protecting Critical Infrastructure From Non-Traditional Attacks

In 2001 we reported that EPA had yet to fulfill its responsibilities under Presidential Decision Directive (PDD) 63 regarding the development of a national framework for protecting critical physical and cyber-based infrastructures. In the past year the Agency reported that it had made significant progress in completing many of the tasks outlined in a draft 1998 plan to develop a National Infrastructure Assurance Plan. However, the attacks of September 11, 2001, greatly increased the scope and priority of EPA's mission in protecting critical infrastructure.

The July 2002 National Strategy for Homeland Security, issued by the Office of Homeland Security, designates the EPA as the lead agency for protecting critical infrastructure and key assets in the water and chemical industry and hazardous materials sectors. This responsibility is consistent with the Agency's traditional oversight role in water and wastewater infrastructure security and the cleanup of chemical, biological, and certain radiological attacks; and as the primary regulator of chemical facilities. Thus, EPA must be prepared to fulfill crisis and consequence management responsibilities in the wake of a terrorist incident; and it must be prepared to help detect, prevent, protect against, respond to, and recover from a terrorist attack

against the United States. Moreover, Public Law 107-188, the Public Health Security and Bio-terrorism Response Act, signed in June 2002, specifically tasked EPA with funding and overseeing water system vulnerability assessments and the resulting response. The Agency's infrastructure protection needs have been further defined by the lessons it learned from the World Trade Center response and the cleanup of the Anthrax-contaminated buildings. These combined challenges are identified and addressed in EPA's draft Strategic Plan for Homeland Security. Among the many infrastructure protection challenges contained in the plan are:

- To assist water and waste water utilities in every community in the U.S. to: (1) access the best scientific information, training, and technical expertise on water security; (2) assess their utility's vulnerabilities to a possible attack; (3) take action to improve security; and (4) respond effectively and efficiently in the event that an incident occurs.
- To develop a water utility security research plan and establish a technology verification program for water utility security as well as to evaluate promising technologies.
- To support and develop the preparedness of state and local governments and private industry to respond to, recover from, and continue operations following a terrorist attack. For example, EPA will work with other agencies to ensure that building air protection guidance is produced and widely disseminated, and that training on such guidance is available. EPA will also work with our partners in other Federal agencies, academia, industry, and public health organizations to identify and conduct research on needed technologies, as appropriate.

To achieve the goals in EPA's strategic plan, the Agency will need to apply technical, organizational, resource, training, and communication assets to complex issues with unprecedented dispatch. Success will require simultaneous attention to questions of threat, capabilities and deficiencies, preparedness, management and oversight, and efficiency and effectiveness. The OIG plans to address these issues in its multi year oversight of the Agency's implementation of its homeland security plan in support of the Office of Homeland Security.

Challenges in Addressing Air Toxics Program Phase 1 and Phase 2 Goals

Toxic air pollution remains one of the most significant health and environmental problems in the U.S., causing cancer, neurological, immunological, and other serious health problems. Despite the potential for serious harm, EPA is nearly two years behind in fulfilling its statutory responsibilities for issuing all Phase 1 air toxics standards (also known as MACT¹ standards) by the November 2000 statutory deadline. Of 176 air toxics categories that EPA is required to regulate under the 1990 Clean Air Act, EPA has issued MACT standards for about 82 categories. The Agency's most recent estimate for completing the Phase 1 MACT standards is 2004. EPA's delay in issuing the Phase 1 MACT standards was identified as a material weakness in 2002.

Of even more importance is that Phase 1 is solely a technology-based approach to emissions

¹MACT = Maximum Achievable Control Technology. In essence, Phase 1 requires EPA to identify the control technologies used by the best performing 12 percent of sources in a particular category, and then require that all other sources in the same category meet the same level of emissions reductions as the best performing 12 percent.

reductions, and may not provide acceptable health protections from exposure to air toxics. EPA will assess the health risks of the 188 toxic air pollutants in the second phase of the two-phased approach, known as the “residual risk” phase. No Phase 2 residual risk standards have been completed. The Science Advisory Board has questioned EPA’s early efforts at assessing residual risks, including whether the Agency may need to seek statutory relief from Phase 2. The Phase 2 residual risk determinations are expected to be expensive and controversial based on the limited amount of air toxics health data available and the projected costs of compliance for industry. Although the 1990 Act listed 188 air toxics that EPA must control, to date the Agency has focused largely on 33 of the suspected worst air toxics prevalent in urban areas. Significant data gaps in our understanding of these 33 highest priority air toxics still exist. Additionally, EPA has limited health and ecological effects information, exposure data, emissions data, source characterization data, and ambient data on many of the remaining 155 air toxics.

At the present time, the air toxics program relies heavily on industry emissions data for its GPRA measures, some of which are generated by using inferior emission estimation techniques. The lack of a robust set of ambient monitoring data on the quantity and concentrations of air toxics is also a concern. The Agency estimates that mobile sources may contribute half of all air toxics emissions; and there is little health data on the synergistic impacts of exposures to multiple air toxics, such as exposures that routinely occur in urban areas -- the types of exposures that some scientists believe are the leading health impact from air toxics.

EPA requested \$118 million for all air toxics activities for FY-2003, or about 20 percent of its clean air budget. About one-third of the air toxics budget goes to 112 state and local agencies that have authority to implement existing air toxics regulations, including permitting and inspecting sources for air toxics. EPA’s goal is to eliminate the risks of cancer and other significant health problems from air toxics emissions for 95 percent of the U.S. population by 2020. We will continue to monitor the progress EPA makes in addressing this important issue.

TIER TWO

EPA’s Working Relationship With the States

According to the Environmental Council of the States, in FY 2001, the authority to implement about 80 percent of the environmental programs rested with the states, which provided about 65 percent of the financial resources to EPA’s 35 percent. Accordingly, the Agency relies to a great extent on the states for environmental results, the data used to measure performance against standards, and for enforcement actions against violators. Yet, the Agency and states have been unable to agree on state flexibility and accountability issues. Relations remain strained due to disagreements over: (1) respective roles and the extent of federal oversight; (2) priorities and budgets; and (3) results-oriented performance measures, milestones, and data. EPA can improve its working relationship with states by establishing a structure to mutually set direction, establish goals, provide training, oversee accomplishments, and ensure accountability.

The National Environmental Performance Partnership System (NEPPS) established EPA-state working partnerships to accomplish complex environmental issues with scarce resources. One of the primary tools for implementing NEPPS, performance partnership grants (PPGs), allows states and tribes to combine multiple EPA grants into one.

A series of OIG audits on regional and state NEPPS program implementation (including PPGs) reported that NEPPS principles were not well-integrated into EPA because of the lack of: (1) leadership providing a clear direction and expectations, (2) training and guidance, (3) trust in NEPPS due to fear of change and losing control, and (4) goals and related performance measures to monitor and measure progress on achieving better environmental results.

Since we began reporting on NEPPS, the Agency has been working to fulfill its potential. To address the lack of leadership and clear direction for NEPPS, the Agency formally designated the Assistant Administrator for the Office of Congressional and Intergovernmental Relations (OCIR) as the National Program Manager for NEPPS. OCIR has developed a strategy for NEPPS issues and is developing tools to promote better understanding of NEPPS and clarify appropriate expectations.

The current Administrator has also expressed a personal commitment to seeing NEPPS succeed and expand by: (1) requiring regular reports from the Regional Administrators on how NEPPS is working; and (2) asking the AAs, Regions and states to jointly identify areas where flexibility is available and encourage testing new measures of program performance. In addition, EPA and the Environmental Council of the States (ECOS) are working jointly to remove remaining barriers to effective implementation of NEPPS. The Agency also solicited formal input from ECOS and the Tribal Caucus on state and tribal priorities for the EPA FY 2003 and 2004 annual planning and budgeting process. This information will be incorporated into EPA's strategic and annual planning processes and will influence the development of performance goals and targets under GPRA.

While the Agency has taken some notable actions to improve EPA's working relationship with states, we believe much remains to be done. For example, EPA and state managers continue struggling with ways of providing states flexibility to address their highest environmental priorities while implementing and reporting on core program requirements. In addition, EPA has not defined its performance measures and related milestones to monitor EPA and state progress toward accomplishing NEPPS and PPG goals. We are continuing to monitor the Agency's progress in addressing this important issue.

Information Sources

| | |
|-----------------------|---|
| 2001-P-00013 | Water Enforcement: State Enforcement of Clean Water Act Dischargers Can Be More Effective, August 2001 |
| 2001-B-000001 | EPA's Progress Using the Government Performance and Results Act to Manage for Results, June 13, 2001 |
| 2000-P-00008 | Improving Region 5's EnPPA/PPG Program, February 29, 2000 |
| 2000-M-000828-000011 | EPA Needs Better Integration of the National Environmental Performance Partnership System, March 31, 2000 |
| 1999-000209-R8-100302 | Region 8 Needs to Improve Its Performance Partnership Grant Program to Ensure Accountability and Improved Environmental Results, September 29, 1999 |
| 1999-P-00216 | Region 4's Implementation and Oversight of Performance Partnership Grants, September 27, 1999 |
| 1999-000208-R6-100282 | Region 6 Oversight of Performance Partnership Grants, September 21, 1999 |

EPA's Information Systems Security

EPA's information systems collect, process, store, and disseminate vast amounts of information used to help make sound regulatory and program decisions. Therefore, it is essential that the Agency prevent intrusion and abuse of these systems and protect the integrity of its data.

Under the leadership of the Office of Environmental Information (OEI), EPA's goal is to make information on its computer systems available, while protecting the confidentiality and integrity of its information. The Agency has substantially enhanced its Information Security Program through improved risk assessment and planning processes, major new technical and procedural controls, issuance of new policies, and initiation of a regular process of testing and evaluation.

The dynamic nature of security, however, requires continued emphasis and vigilance. We believe the following actions are needed to protect the Agency's information and systems.

- Implement a formal incident response plan. OEI is trying to address this need through draft guidelines and a strong working relationship with the OIG's Computer Crimes Unit. Also, a contract to develop an incident response capability will soon be awarded. Furthermore, an informal process has been agreed upon for timely referral of potential incidents, coordination, securing of evidence, and other vital actions.
- Establish a robust quality assurance (QA) program. Without regular, effective oversight processes, EPA management will continue to place unsubstantiated trust in its many components to fully implement, practice, and document security requirements. Moreover, the public and Congress may continue to question how well the Agency plans for and protects its information resources. EPA's decentralized organizational structure makes it essential that OEI provide strong leadership and oversight to ensure the effectiveness of its entity-wide computer security program. OEI has begun addressing these responsibilities, but additional resources are needed to fully develop and implement QA processes Agency-wide.
- Implement an organizational structure under which Information Security Officers (ISOs) are accountable directly to the OEI. EPA's decentralized Wide Area Network infrastructure and its security procedures create serious vulnerabilities. Since intrusion detection sensors on the central network cannot track subnetwork activity, subnetwork security relies upon the expertise of assigned ISOs. The experience, training, and methods of obtaining information and providing security maintenance of these ISOs vary greatly. Furthermore, OEI has no direct supervisory relationship over them since they report to and are evaluated by the regional or program office they are assigned. This relationship makes it difficult for OEI to mandate Agency-wide changes, deal with personnel issues and inefficiencies, resolve security conflicts, or detect and respond to security vulnerabilities on a subnetwork level. In its mid-year Federal Financial Management Integrity Report for FY 2002, the Agency considered information security to be a material weakness.

Information Sources

- | | |
|--------------|--|
| 2001-P-00016 | Government Information Security Reform Act: Status of EPA's Computer Security Program, September 7, 2001 |
| 2001-P-00004 | Environmental Protection Agency Payroll and Personnel Systems |

2000-1-00330 (EPAYS) Access Controls, March 22, 2001
RACF Security controls, June 30, 2000
2000-P-16 Security of Region VIII's Dial-Up Access, March 31, 2000

Backlog of National Pollutant Discharge Elimination System (NPDES) Permits

The Clean Water Act specifies that NPDES permits expire in five years. Permittees wishing to continue discharging beyond that term must apply for permit renewal at least six months prior to the expiration date of their permit. If the permitting authority receives a renewal application but does not reissue the permit prior to expiration, the permit may be "administratively continued."

Administratively continued, or "backlogged," permits are a major concern because conditions may have subsequently changed since the original permit was issued, and new restrictions on permits may now apply. However, "backlogged" permits would not contain these new terms and conditions, thereby delaying potential environmental improvements to waters.

The Agency recognizes that the backlog of NPDES permits is a nationwide problem and has developed a corrective action plan. The plan includes (1) using new technology to streamline the permit development process, (2) providing environmental assessments and permit assistance to the states, and (3) communicating the importance of this issue to the states and EPA regional offices and receiving their firm commitments to reduce the backlog.

Last year, EPA's goal was to reduce the backlog of NPDES permits for major facilities to ten percent by the end of calendar year 2001 and to ten percent for major and minor permits by the end of calendar year 2004. As of February 2002, only eighteen states had met the ten percent backlog goal for majors. During FY 2002, EPA drafted a system for prioritizing and reissuing backlogged permits to focus on those with the most significant environmental impact, but the Agency no longer expects to meet its 2004 goal. Corrective actions are not expected to be completed until the end of FY 2005.

The Agency realizes it needs to find new ways of implementing the NPDES program or the problem will increase. Accordingly, it is considering several innovative solutions to expedite permit renewal and prevent backlogs, such as issuing general permits for a class of similar facilities and using information technology to expedite the entire permit development process. It is also committing to provide increased contractor capacity for state permit issuance work.

This issue was identified as a Federal Managers' Financial Integrity Act weakness in 1998 and remains a material weakness. We will continue monitoring EPA's progress in addressing this important issue. Eliminating the backlog and making the permit issuance process more efficient will release resources for other important activities.

Information Sources

- 8100076 Region 10's National Pollutant Discharge Elimination System Permit Program, March 13, 1998
- 8100089 Kansas National Pollutant Discharge Elimination System Program, March 31, 1998

Management of Biosolids

Approximately six million tons of sewage sludge (“biosolids”) are produced annually by sewage treatment plants in the United States. With inadequate treatment these biosolids may contain a wide variety of chemicals and pathogens, the remains of the sewage treatment process. (1) EPA does not know whether current regulations, when adhered to, are protective of public health; (2) EPA does not have an overall understanding of the magnitude and quality of Biosolids production and disposal practices; (3) EPA does not know if the enforcement and compliance resources committed to managing biosolids are adequate to ensure that the regulations are adhered to.

EPA has not conducted the basic research needed to determine the risk associated with certain biosolids disposal practices. The Agency has taken the position that biosolids management is a low-risk activity. As a result, EPA has failed to adhere to its commitment to comprehensively assess the extent of the risk. EPA issued Part 503 of Title 40 of the Code of Federal Regulations (“The Sludge Rule”) to govern the use and disposal of biosolids in February 1993 under court order. When it issued the rule, EPA committed to conducting a comprehensive research program to assess the risks associated with land application of biosolids, yet it has not yet done so. In June 2002 the National Academy of Sciences (NAS) recommended additional research. EPA is currently studying those recommendations, and has committed to producing a research work plan by the end of 2003, nearly 11 years after committing to do so.

EPA uses the Permit Compliance System (PCS) to manage water quality activities of point source dischargers such as sewage treatment plants, but PCS is acknowledged by the Office of Water (OW) as inadequate for managing biosolids. EPA is unable to answer basic questions such as how much biosolids are land-applied. As a result of this data gap, OW developed an independent system, the Biosolids Data Management System (BDMS), to track compliance with biosolids regulations. EPA is revising PCS, but has not yet decided whether to incorporate BDMS into this new version. According to OW, “the ultimate usefulness of the BDMS on a national basis is likely dependent upon its adoption into PCS.”

EPA has diverted compliance and enforcement resources away from this program. The safety of biosolids land application depends on the adherence to highly technical treatment standards by land applicators across the country. In a 2000 report we found inadequacies in EPA's management and enforcement of the biosolids program. In a status report on the biosolids program published two years later, we reported a further 44% reduction in full-time equivalent (FTE) positions (from 18 to 10). This is a particular concern because EPA runs the biosolids program in 45 states. Adequate oversight of this program is critical for ensuring regulatory compliance. To date, EPA has not committed the resources needed to fulfill its oversight responsibilities.

In convening a committee to study the NAS recommendations EPA is beginning to address these issues. However, several issues remain unsettled and we are not convinced that the agency is directing adequate resources to resolving these concerns once and for all. We will continue to monitor EPA's progress in this area until these issues are settled. In May 2002, we recommended this issue from as an Agency-level weakness candidate under the Federal Managers' Financial Integrity Act.

Information Sources

2002-S-000004 Land Application of Biosolids, March 28, 2002
2000-P-000010 Biosolids Management and Enforcement, March 20, 2000