DOE/IG-0509

AUDIT REPORT

INTEGRATED PLANNING, ACCOUNTABILITY, AND BUDGETING SYSTEM-INFORMATION SYSTEM

JUNE 2001

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDIT SERVICES

U. S. DEPARTMENT OF ENERGY
Washington, DC 20585

June 28, 2001

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman (Signed)
Inspector General

SUBJECT: INFORMATION: Report on the Integrated Planning, Accountability, and Budgeting System - Information System

BACKGROUND

The Department of Energy (Department) is responsible for the world's largest environmental remediation program resulting from the legacy of this Nation's nuclear weapons program and government-sponsored nuclear energy research activities. About $6 billion, or one-third of the Department's annual budget, is devoted to this critical mission component.

To support its mission, the Department's Office of Environmental Management (EM) developed a corporate-level project management system known as the Integrated Planning, Accountability, and Budgeting System - Information System (IPABS-IS). This system, coupled with the EM Corporate Database, was to provide a centralized means to collect, store, and report program information. Through the end of Fiscal Year (FY) 2000, EM had spent about $6 million for development and operation of the system.

The objective of our audit was to determine whether IPABS-IS satisfied information technology (IT) architecture requirements and was meeting users' information needs and Department goals.

RESULTS OF AUDIT

IPABS-IS was not integrated into the Department's Corporate Systems Information Architecture; did not fully satisfy Department goals; and perhaps of greatest importance, did not meet users' information needs. This despite the fact that IPABS-IS was only the latest in a series of attempts to develop and operate a corporate-level information system. The audit disclosed that the Department did not actively manage the system's development. In short, Clinger-Cohen Act requirements to maximize the value of IT investments by closely monitoring and integrating development projects into an agency-wide IT architecture were not met. As a result, the Department spent about $6 million for a corporate-level information system that does not fully satisfy management information needs.

We also reported that the Department could potentially save over $770,000 by utilizing existing internet hosting capacity rather than resorting to open-market procurements.

MANAGEMENT REACTION

We proposed a number of actions designed to improve system development efforts. Management generally agreed with our recommendations and proposed corrective actions. Management, however, took exception to our recommendation to develop specific performance measures relating to IT systems development and operation. Management believed that including measures for a relatively small, mission-related system development effort, when compared to overall program budget dollars, would be misplaced in the Department's Annual Performance Plans. We disagree. It is our opinion that focused, system specific performance measures provide management with a valuable tool for monitoring and controlling project development efforts. In the context of EM's mission, this will ultimately facilitate the Department's site closure and restoration efforts.

During the course of the audit we issued an alert to management that described problems related to the acquisition of goods and services through the Government Purchase Card program. Management concurred with our findings and initiated corrective actions.

Attachment

cc: Deputy Secretary
Under Secretary
Acting Assistant Secretary for Environmental Management
Acting Chief Information Officer

INTEGRATED PLANNING, ACCOUNTABILITY, AND BUDGETING SYSTEM-INFORMATION SYSTEM

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OVERVIEW

INTRODUCTION AND OBJECTIVE

The Department of Energy (Department) is responsible for the world's largest environmental clean-up program. Within the Department, Environmental Management (EM) has been entrusted with the mission of managing and cleaning up the environmental legacy of the nation's nuclear weapons program and government-sponsored nuclear energy research activities. EM's operations are spread across the country and are largely performed by contractors who operate government-owned facilities. EM spends about $6 billion annually, or approximately one-third of the Department's budget, to carry out its critical mission.

EM spends about $95 million on information technology (IT) annually to support program efforts. Included in this amount for IT investment were expenditures for the Integrated Planning, Accountability, and Budgeting System - Information System (IPABS-IS). This system, along with the EM Corporate Database, provided a centralized means to collect, store, and report program information. The system was developed as a corporate-level information system solution for program management and was to ensure that:

- Information provided to stakeholders was accurate, timely, complete, and in accordance with agreements;
- Accurate and complete information was provided to Congress and taxpayers about the remaining environmental clean-up liability and contractor performance; and
- EM officials were provided with the information necessary to ensure effective program performance.

In Fiscal Year (FY) 1999, EM spent about $2 million on development and operation of IPABS-IS. In Fiscal Years 2000 and 2001, EM budgeted about $2 million and $1 million respectively for development and operation of the system. However, as of the end of Fiscal Year 2000, EM spent over $4 million for development and operation of the system excluding Federal effort.

The objective of our audit was to determine whether IPABS-IS satisfied IT architecture requirements and was meeting users' information needs and Department goals.

CONCLUSIONS AND OBSERVATIONS

IPABS-IS was not integrated into the Department's Corporate Systems Information Architecture (CSIA) and did not fully satisfy Department goals and meet users' information needs. Despite prior attempts at developing and operating a corporate-level information system solution,

the Department did not integrate this system's development into its information technology architecture project. As a consequence, there were project management and security weaknesses in the development and operation of IPABS-IS that impacted its ability to satisfy Department goals and meet users' information needs. The Clinger-Cohen Act of 1996 and Office of Management and Budget directives required that agencies maximize the value of IT investments by monitoring and integrating development into an agency-wide IT architecture. Contrary to these requirements, the Department did not actively manage or closely monitor the system's development. As a result, EM spent about $6 million for a corporate-level information system solution that does not fully satisfy management information needs and may not achieve the Department's architecture goals. In addition, the Department could potentially save over $770,000 by utilizing existing capacity instead of outsourcing required computing services over the projected remaining life of the system.

Management should consider the issues discussed in this report when preparing the yearend assurance memorandum on internal controls.

(Signed)
Office of Inspector General

Architecture Integration and System Development Need Improvement

IPABS-IS was not integrated into the Department's Information Architecture and did not fully meet users' information needs and Department goals. Despite prior attempts at developing and operating a corporate-level information system solution, the Department did not integrate this system's development into its information technology architecture project. Specifically, the Department expended about $31 million for predecessor systems that were either transitional, did not satisfy user needs, or never became fully operational. Even though information architecture guidelines were in place and available for use, the Department did not require the IPABS-IS development effort to adopt this disciplined approach to development. As a consequence, there were project management and security weaknesses in the development and operation of IPABS-IS that impacted its ability to satisfy Department goals and meet users' information needs.

Corporate Systems Development History

A number of past attempts by the Department to develop and operate a corporate-level information system solution for the management of environmental activities have not been successful. For example, the U.S. General Accounting Office reported in September 1992, that the Department spent eight years and about $24 million dollars developing a system that did not satisfy management needs. From 1994 to 1997, EM proceeded with the design and development of the Program Management and Control (PMC) system. Despite the expenditure of over $5.8 million and three years of effort, the development of this system, which would have provided information for managing and reporting on environmental and waste management activities, was terminated prior to becoming fully operational. Following the decision to terminate PMC in 1997, EM expended more than $700,000 for the development and operation of an interim system whose functionality was incorporated into IPABS-IS. We were unable to obtain specific formal justification or supporting documentation for the cancellation of PMC.

Architecture Integration

Despite unsuccessful attempts at developing and operating a corporate-level information system solution, the Department did not integrate IPABS-IS development into its information technology architecture project. The information technology architecture project was to change the way the Department manages IT by fundamentally restructuring how decisions were made for corporate systems. Investments in

corporate systems were to be justified based on a corporate view and rigorous methodology. The project's vision was to ensure that applicable provisions of the Clinger-Cohen Act were met and that cross-cutting business functions were identified and not duplicated by multiple corporate-level systems. While IPABS-IS was a significant corporate-level information system that was initially considered for inclusion in the Department's projected $220 million architecture project, it was never formally integrated into the project.

Development and Operational Weaknesses

Project management and security weaknesses in the development and operation of IPABS-IS impacted its ability to satisfy Department goals and meet users' information needs. For example, the Department's software engineering methodology, a primary control designed to introduce discipline into the development process, was not always followed. Procurement efforts and the accumulation of costs associated with development were not properly managed or controlled. In addition, the system did not fully satisfy Department goals or meet certain users' information needs, and suffered from weaknesses in the security and continuity of operations areas.

Software Engineering Methodology

While a number of the required elements had been completed, the development and operation of IPABS-IS did not always follow the Department's software engineering methodology. EM initially complied with requirements to develop a system project plan, feasibility statement, and other required documents. Despite major scope changes such as a conversion of the system database, however, the project plan was not updated as required. EM spent over $300,000 on the database conversion without formal justification and without updating the project plan. The project plan did not contain an overall project schedule and was not consistently followed. Also, plans for training, installation, overall project testing, and acquisitions were not developed.

Procurement and Cost Controls

During our audit, we observed a number of questionable system related procurement transactions. Specifically, purchases appeared to have been split to avoid Government Purchase Card (GPC) limits and competition requirements. We noted that Internet hosting services for IPABS-IS were ultimately provided by an unapproved, open-market

vendor through methods that may not have met competition requirements. EM neither formally justified nor performed a cost/ benefit analysis prior to contracting for the outside Internet hosting provider, an action that will potentially increase web hosting costs by over $770,000 over the projected remaining life of the system. Also, an EM official without proper approval authority authorized the procurement of hosting services and IPABS-IS related equipment. These practices were generally prohibited by Federal procurement regulations and the Department's GPC Program guidelines.

Because of the need for prompt management attention, we issued a Management Alert describing our interim findings in this area to the Assistant Secretary for Environmental Management on February 15, 2001. The Assistant Secretary for Environmental Management responded to the Management Alert on March 6, 2001, and indicated that her office had begun to develop management controls to resolve the issues noted in the alert. EM concurred with the recommendation to review their procurement practices with respect to the use of GPCs at Headquarters to ensure that purchase practices conform to Federal and Department requirements. Management's response can be found in Appendix 4.

In addition, we found that ineffective project cost controls contributed to expenditures that substantially exceeded both budgeted and reported costs. During the audit, EM officials could not readily provide cost information relating to the development and operation of the system. Difficulties were attributable to the lack of an effective project cost control mechanism capable of tracking and controlling disparate project costs such as procurements made through GPCs, blanket purchase agreements, and multiple support service contracts. The tracking of cost information is critical to ensuring successful project management and adequate control. For FY 2000, EM budgeted system costs to be about $2 million and reportedly spent $3.5 million. However, our review disclosed that over $4 million was spent in FY 2000 excluding Federal effort; $2 million more than budgeted and $500,000 more than reported by EM.

Satisfying Department Goals and Meeting Users' Needs

Despite a substantial investment over a number of years, the Department's corporate system for environmental project management did not fully meet certain users' information needs. While the system replaced various data collection systems and achieved Year 2000 compliance, it did not provide Headquarters and Field personnel with

timely information needed for project management. EM reported that three of eleven locations were utilizing IPABS-IS as their sole project management system. Other locations sampled during our review were operating supplemental systems for project management at a substantial cost to the Department. For instance, the National Energy Technology Laboratory was operating the Project Management Information System at a cost of about $400,000 per year. In addition, the Savannah River Site spent about $100,000 annually to operate the Budget Execution Formulation System to track EM related contractor costs. In addition, IPABS-IS' electronic interfaces and data exchanges with other Department and EM systems had not been integrated as expected. For instance, EM reported that efforts to integrate the system with the Departmental budgetary and fund distribution system had not had much success until recently. Other legacy project management systems such as the EM's Technology Management System (TMS) have not been integrated into IPABS-IS.

Despite the expenditure of about $6 million and over three years of effort, IPABS-IS does not completely satisfy system development goals and the Department's broader goal of improving project management. Contrary to design goals, the system had not eliminated all duplicative systems and did not consistently supply timely data necessary for project management. Project management weaknesses related to not adhering to the software engineering methodology, project scheduling and cost control, and procurement practices are symptomatic of the problems the Department seeks to mitigate through its current project management reform initiative. As noted in the Department's Fiscal Year 2000 Performance and Accountability Report, project management remains one of the top 12 management challenges.

System Security and Continuity of Operations

Although a number of computer security controls were in place, certain access controls and controls related to continuity of operations were inadequate. Specifically, the approved security plan and other related procedures did not properly provide security awareness and training detail, adequately address periodic review and removal of users, and did not identify the proper security official. Additionally, testing of system access controls revealed that former EM employees and other individuals without valid system needs were not purged from access lists and formal authorization was not required for system access. Finally, a continuity of operation agreement did not exist for the system

and continuity testing had not been performed as required. After we pointed them out, EM moved immediately to correct weaknesses in certain system access practices and in the system security plan approval process.

System Development and Operational Requirements

The Clinger-Cohen Act and Office of Management and Budget directives require that agencies maximize the value of investments and that all development projects be closely monitored and integrated into an agency-wide IT architecture. The Clinger-Cohen Act specifically requires Federal agencies to adopt a comprehensive approach to acquiring and managing information technology. It also directs the respective agency Chief Information Officer (CIO) to monitor all information technology programs for performance issues and provide advice to the agency head on whether to continue, modify, or terminate projects. Furthermore, both Congress and the Office of Management and Budget (OMB) stipulate, through Clinger-Cohen and Circular A-130 respectively, that financial decision-making for IT investments shall be linked to the agency's strategic plans and their IT architecture.

In addition, the OMB Circular A-130 requires Federal agencies to establish a level of security for information systems that is commensurate with the risk and magnitude of the harm that would result from the loss, misuse, or unauthorized access to, or modification of, the information contained in the systems. The Circular requires the incorporation of security features and controls through all phases of the system lifecycle, including development and operation. Among others, access controls commensurate with data sensitivity are a prominent requirement for all information systems. Circular A-130 also requires continuity of operations planning and testing.

Architecture Integration not Required and Insufficient Project Monitoring

The Department did not actively manage or closely monitor the system's development. For example, the Department did not comply with Clinger-Cohen requirements to actively manage the system by integrating system development with its IT architecture project. The Office of the CIO was also not required and did not closely monitor development of the system for attributes such as cost, schedule, and general project management. Further, the absence of specific performance measures adversely impacted EM's development and operation of the system.

Architecture Integration

Even though the Department had been working on a corporate-level IT architecture since FY 1995, Departmental elements were not required to integrate the development of corporate-level systems into the project. The architecture effort documented the Department's corporate business activities, data needs, applications requirements, and provided an overall framework for defining corporate applications and data, as well as prioritization for systems modernization. Despite the projected investment of $220 million and the potential for substantially improving systems development efforts, Departmental elements were only encouraged, but not required, to utilize the architecture for new or ongoing projects. Because utilization of the architecture was not mandatory, reengineered or renamed systems could continue development in perpetuity without being brought under the disciplined development structure.

CIO Monitoring

Despite Clinger-Cohen Act requirements, the Department did not closely monitor the IPABS-IS project. The Department did not require the Office of the CIO to be specifically involved in monitoring the development and operation of the system. Based on its decentralized approach to application software development, the Department delegated all monitoring and oversight responsibility to program-level officials. As we pointed out in our report on *Corporate and Standalone Information System Development* (DOE/IG-0485), the Department delegated development and procurement authority for systems costing $50 million or less to Field sites and Program Offices thus excluding virtually all systems from the CIO's review and concurrence process.

Performance Goals

The Department had not developed specific performance goals for EM's information technology efforts as required by the Government Performance and Results Act of 1993 (GPRA). For instance, the Department's Fiscal Year 2001 Budget Request addressed the importance of IPABS-IS to accomplishing EM's mission goals. However, the Department's Annual Performance Plan did not contain any specific performance goals related to IPABS-IS development and operation. The Performance Plan also did not have specific goals for IPABS-IS integration into the architecture effort. GPRA requires

Federal agencies to establish clear and measurable performance goals for all critical programs. Without specific goals, the Department lacked a basis to measure and demonstrate its performance in this important area.

Ineffective Use of Resources

As a result, the Department spent about $6 million for a corporate-level information system solution that does not fully satisfy management information needs and may not achieve the Department's architecture goals. In addition, the Department could potentially save over $770,000 by utilizing existing capacity instead of outsourcing required computing services over the projected remaining life of the system. Further, system security weaknesses identified in this report increased the risks of malicious damage and unauthorized release of information.

RECOMMENDATIONS

We recommend that the Acting Chief Information Officer, in conjunction with the Acting Assistant Secretary for Environmental Management, better monitor information technology development and operations by performing the following specific actions:

1. Require that IPABS-IS interfaces be established that are consistent with Corporate Systems Information Architecture components in the future;

2. Establish specific performance measures or goals, to be included in the Department's Annual Performance Plans, for improving IT system development and operation;

3. Immediately improve IPABS-IS access control weaknesses and continuity of operations; and

4. Ensure that actions initiated in response to the Management Alert on questionable information technology procurements are completed.

MANAGEMENT REACTION

With exception of number two, management agreed with the recommendations and proposed corrective actions. With regard to specific performance measures, management believed that including measures for a relatively small, mission-related system development effort, when compared to overall program budget dollars, would be misplaced in the Department's Annual Performance Plans.

AUDITOR COMMENTS

Except for recommendation number two, management's comments and proposed corrective actions are responsive to the audit recommendations. We disagree with management's position regarding the inclusion of focused, system specific, performance measures in the Department's Annual Performance Plan. We believe that such measures, when properly implemented, provided management with a valuable tool for monitoring and controlling project development efforts. Additional management and auditor comments are contained in Appendix 3.

Appendix 1

SCOPE

The audit was performed between August 2000 and April 2001 at Department Headquarters in Washington, DC, and Richland Operations Office in Richland, Washington. We evaluated whether IPABS-IS was satisfying IT architecture requirements and meeting the users' information needs and Department goals. Our work did not include a determination as to whether security weaknesses found were actually exploited.

METHODOLOGY

To accomplish our objectives, we:

- Reviewed Federal Acquisition Regulation, Clinger-Cohen, GPRA, OMB Circulars, Departmental Orders, Notices, and guidance pertaining to information technology security, acquisition, development, and operation.

- Reviewed Departmental budget requests, performance agreements and plans, and strategic plan for compliance with GPRA.

- Reviewed relevant reports issued by the Office of Inspector General and the General Accounting Office.

- Held discussions with officials and staff in the Office of EM, CIO, Chief Financial Officer, Procurement and Assistance Management, and at various operations offices and contractor operated facilities.

- Reviewed contracts, task orders, statements of work, invoices, development plans, and security procedures and practices relating to IPABS-IS development and operations.

In order to determine potential savings, we obtained information from the Office of Security and Emergency Operations on the charges associated with Internet hosting services at the Germantown Administrative Computing Facility. Their monthly charge of $33 per computer server connection was multiplied by the nine server connections for IPABS-IS. This monthly amount of $297 was multiplied by the remaining projected life of IPABS-IS, April 2001 through September 2005. This total of $16,038 was deducted from $790,236, the total of the $14,634 recurring monthly charges for housing the computing equipment at the commercial facility over the same time period. We arrived at total potential savings of $774,198 ($790,236 – $16,038).

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed. Also, we did not rely on computer-processed data to accomplish our audit objective. An exit conference was held with CIO and EM representatives on June 8, 2001.

Appendix 2

RELATED OFFICE OF INSPECTOR GENERAL AND GENERAL ACCOUNTING OFFICE REPORTS

- *Audit of Department of Energy's Management Information Systems for Environmental Compliance Activities,* DOE/IG-0284, April 1990. The report pointed out that the Department did not have a comprehensive database of information for management's use in demonstrating compliance with environmental laws and related requirements. The Department met various tracking and reporting requirements through separate data requests and by permitting various Department offices and contractors to develop a multitude of systems.

- *Audit of Department of Energy's Information Management Systems,* DOE/IG-0423, August 1998. The report stated that the CIO lacked the authority and resources necessary to ensure development of information architectures at the program office level, which form the building blocks of a Departmental architecture. As result, the Department had not developed and implemented an information technology architecture, although its Strategic Plan called for the implementation of a Departmentwide information architecture with supporting standards by January 1998.

- *Audit of the Department of Energy's Unclassified Computer Network Security at Selected Field Sites,* DOE/IG-0459, February 2000. The report disclosed that six Departmental sites had significant internal or external weaknesses that increased the risk that their unclassified computer networks could be damaged by malicious attack. The need was pointed out for the Department to correct vulnerabilities found and establish specific goals and performance measures for improving the level of unclassified computer security relating to network operations.

- *Audit of the Department of Energy's Implementation of Presidential Decision Directive 63, Critical Infrastructure Protection,* DOE/IG-0483, September 2000. The report pointed out that the Department has not implemented its critical infrastructure protection plan to mitigate significant vulnerabilities, or assure the continuity and viability of its critical infrastructures. Therefore, the Department could not achieve the purpose of Presidential Decision Directive 63.

- *Audit of the Department of Energy's Corporate and Stand-Alone Information Systems,* DOE/IG-0485, September 2000. The report stated that the Department programs, sites, and contractors developed a number of administrative and programmatic information systems that duplicate the functionality of systems in use. Also, the Department has been unable to control such development, because of the lack of an application software strategy designed to reduce or eliminate duplicative systems.

- *Report on Better Information Resources Needed to Accomplish Missions,* United States General Accounting Office (GAO), GAO/IMTEC-92-53, September 1992. The report stated that the Department does not exercise sufficient management control to ensure that information resources are managed effectively and that such control over the acquisition and use of information resources is essential to ensure that mission needs are met and to prevent waste. The report added that the Department has wasted money developing information systems that did not meet users' needs in part because adherence was not required to Department life-cycle development methodologies.

- *Department of Energy's Fiscal Year 2000 Performance Plan*, GAO/RCED-99-218R, July 1999. The report identified various management challenges, including that the Department had difficulty in completing large projects. The report added that from 1980 through 1996, the Department terminated 31 of 80 major system acquisitions, mission critical projects costing over $100 million, after expenditures of over $10 billion.

- *Serious and Widespread Weaknesses Persist at Federal Agencies*, GAO/AIMD-00-295, September 2000. The report stated that evaluations of computer security published since July 1999 continue to show that Federal computer security is fraught with weaknesses and that as a result, critical operations and assets continue to be at risk. The report added that the Department did not have an effective program for managing technology security consistently, including identification and assessment of information security risks.

ADDITIONAL MANAGEMENT AND AUDITOR COMMENTS

The Acting Chief Information Officer and Acting Assistant Secretary for Environmental Management concurred with all recommendations except for recommendation 2. Management also provided a number of comments regarding proposed actions and facts presented in the report. A summary of management's comments and auditor's responses follow.

Recommendation 1.

Management Comments. Management stated that a process is being established within the Office of CIO and in collaboration with Departmental Lead Program Secretarial Officers to track IT investment budgets and costs at the project level. Also, management added that EM is currently improving the core competencies of IT professional staff to ensure that the requisite skills are acquired to perform effective management and tracking of all program-related IT projects and related investments.

Management agreed with the need for IPABS-IS interfaces to the CSIA in the future. Management stated that the CSIA reserves a section for each program to develop program-specific architectures for their systems, and that efforts are being made to satisfy that requirement. Management added that the Program Office is in the process of converting the system's handbook into an explicitly labeled program enterprise architecture that is compliant with Departmental guidance.

Auditor Comments. We consider management's proposed actions to be responsive to our recommendation.

Recommendation 2.

Management Comments. Management stated that broad measurable goals relative to Departmental Corporate Systems modernization have been submitted. Management added that specific performance measures relating to what is considered a relatively small, mission-related system development effort, when compared to overall program budget dollars, would be misplaced in the Department's Annual Performance Plans.

Auditor Comments. We disagree with management's position regarding specific, focused performance measures. We believe there is a need to

establish performance goals or measures in the Department's Annual Performance Plans that are sufficiently detailed to permit management to track progress in meeting development and other important milestones. Such goals should contain sufficient specificity to permit Program officials to track, at a minimum, program budget requests, such as the $95 million identified for EM's overall IT investment.

Recommendation 3.

Management Comments. Management stated that a procedure has been implemented to ensure that access authorizations no longer needed are removed in a timely manner. Management added that other security related issues identified in the report have been addressed as part of a corrective action plan. Also, that review and testing of policies and procedures relating to continuity of system operations are in progress.

Auditor Comments. We consider management's actions responsive to our recommendation.

Recommendation 4.

Management Comments. Management stated that corrective actions are in process and fully expected them to be completed in compliance with their developed schedule.

Auditor Comments. We consider management's actions responsive to our recommendation.

General Comments.

The Acting Chief Information Officer and Acting Assistant Secretary for Environmental Management also provided general comments on issues discussed in our report. These comments, along with auditor responses, have been incorporated where appropriate and follow.

Management Comments. Management disagreed that EM could save $770,000 by utilizing the Department's Germantown Administrative Computing Facility for Internet hosting services. Management added that the savings were overstated, and did not prove that the facility is functionally equivalent to the existing service provider's facility.

Auditor Comments. We stand by our projections. Management provided no basis for questioning our projected savings other than to state that they are conducting an analysis of the issue that will not be completed until June 30, 2001. As acknowledged by management, a

formal analysis to determine whether the existing facility was capable of providing similar services was never performed. It should be noted that the existing Departmental facility houses a number of critical systems, including the financial information systems, and the cost for maintaining the facility is largely fixed. With regard to our projection, management may have arrived at a similar conclusion had it performed an analysis prior to resorting to an open-market procurement.

Management Comments. Management stated that the IPABS-IS Feasibility Task Force evaluated the $5.8 million PMC system but determined that a web-based approach would better align with the then Assistant Secretary's goals. Management added that key decision makers were identified for inquiry purposes.

Auditor Comments. Information regarding a specific, formal justification for terminating the PMC system was not provided during our audit. Furthermore, we are not in a position to reconstruct or develop such a justification.

Management Comments. Management believes that the assertion that the program overspent its budget in FY 2000 by more than $2 million is incorrect and that there was a lack of clarity in our report regarding the derivation of the over $4 million spent on the system. Management, however, acknowledged that the tracking of budgets and costs by the program needs improvement.

Auditor Comments. Because of inadequacies in the tracking of budgets and costs for the system, our calculation of over $4 million spent in Fiscal Year 2000, excluding Federal effort, had to be derived from various sources that we can share with management. The budgeted costs of about $2 million cited in the report were extracted from the *Report on Information Technology, OMB, Circular A-11, Exhibit 53*, Fiscal Year 2000 total for IPABS-IS.

Management Comments. Management believes that the Department's software engineering methodology was followed in principle and that more detailed implementation elements were documented and discussed in meetings in lieu of constantly updating the project plan. Management added that a schedule was provided showing that key delivery milestones were routinely met throughout the system development life cycle.

Auditor Comments. We acknowledge that a schedule was provided showing key delivery milestones and reported system development and operating costs. However, it should be noted that the schedule was informal, did not reflect accurate expenditures for the system as determined during the audit, and disclosed that the majority of key delivery milestones had not been met in a timely manner. Also, it should be noted that the project plan, a key element of the Department's software engineering methodology, had not been updated to reflect changes that had occurred during the system life cycle since 1998.

Management Comments. Management stated that justification, or direction from the Office of CIO, to convert IPABS-IS to another proprietary database standard is contained in the *DOE Technology Architecture Framework Report*. Management added that a complete transition plan for the database conversion will be completed prior to actually conducting the conversion. However, management also stated that IPABS-IS was never viewed as or intended to be a Department-wide corporate system that needed to be explicitly part of the Departmental Corporate System Information Architecture effort.

Auditor Comments. Formal justification, such as an analysis of alternatives or an update to the system project plan does not exist to support the database conversion envisioned for IPABS-IS. The *DOE Technology Architecture Framework Report* does not clearly mandate, or solely support, a conversion to the particular proprietary database selected as cited by management.

Management Comments. Management asserted that the scope and objectives for IPABS-IS developed in 1998 clearly state that the system was intended as a Department Headquarters system and not a field project management system. Management added that the observation about the existence of supplemental systems does not imply that the system did not meet its goals. However, management did acknowledge that work is in progress to more effectively integrate and/or link IPABS-IS, where possible, with the TMS and other Departmental systems.

Auditor Comments. One of the objectives of IPABS-IS was to "… bring timely and reliable data to the desktops of Field and Headquarters users which are relevant to program/project management and reporting activities, and national policy." This factor, coupled with the fact certain locations were utilizing IPABS-IS as their sole project management system, lead us to conclude that the system was intended to replace existing project management systems.

Department of Energy
Washington, DC 20585

MEMORANDUM FOR PHILLIP L. HOLBROOK
DEPUTY INSPECTOR GENERAL
FOR AUDIT SERVICES
OFFICE OF THE INSPECTOR GENERAL

FROM: CAROLYN L. HUNTOON
ACTING ASSISTANT SECRETARY FOR
ENVIRONMENTAL MANAGEMENT

Carolyn L Huntoon 3-06-01

SUBJECT: MANAGEMENT ALERT ON QUESTIONABLE
INFORMATION TECHNOLOGY PROCUREMENTS

This is in response to your February 15, 2001, *Management Alert on Questionable Information Technology Procurements*. You identified areas where the lack of appropriate management controls, training and follow through occurred. I want to assure you that Environmental Management takes these matters seriously and we have already begun developing management controls to resolve your concerns.

We concur with your recommendation to review present Environmental Management Headquarters procurement practices with respect to the use of Government Purchase cards, ensuring that they conform to Federal and Departmental requirements. Dr. Barbara Male, Director of Management and Information, has already met with the Director of the Office of Headquarters Procurement Services to identify appropriate corrective actions and has developed a draft corrective action plan (attached). The corrective action plan will be provided to the Office of Headquarters Procurement Services for review and comment before it is finalized.

With respect to your concern about the use of a commercial Internet Service Provider to host IPABS-IS, I have directed my staff to work with the Office of Headquarters Procurement Services, to identify a means to allow us to use services at the DASH Center while the FY2003 Budget Data collection is taking place. During this period, which I do not expect to exceed 4 months, we will reevaluate our decision to locate the IPABS-IS system at a commercial Secure Hosting Center instead of at the Department's Germantown facility based on system requirements and operations capabilities. Your memorandum requests our comments on the factual accuracy of your findings and we are providing them in the attachment. Should you have any questions, please call Dr. Male on (202) 586-1665.

Attachments

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2. What additional information related to findings and recommendations could have been included in this report to assist management in implementing corrective actions?

3. What format, stylistic, or organizational changes might have made this report's overall message more clear to the reader?

4. What additional actions could the Office of Inspector General have taken on the issues discussed in this report which would have been helpful?

Please include your name and telephone number so that we may contact you should we have any questions about your comments.

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