

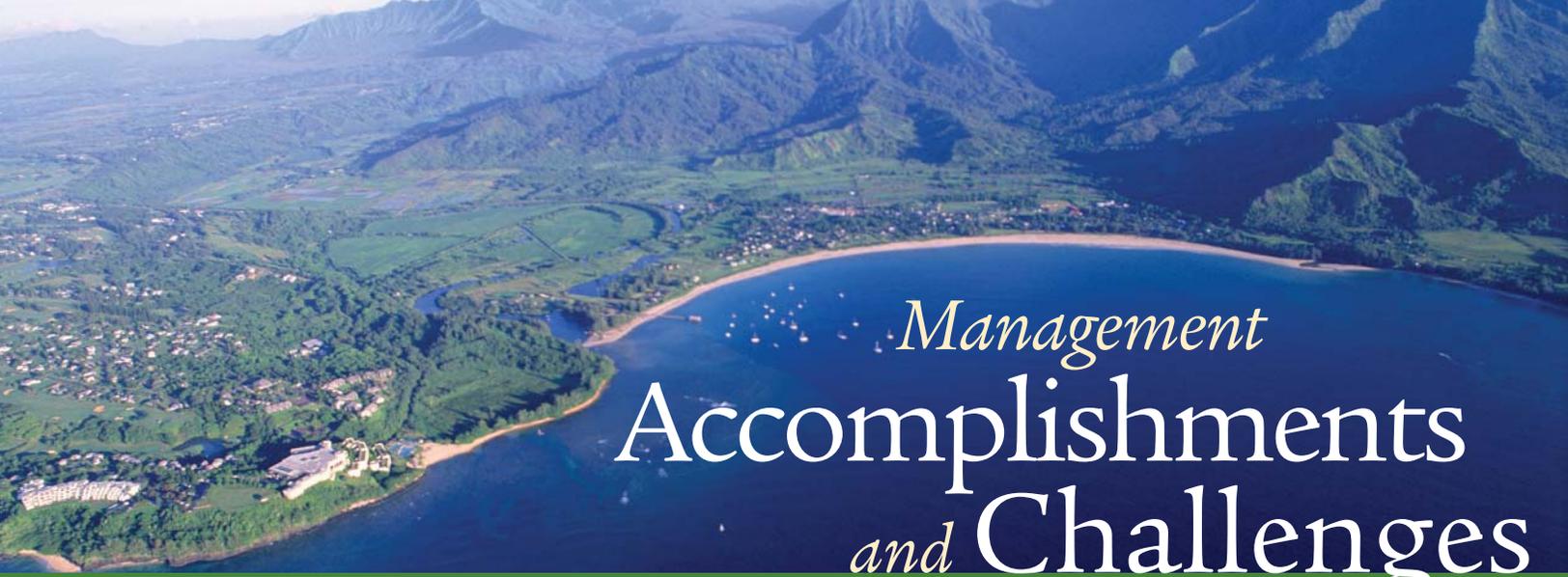
Section III.

Management Accomplishments *and* Challenges



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Management Accomplishments and Challenges

Introduction

Management challenges and integrity weaknesses represent vulnerabilities in program operations that may impair EPA's ability to achieve its mission and threaten the Agency's safeguards against fraud, waste, abuse, and mismanagement. These areas are identified through internal Agency reviews and independent reviews by EPA's external evaluators, such as the Office of Management and Budget (OMB), the Government Accountability Office (GAO), and EPA's Office of Inspector General (OIG). This section includes two components: (1) a brief discussion of EPA's progress in addressing its FY 2006 integrity weaknesses, and (2) a discussion of the top ten management challenges identified by EPA's OIG and the Agency's response.

Under the Federal Managers' Financial Integrity Act (FMFIA), all federal agencies must provide reasonable assurance that policies, procedures, and guidance are adequate to support the achievement of their intended mission, goals, and objectives. (See the Management

Discussion and Analysis section for EPA's assurance statements.) Agencies also must report any material weaknesses identified through internal and/or external reviews and their strategies to remedy the problems. EPA closed the last of its material weaknesses in FY 2001 and has had no material weaknesses since that time. The Agency continues to make progress in reducing a number of less severe Agency weaknesses. In FY 2006, EPA closed its Agency-level weakness on water quality standards (see page III-2 of this section for more details). The Agency will continue to address and report its progress in addressing the remaining seven weaknesses.

As required by the Reports Consolidation Act of 2000, OIG identifies, briefly assesses, and reports annually the most serious management and performance challenges facing the Agency. In FY 2006, OIG identified ten areas it considers to be EPA's most pressing management challenges. While some are new, others are recurring issues that take time to resolve (e.g., managing

human capital and assistance agreements). Notably, OIG did not suggest elevating any of these issues to the level of a material weaknesses—a deficiency that could adversely impact the integrity of Agency programs and activities. EPA has made great progress in addressing the issues OIG identified and will continue to work diligently in assessing and resolving vulnerabilities before they become serious management issues.

EPA's senior managers remain committed to maintaining effective and efficient internal controls to ensure that program activities are carried out in accordance with applicable laws and sound management policy. EPA leaders meet periodically to review and discuss progress the Agency is making to address issues raised by OIG and other external evaluators, as well as progress in addressing current weaknesses and emerging issues.

EPA's Progress in Addressing FY 2006 Agency Level Weaknesses (Prepared by the EPA)

In FY 2006, EPA declared no new material or Agency-level weaknesses. The Agency continued to address eight Agency-level weaknesses identified in previous fiscal years, completing corrective actions and closing the weakness related to water quality standards. This section discusses five of the eight Agency-level weaknesses EPA tracked in FY 2006; the remaining three—homeland security, assistance agreements, and human capital—are discussed in the management challenges section that follows.

BACKLOG OF WATER QUALITY STANDARDS

In FY 1999, EPA identified a weakness in the backlog of actions to approve, disapprove, and promulgate water quality standards to assure timely improvements in water quality. Over the years, the Agency has made significant resource and programmatic changes to help reduce the number of backlogs. In FY 2006, the Agency restructured its oversight of water quality standards to rely more heavily on state and regional standards review and has implemented a real-time tracking system. Data for the past 4 years show that the Agency has made good progress in reducing the number of pre-Alaska outstanding disapprovals and the number of pre-Alaska outstanding submissions. EPA has met its two goals for closing this weakness: (1) no more than one state in each EPA region on average with pre-Alaska

disapproved elements of water quality standards, and (2) on an EPA regional basis, at least 75 percent of all state submissions receiving EPA action within 90 days of submission, and at least 90 percent of all state submissions receiving EPA action within 1 year of submission. The Agency now has the management structure and internal control processes in place to continue to reduce and prevent the backlog of water quality standards. **Completed all corrective actions in FY 2006.**

SAFE DRINKING WATER INFORMATION SYSTEM (SDWIS)

In FY 2006, EPA worked diligently to complete SDWIS modernization efforts which successfully addressed three historical data quality issues: difficulty getting data into SDWIS, high costs for data processing and storage, and difficulty getting data out of SDWIS. The modernization was completed on September 30, 2005. SDWIS data quality was

identified as an Agency weakness in 1999 and has a corrective action completion target date that extends to 2007. SDWIS' weaknesses centered around five major issues: (1) completeness of the data (e.g., the inventory of public water systems, violations of maximum contaminant levels, enforcement actions) submitted by the states, (2) timeliness of the data sent by the states, i.e., if states do not report at specified times, then enforcement and oversight actions suffer, (3) difficulty receiving data from the states, (4) both cost and difficulty processing and storing data in SDWIS after it has been received, and (5) difficulty getting SDWIS data for reporting and analysis. While the modernization does not fully address data completeness and timeliness, the software applies Agency data standards as well as streamlined validation checks that allow the user to perform faster, more frequent data validations prior to submitting data to SDWIS. The Agency is



also working to better quantify the confidence levels for SDWIS data. To fully address data completeness and timeliness, EPA is adhering to a robust field audit process in the Data Reliability Plan that provides on-site data verification reviews and a state-EPA plan for data reliability improvement. The data verification reviews compare the public water system data that states have in their files and databases with the data in SDWIS. EPA enhanced the state data management software (SDWIS/STATE) to make it web accessible and easier to use. This effort has led to reduced data entry screens, simplified data entry processes, and shared-data capabilities within each primacy agency.

In FY 2007, the Agency will begin tracking the quality of data reported to SDWIS/FED and report on the two indicators that support the *2006-2011 Strategic Plan*. The Agency has streamlined its strategic targets on drinking water standards and expects to be able to calculate the percentage of communities meeting EPA drinking water standards, subject to a confidence interval, by the end of FY 2007. **Correction is scheduled for FY 2007.**

CLEAN WATER ACT SECTION 305(B) REPORTING

EPA has worked with states, federal agencies, and others in the monitoring community to improve the quality of water monitoring data and information and to improve reports on water quality that are needed by decision-makers and the public to judge progress toward CWA goals. In

April 2006, EPA issued a draft report on the Wadeable Streams Assessment that provides a statistically-valid survey of stream conditions nationwide. To keep pace with developing technologies and Agency-wide standards, EPA is making significant changes to the STORET model of data sharing. The new Water Quality Exchange system will make it easier



for partners to submit and share water quality information over the internet and provide a new analytical tool to help evaluate water quality status and trends.

The Agency's corrective action strategy focuses on strengthening state water quality monitoring programs; promoting the use of multiple monitoring approaches to answer questions about different water body types at the national, regional, state, and watershed levels to support good management decisions; improving reports on water quality conditions at the national, regional, and state levels; and ensuring that data management systems contain the needed water quality information

and are accessible to decision makers and the public. The Agency has made progress in each of these areas. **Correction is scheduled for FY 2007.**

PERMIT COMPLIANCE SYSTEM (PCS)

Since 1999, EPA has worked with the states to identify revisions needed to PCS that are critical to effective National Pollutant Discharge Elimination System (NPDES) program management and oversight. While PCS has been enhanced periodically, it relies on old technology and no longer meets the business needs of today's NPDES program. Moreover, states are increasingly proposing to develop their own systems, often multi-media integrated systems, and are reluctant to maintain data in PCS as well.

Through its modernization efforts and data quality strategy, EPA has been working with the states to improve the quality and comprehensiveness of the data and to reduce the transaction costs of state users.

While EPA has now developed and successfully implemented a modernized, national information system designed to meet the needs of today's NPDES permitting and enforcement program, not all states have been migrated from PCS to the new system (ICIS-NPDES). Currently 21 states, 2 tribes, and 9 territories are using the new system. These users are generally referred to as "direct-users," since they use ICIS-NPDES directly to manage the NPDES program.

Beginning in FY 2007, EPA will be building the batch component for the new system to allow the remaining states to electronically transfer data into the new system. The development of the batch component of the new system would allow for the submission of NPDES data from state systems to ICIS in the Extensible Mark-up Language format via the National Environmental Exchange Network and EPA's Central Data Exchange. As this is completed these states will migrate from PCS to the new system over the next few years. **Correction is scheduled for FY 2009.**

IMPLEMENTATION OF DATA STANDARDS

While the Agency has a substantive effort in place to develop data standards and provide guidance for their implementation, EPA needs to establish a process for ensuring that each data standard adopted by the Agency is fully implemented in a cost-effective and timely manner.

The Agency has made progress in addressing the implementation of data standards. In FY 2006, EPA completed five of its eight major milestones, which included promulgating a number of standards, developing and Agency-wide data architecture to guide information

management decisions, establishing a system of registries to provide a reference point of implementation of standards, developing a communications plan promoting implementation of upcoming standards, and issuing a semi-annual Data Standards "Report Card." The remaining corrective actions are on track for completion by FY 2010.

EPA's strategy to validate the effectiveness of its actions will include continuous monitoring of implementation of data standards within the Registry of EPA Applications and Databases and publishing the semi-annual Data Standards Report Card. **Correction is scheduled for 2010.**

Office of Inspector General 2006 Key Management Challenges (Prepared by the Agency's Office of Inspector General)

The table below summarizes the issues identified by OIG as the 2006 key management challenges facing EPA and the relationship of the issues to the Agency's *Strategic Plan* and to the President's Management Agenda. Following the table is a detailed discussion of the challenges, as reported in OIG's memorandum to EPA's Administrator, *EPA's Key Management Challenges*, dated April 21, 2006. The discussions include a box which presents EPA's response to the challenge.

EPA'S TOP MAJOR MANAGEMENT CHALLENGES REPORTED BY THE OFFICE OF INSPECTOR GENERAL	FY 2004	FY 2005	FY 2006	LINK TO EPA STRATEGIC GOAL	LINK TO PRESIDENT'S MANAGEMENT AGENDA
Managing for Results*: Focusing on the logic of design, measures of success (outputs and outcomes), and measures of efficiency, so that EPA programs and processes can be set up to evaluate results and make necessary changes.	●	●	●	Cross-Goal	Integrating Performance & Budget
Agency Efforts in Support of Homeland Security: Implementing a strategy to effectively coordinate and address threats.	●	●	●	Cross-Goal	Homeland Security
Data Standards and Data Quality**: Improving the quality of data used to make decisions and monitor progress, and data accessibility to EPA's partners.	●	●	●	Cross-Goal	E-Gov

EPA'S TOP MAJOR MANAGEMENT CHALLENGES REPORTED BY THE OFFICE OF INSPECTOR GENERAL	FY 2004	FY 2005	FY 2006	LINK TO EPA STRATEGIC GOAL	LINK TO PRESIDENT'S MANAGEMENT AGENDA
EPA's Use of Assistance Agreements to Accomplish Its Mission: Improving the management of the billions of dollars of grants awarded by EPA.	●	●	●	Cross-Goal	Financial Performance
Emissions Factors for sources of Air Pollution: Reliable emission factors and data are needed for targeting the right control strategies, ensuring permitting is done properly, and measuring the effectiveness of programs in reducing air pollution.			●	Goal 1	
Human Capital Management: Implementing a strategy that will result in a competent, well-trained, and motivated workforce.	●	●	●	Cross-Goal	Human Capital
Voluntary, Alternative, and Innovative Practices and Programs: Applying voluntary approaches and innovative or alternative practices to provide flexible, collaborative, market driven solutions for measurable results.			●	Cross-Goal	
Efficiently Managing Water and Wastewater Resources and Infrastructure: Current drinking water, treatment and supply, and wastewater treatment and disposal systems are wearing out and will take huge investments to replace, repair and construct facilities.			●	Goal 2	
Information Technology Systems Development and Implementation: Overseeing information technology projects to ensure they meet planned budgets and schedules.			●	Cross-Goal	E-Gov
Data Gaps: Deciding what environmental and other indicators will be measured, providing data standards and common definitions to ensure that sufficient, consistent and usable data are collected.			●	Cross-Goal	E-Gov

* In FY 2004 and 2005 Working Relationships with the States and Linking Mission to Management were consolidated into "Managing for Results."

** In FY 2004 and 2005 Information Resources Management and Data Quality were consolidated into "Data Standards and Data Quality."

MANAGING FOR RESULTS

EPA has made considerable progress in linking resource investments to results. Programs reviewed using OMB's Program Assessment Rating Tool have received improved scores. EPA plans to work with its partners and stakeholders to develop more outcome-oriented goals and intends to integrate performance and cost information more closely when developing the FY 2008 budget.

EPA needs to focus on the logic of program design, measures of success (outcomes and outputs), measures of efficiency, and ensuring that Agency programs and processes are set up so that EPA can evaluate the results and make necessary changes. As discussed above, the type and quality of the data used are key factors in determining the success of any program. This long-term challenge encompasses the Agency's work from strategic planning, through tracking what is actually accomplished, and how much it costs.

As the Agency drafts the new 2006-2011 Strategic Plan, it has the opportunity to strengthen this underlying foundation for managing for environmental results. This effort challenges all EPA offices to:

- leverage all parties' resources by coordinating EPA's mission more closely with the missions of Federal, State, and tribal partners and identify specific opportunities for eliminating gaps or conflicts;
- fully address cross-media issues;
- link goals, performance objectives, sub-objectives,

EPA's Response (Prepared by the Agency)

Over the past years, EPA has worked with stakeholders to strengthen results-based management at EPA. In FY 2006, the Agency completed its *2006-2011 Strategic Plan*, which reflects a sharpened focus on achieving measurable results and will help advance protection of human health and the environment. The Agency continues to improve the quality of its performance measures and ability to track costs, and it is making cost and performance information available to managers for operational and strategic decision making.

Highlights of progress include:

- Improved the outcome orientation of the objectives, sub-objectives, and strategic targets presented in EPA's *2006-2011 Strategic Plan*.
- Worked with the Environmental Council of the States to implement OMB's directive that requires EPA to develop standard templates for states to use to submit state grant agreements.
- Improved the Agency's annual planning and budgeting process by analyzing performance trends and cost information to establish priorities for EPA's 2008 budget. Conducted performance and budget hearings with program offices, regions, states, and tribes to review performance and identify potential efficiencies.
- Enhanced the Annual Commitment System (ACS) to track three new classes of measures (Senior Executive Service organizational assessment, state grant template, and regional priorities). The system also flags measures which contribute to OMB's Program Assessment and Rating Tool (PART) evaluations.
- Launched a new intranet website (<http://intranet.epa.gov/ocfo/acs>) to provide information on ACS developments and the annual performance commitment process.
- Developed a new detailed performance report and financial management reports through the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool (ORBIT).
- Recognized significant cost savings by retiring the Management and Accounting Reporting Systems (MARS) in FY 2006.
- Finalized the Agency's *2006-2011 Strategic Plan* by September 30, 2006.

Plans for further improvements include:

- Continue to enhance the reporting capabilities of the Agency's ACS.
- | | |
|---|--|
| <ul style="list-style-type: none"> • strategies and measures explicitly and clearly; • integrate EPA's human capital strategy into each goal; • build in considerations of risk, cost/benefit analysis, and stakeholder consultations; and | <ul style="list-style-type: none"> • incorporate the strategic goals of its regional offices in a coherent approach that demonstrates how to link local and regional environmental issues to national goals and measures. |
|---|--|

The new plan should provide a clear roadmap of substantive strategies, interim and long-term measures, and timeframes to meet its stated goals.

To evaluate program efficiency, EPA must continue improvements to track the cost of achieving environmental results. Equally important is getting EPA man-

agers to consider cost when making operational and strategic decisions. With the right information in hand, EPA can analyze and improve its performance.

AGENCY EFFORTS IN SUPPORT OF HOMELAND SECURITY

The Department of Homeland Security (DHS) maintains the lead for the unified national effort to better prepare for, prevent, and respond to potential attacks against the United States. In addition to carrying out its mission to protect human health and the environment, EPA has the important responsibility of protecting the environment from terrorist acts. EPA has developed chemical, biological, radiological, technical, and scientific expertise that enhances the ability of DHS to address potential terrorist threats.

EPA also possesses emergency response capabilities that complement the efforts of other Federal agencies. EPA's role in responding to terrorist incidents and other national emergencies, such as Hurricanes Katrina and Rita, has further defined and demonstrated the Nation's expectations of EPA's emergency response capabilities. The Public Health Security and Bioterrorism Preparedness and Response Act (Public Law 107-188) specifically tasked EPA with funding and overseeing water system vulnerability assessments and resulting emergency response plans. The National Response Plan and several Homeland Security Presidential Directives direct EPA to support and develop the preparedness of State, local, and

tribal governments, and private industry, to respond to, recover

from, and continue operations after a terrorist attack.

EPA's Response (Prepared by the Agency)

EPA plays a vital role in protecting the environment from potential threats such as chemical, biological, and radiological contamination and must be prepared to respond to these threats effectively and efficiently. To respond to growing demand, the Agency continues to coordinate and address high-priority, cross-Agency technical and policy issues related to day-to-day homeland security policies and activities. EPA currently acknowledges homeland security as an Agency-level weakness and is scheduled to close the weakness in FY 2008.

Highlights of progress include

- Developed and implemented an information technology strategy to move seamlessly from field tools to enterprise architecture. The strategy will link prevention and preparedness data to response.
- Developed a draft *Incident Management Handbook* that provides guidance on organizational structure and outlines the communications flow during an incident of national significance.
- Formed an Administrative and Finance Workgroup to address procurement, property tracking, and pay issues.
- Deployed the National Decontamination Team during the Hurricane Katrina response.
- Established a steering committee to provide oversight and leadership to the numerous workgroups that support the Agency's National Approach to Response.

Plans for further improvements include:

- Develop and implement homeland security performance measures to better define expectations and assess progress.
- Develop a "How To" manual that covers roles and responsibilities for incidents of national significance and includes pre-approved messaging templates.
- Complete the Emergency Response Equipment Data Tracking System (January 2007).
- Continue to coordinate the implementation of the 2004 CIPP.

Over the past year, OIG analyzed EPA's homeland security emergency response activities. We found that the Agency's *Emergency Response Business Plan* ("the Plan") provides a framework to address readiness for simultaneous incidents of national significance while maintaining effective "day-to-day" emergency response and removal operations. Also, the Plan briefly describes the necessary changes in the management of personnel, financial, and other resources required to address incidents of national significance readiness. However, continuing challenges remain as EPA's Office of Emergency Management finalizes the Plan to address four observations and related suggestions we identified during our analysis: (1) selecting incidents of national significance scenarios included in the Plan, (2) dealing with the conflicts inherent in preparing for incidents of national significance while maintaining an effective emergency response and removal

program, (3) specifying EPA's role in the National Approach to Response work plans, and (4) monitoring progress through the Core Emergency Response evaluation process.

The OIG also reviewed the accountability and procedures of key homeland security activities to assure they were accomplished effectively and in a timely manner. We found that EPA made limited progress in accomplishing the initiatives in its 2004 Critical Infrastructure and Key Resources Protection Plan (CIPP). The CIPP contained those actions the Agency considered essential for identifying, acquiring and protecting critical infrastructure and key resources needed to respond to emergencies. While EPA began work on 9 of the 10 major CIPP initiatives, it had not sufficiently accomplished 5, had not assigned milestones for 4 other initiatives, and did not have a system for effectively tracking counter terrorism/emergency

response (CT/ER) equipment. As a result, EPA's ability to protect public health and the environment from future terrorist attacks or other nationally significant incidents is not at the level the Agency determined necessary.

The lack of overall accountability for monitoring the CIPP delayed its implementation, and hindered EPA's efforts to obtain and protect needed CIPP assets. Furthermore, the lack of procedures for managing CT/ER equipment caused inconsistencies that could delay getting equipment to an emergency. This was apparent in EPA's response to Hurricane Katrina because needed equipment could not be located easily. EPA needs to assign responsibility for monitoring the CIPP, which is now spread across four offices, to one office that will be held accountable for all key actions, better ensuring emergency responsiveness as envisioned by the Agency.

DATA STANDARDS AND DATA QUALITY

The Agency has a substantive effort in place to develop data standards and provide guidance for their implementation, but incorporating data standards in information collections from initial plans to obtaining the data for analysis is not yet a routine activity in all programs.¹ Data standards are an essential component of EPA's information program. They promote efficiently sharing environmental information among EPA, States, tribes, and other information partners. Using common data standards among

partners ensures consistently defined and formatted data elements and sets of data values, and ensures access to more meaningful environmental data.

EPA recognizes data standards as a weakness and has developed a three-step corrective action plan involving a communication strategy that promotes the awareness of implementation documentation and best practices, tracking implementation of data standards, and a validation strategy to review progress in implementing the

standards and the effectiveness of corrective actions. Completing this plan is projected for 2010.

EPA and its partners also need to continue to focus on ensuring that data are of sufficient quality for decision-making. For example, EPA considers data quality for drinking water as an Agency-level weakness and has a corrective action completion target date that extends to 2007.² OIG evaluation and investigative activities involving laboratories' analysis of drinking water samples

continue to raise concerns with the integrity of sample results. Without any national studies of water quality data that include examining laboratory integrity, the full extent of the problem remains unassessed. Given the potential impact of poor quality data on human health, EPA should assess drinking water laboratory integrity and incorporate promising techniques to identify improper practices and fraud into the required elements of the laboratory oversight process.

Also impacting the data quality issue is the need for policies and procedures for approving electronic reporting systems under the Cross-Media Electronic Reporting Rule (CROMERR). CROMERR is intended to permit and encourage using electronic reporting that reduces the cost and burden of data transfer and maintenance, improves data quality and availability, and maintains the level of corporate and individual responsibility and accountability for electronic reports and records that exist in the paper environment.³ The integrity and quality of electronic reports are essential. Inconsistencies in deploying these systems could place at risk the continued viability of self-monitoring and self reporting that provide the framework for

compliance under most EPA environmental programs. Therefore, EPA should take further steps to ensure consistent approval of electronic reporting systems throughout EPA.⁴⁵ In addition, EPA has reconsidered its approach to electronic record keeping and is not issuing final record keeping

rules at this time.⁶ Enforcement activities rely on the availability of electronically submitted documents needed to prosecute enforcement violations. Therefore, EPA should take steps to continue its efforts to address the “Record Keeping” portion of the rule.⁷

EPA's Response (Prepared by the Agency)

The Agency currently has an organizational structure for the review and approval of electronic reporting systems operated by EPA and authorized state, tribal, and local government programs. The CROMERR approval process has been in place for several months, and there is no evidence that approvals might be inconsistent. EPA has also put additional management controls in place to address laboratory quality system practices. NOTE: A discussion of the progress EPA has made in the area of data standards can be found in the preceding section on Agency-level weaknesses.

Highlights of progress include:

- Developed draft standard operating procedures for the Technical Review Committee.
- Developed CROMERR guidance, which includes a system checklist and a set of examples on approaches to CROMERR-compliant e-reporting.
- Developed a tracking system for CROMERR approvals.
- Agency laboratories must demonstrate on-going performance through independent external assessments and participation in inter-laboratory comparison studies (policy directive Feb. 2004).

Plans for further improvements include:

- Provide a fact sheet for existing EPA systems that are working on CROMERR compliance.
- Develop a step-by-step guide for program system managers to determine if they are compliant with the electronic reporting rule.

EPA'S USE OF ASSISTANCE AGREEMENTS TO ACCOMPLISH ITS MISSION

Since 1996, EPA has reported Management of Assistance Agreements as a material or agency weakness under the Federal Managers Financial Integrity Act.⁸ EPA awarded more

than half of its fiscal year 2005 obligations to organizations through assistance agreements. The work involved is critically important to fulfilling EPA's mission; it is imperative that the

Agency use good management practices in awarding and overseeing these agreements to ensure they cost-effectively contribute to attaining environmental goals. EPA has taken action to improve

its management of grants and to address issues in OIG reports. Two areas where continued emphasis is needed are incorporating environmental results into grants and holding project officers and their supervisors accountable for effective grants management.

Since January 2005, EPA policy has been to link grants to the strategic plan and ensure that work plans contain well-defined outputs and, to the maximum extent practicable, well-defined outcomes. The Agency needs to continue its work to define environmental measures for its activities, so that the measures can be incorporated into grant documentation. An agency evaluation of non-competed grants in 2005 showed that many grant work plans (77 percent) included a discussion of outcomes, but only a small percentage (17 percent) included quantifying outcomes.

EPA also needs to continue to emphasize accountability for managing grants in accordance with policies and procedures. In September 2005, the OIG reported that while EPA had made progress in establishing accountability, managers did not sufficiently hold supervisors and project officers accountable for grants management because no process existed to measure most grants management activities. Managers and supervisors generally did not discuss grants management responsibilities during year-end evaluations. In the limited cases where grants management weaknesses were identified, managers did not effectively communicate these weaknesses to staff.⁹

EPA's Response (Prepared by the Agency)

EPA has made significant progress in addressing issues raised by OIG and GAO. The Agency has adjusted its corrective action and internal controls as necessary to further the principles of accountability, transparency, and results. In FY 2003, EPA issued its first long-term Grants Management Plan, with associated performance measures, to map the Agency's approach for improving grants management. The Agency is continuing to implement this plan. EPA currently acknowledges assistance agreements as an Agency-level weakness and is scheduled to close the weakness in FY 2007.

Highlights of progress include:

- Subjected 92 percent of new grants to the revised competition policy, exceeding the performance goal set in the Grants Management Plan.
- Conducted pre-award administrative capability reviews of nonprofit grant applicants as a way to detect and resolve problems before grants are awarded.
- Significantly improved the timeliness of grant closeouts. This effort will lead to a reduction in unliquidated obligations.
- Implemented a statistical approach for selecting grantees for administrative post award monitoring reviews that will provide the Agency with more precise information on grants management deficiencies.
- Provided training to headquarters users on the Integrated Grants Management System.

Plans for further improvements include:

- Enhance the Agency's employee performance evaluation system to require that grants management performance measures be incorporated into the performance standards of project officers, supervisors, and managers with grants management responsibilities.
- Require all managers and supervisors to complete the on-line grants management training before approving grant awards.
- Require baseline monitoring for all grants documented in the Agency's Integrated Grants Management System.
- Implement the Agency's "Green Plan" to integrate grants with financial data and eliminate duplicate data entry.

EPA agreed with the report's recommendations and developed a twelve-step corrective action plan to be completed by February 2008. The final step is to conduct 2007 performance reviews using new grants management performance measures. EPA established a Performance Measures Workgroup

to develop the 2007 performance measures by October 2006. The Workgroup is also exploring options for creating new performance recognition and incentive programs for individual project officers and supervisors to encourage excellence in grants management.

EMISSIONS FACTORS FOR SOURCES OF AIR POLLUTION

EPA; State, local, and tribal agencies; industries; environmental groups; and others use emissions factors to develop the emissions data that are the cornerstone of many important environmental decisions.¹⁰ Emissions factors are used for about 80 percent of emissions determinations for sources of air pollution.¹¹ These decisions include facility permitting, developing control strategies, making compliance and enforcement decisions, measuring environmental progress, and demonstrating program results under the Government Performance and Results Act.¹² Without reliable emissions factors, users cannot be sure that (1) air pollution control strategies target the right industries or products, (2) permitting programs include all required sources and establish proper emission limits, and (3) air programs are effective in reducing air pollution.¹³

The Agency faces significant challenges in improving emissions factors. A recent OIG evaluation found (1) conflicting guidance on appropriately using emissions factors, (2) a rating system that did not quantify the uncertainty associated with the emission factor, (3) inadequate funding of the emissions factor program, and (4) the lack of a comprehensive plan to improve data collection and set emissions factor priorities.¹⁴ These management-related issues contribute to impairing emissions factor development, and hamper achieving the Clean Air Act's requirements and major air program goals.¹⁵

As a result, emissions factors are being inappropriately used for

key environmental decisions.¹⁶ For example, emissions factors are being used for non-inventory purposes, such as setting permit limits and reporting the level of air pollution control at specific facilities.¹⁷ For three industry sectors EPA examined, inappropriately using emissions factors contributed to more than 1 million tons of pollutants not being controlled.¹⁸ EPA guidance states that the user must take into account the uncertainty of the emission factor when considering its use;¹⁹ however, emission factor uncertainty is little understood, leading to inappropriate uses.²⁰ As one example, because

the fiberglass industry believed EPA emissions factors were overestimating their emissions, it developed new emissions factors.²¹ As a result, their improved emissions factors increased the estimated emissions for the fiberglass industry by about 100 percent.²²

EPA is shifting its efforts toward more direct, continuous monitoring and measuring emissions from all major emissions sources.²³ However, increased demand for low-cost quality environmental data is driving the need for more quality emissions factors.²⁴ Factors will continue to be

EPA's Response (Prepared by the Agency)

EPA and its stakeholders use emissions factors to make about 80 percent of emissions determinations for sources of air pollution and rely on them for other environmental decisions as well. The Agency is making it easier for industries to transform their emissions data into emissions factors and to transmit them to state and federal reviewers quickly.

Highlights of progress include

- Developed the Electronic Reporting Tool to provide an electronic version of emissions test plans and test reports.
- Launched WebFIRE, an interactive website of the emissions Factor Information Retrieval System that combines AP-42 and FIRE data so that users are no longer required to conduct independent checks while searching for emission factors (see <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>).
- Conducted an analysis on determining the uncertainty of highly-rated emissions factors.

Plans for further improvements include:

- Enhance WebFIRE to allow users to independently check and verify background information for emissions factors.
- Provide the results of the uncertainty analysis to external partners for review and comment.
- Develop emissions factors for coke ovens, landfills, municipal waste combustors, steel mini-mills, landing losses for external floating roofs, and low pressure petroleum storage tanks.
- Initiate development of emissions factors for natural gas engines, rubber manufacturers, and animal feeding operations.

used for a broad array of environmental decisions, including measuring and reporting environmental progress.²⁵ If EPA can improve the quality of its factors, this should improve environmental decision-making for reducing air pollution.²⁶ However, if EPA continues to use insufficient

measures to determine program results, the Agency may not be reaching the goals it has claimed to reach, the air may not be as clean as the Agency claims,²⁷ and EPA and States may make misinformed selections regarding the most promising future actions to improve air quality.²⁸

EPA's challenges are to limit the decisions being made with poor quality emissions factors, and provide significant non-regulatory incentives to industry, State, or local agencies to provide EPA with the data it has long sought to improve the quality of emissions factors.²⁹

HUMAN CAPITAL MANAGEMENT

Maintaining a highly skilled, diverse, results-oriented workforce is vital to successfully accomplishing EPA's mission. EPA faces challenges in developing, attracting, and sustaining this type of workforce. Like many Federal agencies, EPA is trying to maintain its workforce as the number of employees eligible to retire increases.³⁰ EPA recognizes the importance of implementing a workforce planning system, supported by reliable and valid workforce data, to ensure that it hires the right number and type of people, and allocates resources to meet mission needs.³¹

In FY 2005, EPA reported Human Capital Strategy Implementation/Employee Competencies as an Agency weakness with a planned closure date in fiscal year 2006.³² EPA's corrective action strategy for eliminating human capital (HC) management as an Agency weakness includes actions to address workforce planning and human capital accountability among other efforts.

Workforce Planning. EPA issued its first comprehensive Strategic Workforce Plan (SWP) in March 2006, which presents a national-level approach to workforce planning for the Agency. This

SWP provides data and focuses on developing, implementing, and

evaluating activities for meeting the Agency's future workforce

EPA's Response (Prepared by the Agency)

EPA is working closely with OMB and the Office of Personnel Management (OPM) to align the Agency's Human Capital Strategy to meet the objectives outlined in the PMA as it relates to the Strategic Management of Human Capital. Developing and implementing a comprehensive strategic workforce planning model and development strategy will address concerns identified. EPA currently acknowledges human capital as an Agency-level weakness and is scheduled to close the weakness in FY 2008.

Highlights of progress include:

- Completed and distributed comprehensive Agency Strategic Workforce Plan, based on local level workforce plans and an Agency-level workforce analysis.
- Completed an assessment and gap analysis of competencies for human resources specialists, information technology specialists (IT), and senior leaders and developed a strategy to close gaps.
- Continued progress in closing competency gaps for IT specialists.
- Worked with four federal agencies to develop a shared competency-based approach to developing and measuring collaboration and partnering competencies.
- Developed and implemented an Agency Plan for Strategic Leadership Succession.
- Focused recruitment and outreach efforts on the Agency's Mission Critical Occupations.

Plans for further improvements include:

- Track and assess program and regional workforce plans to ensure alignment with the Agency's workforce plans and strategic goals.
- Continue to monitor and report on progress of EPA's human capital initiatives to assess the overall effectiveness of the Agency Strategy for Human Capital and to determine whether EPA is achieving its desired human capital results.

needs and, as appropriate, controlling workforce costs. It presents a framework that will guide all of EPA's future workforce development activities. The process as shown in the SWP includes four primary activities that EPA needs to complete: identifying high priority competencies needed to achieve Agency goals, completing an inventory of the current workforce, comparing what exists to what is needed and identifying gaps, and developing strategies and solutions to close identified gaps.

The SWP recognizes the reality of tight budgets as one of the drivers that will influence the

nature or emphasis of EPA's work. EPA will need to impose greater rigor in focusing on priorities and managing limited human capital resources to achieve continued improvements in environmental and human health protection.

Human Capital Accountability.

In September 2005, EPA issued the Human Capital Accountability Plan for Achieving Results that focuses on both results and the accountability process needed to drive EPA toward achieving HC goals. The Plan also describes how the Agency evaluates its headquarters and regional HC operations for effectiveness, efficiency, and

compliance with Merit System Principles and the laws and regulations that support them.

On the President's Management Agenda scorecard for the second quarter of FY 2006, OPM indicated that EPA continued to make progress in developing performance appraisals and workforce planning. EPA received "Green in Progress" for its accomplishments during this quarter.³³ However, EPA must now evaluate the results of the HC initiatives over time and adjust its strategy as necessary to ensure the Agency meets its HC goals.

VOLUNTARY, ALTERNATIVE, AND INNOVATIVE EPA PRACTICES AND PROGRAMS

EPA supports and advocates a range of voluntary programs, and innovative or alternative practices, designed to provide flexibility and novel and beneficial approaches to achieve environmental goals. The basic premise of voluntary approaches is flexible, collaborative, market-driven solutions that can deliver measurable environmental results. These programs primarily work with business, community or other partners to either reduce pollution below regulatory requirements, or ameliorate environmental problems not otherwise regulated by EPA (e.g. water and energy use, recycling). In 2002, EPA released an innovation strategy that described EPA activities and priority issues.

Significant and noteworthy examples of successful innovative or voluntary practices and programs exist. For example, "Energy Star," one of EPA's flagship volun-

tary programs, is recognized by more than 60 percent of the American public and results in reduced energy consumption, as well as consumer savings on utility bills. EPA's recent "Good Samaritan" initiative can provide private, and innocent, landowners the ability to voluntarily clean up pollution from abandoned mine sites, without fear of Superfund liability. This innovative approach holds promise for restoring and protecting watersheds that could otherwise remain contaminated due to private party concerns about Superfund cleanup liability.

Voluntary programs and innovative or alternative approaches hold promise and need to be encouraged. However, their growth has not been matched by efforts or processes to define the programs, determine which programs work, how efficiently they work, or how to determine the respective goals and expectations

of voluntary programs or alternative approaches compared to regulated programs and approaches. The challenge this poses for EPA is to overcome its inability to fully articulate or measure the results of voluntary programs or innovative and alternative approaches. In 2002, the National Academy of Sciences reported that rigorously evaluating voluntary programs is important because of the historical failure of markets and voluntarism to address environmental problems, and because resource depletion creates a heavy burden of proof for those who advocate voluntary alternatives to regulation.

Clearly, EPA must be innovative and flexible, and adapt to changes in environmental protection, to move forward and continue progress toward environmental goals. The challenge is to maintain those vital elements of the existing system, such as the

standards, permits, and compliance assurance efforts that are part of EPA's basic mandate, while simultaneously pursuing creative new tools and approaches that complement and enhance the Agency's efficiency and effectiveness.

In 2004, the Innovation Action Council was charged with voluntary program oversight and created the Voluntary Program Coordination team. This team has issued several guidance documents and has attempted to stay in regular contact with many of the voluntary programs. However, it does not have Agency-wide oversight authority to conduct day-to-day management functions, or to develop management procedures, measurement protocols, or outcome reporting requirements. EPA can take steps to address these oversight, evaluation, and management challenges to maximize potential environmental benefits of voluntary, innovative, and alternative approaches.

EPA's Response (Prepared by the Agency)

EPA's Innovation Action Council (IAC), which directs and oversees the Agency's innovation agenda, has a number of efforts underway to clarify the goals and measures and evaluate the results of innovative and "voluntary" partnership programs. While it does not have the authority to manage or oversee voluntary programs, the IAC, supported by the National Center for Environmental Innovation, has established workgroups on Performance Management, Voluntary Partnership Programs, and Environmental Stewardship.

Highlights of progress include:

- Conducted a needs assessment to identify what additional information, tools, or services would be helpful in improving the design, measurement, and evaluation of innovative and other programs.
- Developed guidance which promotes a strategic approach to program evaluation and encourages innovative programs to participate in EPA's annual Program Evaluation Competition.
- Develop a notification system to ensure that proposed new or significantly redesigned partnership programs undergo a basic level of Agency-wide review.

Plans for further improvements include:

- Continue implementing the three areas of the needs assessment (design, measurement, and evaluation).
- Implement a new information collection request that will enable a number of voluntary programs to collect data critical to evaluating their impacts and effectiveness.
- Develop an Agency-wide partnership program accomplishments report to summarize and aggregate the overall environmental results achieved by these programs.

EFFICIENTLY MANAGING WATER AND WASTEWATER RESOURCES AND INFRASTRUCTURE

America's water assets are critical to the country's public health and economic, environmental, and cultural vitality. About 160,000 public drinking water systems and 16,000 sewage treatment plants throughout the Nation supply fresh water and remove and treat used water. Over the past 20 years, communities have spent more than \$1 trillion (in 2001 dollars) on drinking water treatment and supply, and wastewater treatment and

disposal. Still, these systems are projected to have huge costs to repair, replace, and construct new water infrastructure. Current systems are wearing out, and recent and future environmental requirements from EPA will necessitate additional investments. In 2002, EPA estimated the 20-year water infrastructure capital needs as ranging between \$485 billion and \$896 billion.

EPA has had a two-pronged approach to influencing this gap.

It annually commits funding to the Clean Water and Drinking Water State Revolving Funds (SRFs) to ensure that communities have access to capital for their drinking and wastewater infrastructure needs. The 2007 President's Budget proposes \$688 million for the Clean Water SRF and \$841.5 million for the Drinking Water SRF. These amounts are less than previous years and will play a limited role in meeting overall needs. EPA has

approached this challenge by focusing on its “Four Pillars of Sustainable Infrastructure”—better management, water efficiency, full cost pricing, and the watershed approach.

While EPA hopes to build upon these pillars using the tools of technology, innovation, and collaboration, it is faced with the challenge of trying to do more with less. It has to find ways to be more innovative on the finance and management fronts to assist States and communities in overcoming infrastructure issues. OIG work on such topics as Drinking Water Protection Efforts, Source Water Protection, Combined Sewer Overflows and State Revolving Funds have all found funding to be a significant barrier to progress. Our work has shown that a competition exists between infrastructure and other priority water needs (e.g. drinking water source protection, regulatory program implementation, security.) for the limited available SRF money. Funding requirements can be more difficult for small systems to meet, impeding their ability to obtain much needed resources.

The Agency faces a continuing challenge to find ways to reach and influence the management behavior, skills, and abilities of thousands of small utilities. Preparing and publishing documents, and convening workshops reach only a small portion of the

systems that need EPA’s expertise. Recent OIG work shows that lack of long-term planning, management and operator competencies and retention, and problems understanding regulations continue to be challenges for small utilities. Good practices, such as mentoring programs by larger utilities, show promise for wider application to benefit small

utilities and could help address the management issues that are a component of the water infrastructure challenges. EPA needs to define its role as part of a long-term national strategy on sustainable water infrastructure that addresses financial and management issues, so that the Nation’s water quality is protected now and in the future.

EPA’s Response (Prepared by the Agency)

EPA has taken, and will continue to take, effective steps to define its role in closing the gap in funding for water infrastructure and assisting states and communities in overcoming infrastructure issues. The Agency is incorporating the four pillars of its Sustainable Water Infrastructure Initiative—better management, full cost pricing, water efficiency, and the watershed approach—into existing programs and redirecting funds toward this initiative.

Highlights of progress include:

- Launched WaterSense, a market enhancement program that is increasing national awareness of water-efficient choices and the value of clean and safe water. (see <http://www.epa.gov/watersense/index.htm>)
- Co-sponsored the Water Quality Trading Conference with USDA that brought together companies and the agricultural community to build further momentum for trading programs that maximize impact from infrastructure investments.
- Continued to produce assistance documents and tools targeting the needs and special circumstances of small utilities (e.g., Simple Tools for Effective Performance [STEPS]^d and Total Electronic Asset Management Software [TEAMS]).

Plans for further improvements include:

- Develop an internal strategy that focuses on better management of wastewater for small communities and disadvantaged and underserved populations.
- Prepare a Drinking Water Capacity Development Strategic Plan to ensure that the Agency’s outreach efforts to small utilities are well coordinated and effective.

INFORMATION TECHNOLOGY SYSTEMS DEVELOPMENT AND IMPLEMENTATION

EPA requested approximately \$600 million in system development/maintenance funding for fiscal years 2006 and 2007.³⁴ The Agency has experienced system development and implementation problems similar to those encountered by other Federal agencies. Recently, we reported that the EPA did not sufficiently oversee information technology (IT) projects to ensure they met planned budgets and schedules. For example, PeoplePlus, EPA's new combined human resources, payroll, and time and attendance application, cost at least \$3.7 million more than originally budgeted and took 1 year longer than planned to deploy. The cost of the Clean Air Markets Division Business Systems' development has increased by approximately \$2.8 million and the target completion date has been extended by 2 years.³⁵

Among EPA's numerous system projects, two financially related information system efforts have Agency-wide implications—migrating EPA's payroll processing functions to the Defense Finance and Accounting Service and replacing its core financial accounting system. Modernizing any major system will never be a risk-free proposition; the Government Accountability Office (GAO) has reported that the Federal government has long been plagued by financial

EPA's Response (Prepared by the Agency)

In response to concerns noted and audit findings and recommendations in OIG's September 2005 report, EPA developed an action plan calling for formal delegation of independent oversight responsibility and an additional question in the CPIC process focusing on System Life Cycle documentation and approvals. The plan also calls for increased emphasis on reviewing solutions architecture documents and an outreach and education program for senior management and Senior Information Officials.

Highlights of progress include:

- Issued a revised System Life Cycle Management Policy.
- Developed Enterprise Architecture Governance Procedures that require review, approval, and certification that solutions architectures are aligned with both federal and EPA enterprise architectures.

Plans for further improvements include:

- Continue to conduct outreach briefings with senior management.
- Review information submitted in response to the CPIC question on System Life Cycle documentation and approval.

management system modernization efforts that have failed to meet their cost, schedule, and performance goals.³⁶

The EPA Chief Information Officer has taken steps to strengthen EPA's Capital Planning and Investment Control (CPIC) and system development processes by:

- updating its CPIC policy to ensure that the process for managing information technology investments is consistent with Federal statutes, regulations, and policies, and supports the Agency's System Life Cycle and Enterprise Architecture requirements³⁷;

- publishing an interim Agency System Life Cycle Management Policy³⁸; and
- promulgating procedures for EPA offices to utilize Earned Value Management for its IT projects.³⁹

EPA needs to further enhance its IT investment control structure and hold system managers accountable for following it. Revisions to the Interim Policy to define requirements for life cycle documentation and ensuring that system managers follow established procedures are just two examples of steps that should be taken.

DATA GAPS

If EPA is to manage for results, it needs to decide what environmental and other indicators will be measured; provide data standards so that organizations responsible for delivering environmental programs are measuring what is important and are using common definitions; and ensure that data are of sufficient quality for effective decision making. OIG audits and evaluations have also pointed out that data to measure program success are not always present.

EPA's FY 2005 Performance Report and the latest draft of the Report on the Environment 2007 demonstrate the utility and value of environmental indicators for accountability and tracking environmental progress. Some important environmental results information is already being captured, such as trends in wetlands acreage, statistically representative baselines for the condition of the Nation's coastal waters and small streams, concentrations of ozone-depleting chemicals in the lower atmosphere, and baselines for the number of Superfund National Priorities List sites and Resource Conservation Recovery Act high priority corrective action sites where offsite migration of contaminated groundwater is or is not occurring. Such information helps EPA managers make more effective and efficient resource investment decisions.

While some important data exist, EPA and its partners are not

EPA's Response (Prepared by the Agency)

As part of its strategic planning, EPA continues to implement and refine processes to identify and prioritize data gaps, including coordinating the draft Report of the Environment (ROE) with the Agency's strategic planning and budgeting process.

Highlights of progress include:

- Completed gaps analysis and documentation.
- Developed a process for identifying and ranking key data gaps.
- Prepared an options paper addressing ROE indicators and data gaps for the Indicators Steering Committee (ICS).
- Developed a pilot (endorsed by ICS) that assesses how the ROE and strategic planning efforts can best inform and support one another.

Plans for further improvements include:

- Analyze and discuss ROE indicator gaps and limitations.
- Further refine the process to identify and prioritize data gaps identified in the ROE as part of the Agency's strategic and budget planning process.
- Continue to use existing interagency forums, such as the Global Earth System of Systems and the Collaboration on Indicators in the Nation's Environment, to identify how and where existing efforts can be leveraged among partners.

yet engaged in an effort to ensure that high priority data gaps are filled and that data deemed important will be collected in the future. Most indicators rely on data gathered by the States, other Federal programs, and the private sector. Increasing budgetary pressures at the State and Federal levels may threaten the future collection and analysis of such data. For example, many indicators in the draft Report on the Environment 2007 are based on land use/land cover data that are already 15 years old. Such information needs to be updated.

Addressing data gaps will require a coordinated effort by EPA and its partners involving extensive collaboration during both budget preparation and strategic prioritization activities. EPA plans additional actions to address this challenge. We understand that during the development of the 2006-2011 *Strategic Plan*, the Agency will identify data gaps by building on the information in the draft Report on the Environment 2007. Progress will then be reported to the Quality Information Council and the Chief Financial Officer on a regular basis.

NOTES

1. Attachment 2, p. 2, regarding OEI's Weaknesses for a 10/5/05 Management Integrity Meeting, Office of Environmental Information FY 2005 Integrity Act Report, Implementation of Data Standards.
2. EPA's FY 2005 Performance and Accountability Report, Appendix C, Data Quality, p. C18.
3. Federal Register, Part III Environmental Protection Agency, Cross-Media Electronic Reporting: Final Rule, p. 59849, Section I Overview.
4. EPA Procedure: Office of Information Collection Cross-Media Electronic Reporting Rule (CROMERR) Implementation Procedures for EPA Systems, March 22, 2006.
5. EPA Procedure: Procedure for Approval of State, Tribal or Local Government Delegated Program Allocations for Implementing the Cross-Media Electronic Reporting Rule (CROMERR), March 22, 2006.
6. Federal Register, Part III EPA, Cross-Media Electronic Reporting: Final Rule, p. 59851, Section I Overview, Letter C.
7. Federal Register, Part III EPA, Cross-Media Electronic Reporting: Final Rule, p.59851, Section I Overview. Letter C.
8. *Additional Efforts Needed to Improve EPA's Oversight of Assistance Agreements*, Report No. 2002-P-00018, September 30, 2002.
9. *EPA Managers Did Not Hold Supervisors and Project Officers Accountable for Grants Management*, Report No. 2005-P-00027, September 27, 2005.
10. *EPA Summary of Emissions Factors Improvements Projects Fact Finding Survey*, June 2004, p. 1.
11. GAO Report # GAO-01-46 *EPA Should Improve Oversight of Emissions Reporting by Large Facilities*, April 2001 p. 3.
12. *EPA Summary of Emissions Factors Improvements Projects Fact Finding Survey*, June 2004, table 2.
13. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, At a Glance.
14. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, pp. 15-24.
15. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, pp. 15-24; Memorandum: Inspector General's Candidates for Fiscal 1996 Weaknesses, To: Sallyanne Harper, Acting Chief Financial Officer, Attachment 2 of 9.
16. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, At a Glance.
17. *Ibid.*
18. *Ibid.*
19. "Procedures for Preparing Emission Factor Documents," EPA-454/R-95-015 revised, Office of Air Quality Planning and Standards, Office of Air and Radiation, U.S. Environmental Protection Agency, November 1997 pg 8; Introduction to AP-42, Volume 1, Fifth Edition—January 1995, pp. 4-5.
20. Document entitled "3.0 Options for Revising Factor Quality Assessments" prepared by MACTEC for Emission Factors and Policy Application Group, EMAD, OAQPS, OAR, August 2004 pp. 2-4.
21. e-mail Response from Indiana Department of Environmental Management, September 22, 2005.
22. *Ibid.*
23. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, p. 32.
24. Document prepared for OIG, prepared by Emission factors and Policy Application Group, EMAD, OAQPS, OAR, January 6, 2005; OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, p. 35.
25. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, p. 35.
26. *Ibid.*
27. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, p. 25.
28. *Ibid.*
29. OIG Report No. 2006-P-00017: *EPA Can Improve Emissions Factors Development and Management*, pp. 17, 18, 19, 23, 25, OIG opinion.
30. EPA's FY 2005 Human Capital Accomplishments Report, Attachment, p. 3.

31. FY 2005 HR Integrity Act Report, p. 1.
32. FY 2005 OARM Assurance Letter, p. 8 and HR Integrity Report, p. 1.
33. EPA's PMA Scorecard for the quarter ending December 31, 2005.
34. OEI email *Total Dollars for Major IT Investments in the Development Phase of the System Life Cycle*, March 31, 2006.
35. Report No. 2005-P-00023, *EPA Needs to Improve Oversight of Its Information Technology Projects Report*, September 14, 2005, p. 4.
36. GAO Report No.06-184, *Financial Systems Modernization*, March, 2006, pp. 1, 3.
37. CIO Policy Transmittal 06-003, Classification No.: 2100.3, Capital Planning and Investment Control (CPIC) Program Policy for Management of Information Technology (IT) Investments, December 15, 2005, p. 1.
38. Interim EPA Order 2100.4, Interim Agency System Life Cycle Management Policy, December 29, 2003, p. 1.
39. EPA, Earned Value Management (EVM) Procedures, Addendum To CPIC Procedures, December 2005, p. 1.