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United States Government

Department of Energy

Memorandum

OFFICE OF INSPECTOR GENERAL

DATE: March 31, 2006

REPLY TO ATTN OF: IG-34 (A05TG028)

Audit Report No.: OAS-L-06-10

SUBJECT: Report on Audit of "The Department's Information Technology Capital Planning and Investment Control Process"

TO: Chief Information Officer, IM-1

INTRODUCTION AND OBJECTIVE

Federal guidance requires that Agencies develop and implement capital planning and investment control (CPIC) processes to help ensure that their major information technology investments achieve intended outcomes, represent the best allocation of resources, and reach strategic goals and objectives. The Department of Energy (Department) established an Information Technology Council (ITC), composed of representatives from all major program offices to help maximize the business value and mission performance of information technology investments.

In January 2004, the Government Accountability Office reported weaknesses in investment management, performance measurement, and strategic planning across Federal agencies, including the Department of Energy. As we observed in our recently issued *Special Report on Management Challenges at the Department of Energy* (DOE/OIG-0712, December 2005), information technology management continues to pose a significant challenge. Because of the substantial investment involved, we initiated this audit to determine whether the Department had effectively managed its information technology capital planning and investment control process.

CONCLUSION AND OBSERVATIONS

The Department had developed a number of controls designed to improve the management of its capital planning and investment control process. Specifically, the processes for selecting, controlling, and evaluating information technology investments had been enhanced by requiring quarterly investment reviews; instituting the use of investment performance improvement plans; developing investment scoring schemes; and, publishing guidance for performing system post-implementation reviews. In certain instances, however, we found that projects did not always conform to investment control requirements related to scoring, project manager certification, and validation of reported results. We also observed other factors that could limit the effectiveness of the investment control process. In particular:

- Revisions needed to implement policy or requirement changes had not been made to information technology related-directives;
- Officials had not formally approved the operating charter for the ITC; and,
- Resources necessary to carry out review and validation of investment performance data had not been allocated.

Management and Review

Performance scores, in some cases, were inconsistently applied and/or contrary to requirements. As part of the quarterly control reviews, the ITC was required to assign a score for each performance element (e.g., cost, schedule, and performance variance, project management, and security) and an overall score for each major investment by applying a "stoplight" (i.e., red, yellow or green) rating system. The scores were developed using information provided by the program office responsible for the investment. If no cost, schedule, or performance information is reported by the program, or if investments were not meeting their performance thresholds, investments were to be scored as either red or yellow.

However, we identified an investment that received a score of "green" despite not meeting its performance thresholds. Specifically, the National Nuclear Security Administration's (NNSA) Nuclear Materials Accountability Project received a score of "green" overall for the third quarter of FY 2005 even though the project incurred a cost overrun of 13 percent. Based on scoring criteria, such an overrun should have resulted in an overall score of "yellow." For other NNSA managed investments, projects were scored only on an overall basis and omitted ratings for each of the individual investment elements described above.

Project manager certifications were also not being adequately tracked for certain NNSA managed investments. Both Federal and Department guidance require the use of qualified information technology project managers. In addition, the Office of Management and Budget (OMB) has identified their use as the first line of defense against cost overruns, schedule slippages, and poor performance. Although the Office of the Chief Information Officer (OCIO) maintained the Information Technology Project Management Qualification Database, we noted that it omitted information for project managers in the NNSA's project management mentoring program. An official in the OCIO acknowledged this problem and indicated that procedures are currently being developed to address this issue.

Reported performance results for operational investments were also not always reviewed and validated on an ongoing basis by OCIO officials. Federal directives and Department guidance stress the importance of performing these activities to help ensure the integrity of information provided and confirm that operational investments are cost effective and continue to support agency requirements. An official in the OCIO acknowledged the need to perform these procedures on a regular basis but indicated that responsibility had yet to be assigned.

Guidance, Authority, and Resources

The Department had not completed necessary revisions to information technology-related directives to incorporate the CPIC governance process. Specifically, the Department's information technology and project management directives had not been revised for alignment with the CPIC process in information technology reporting thresholds and the applicability of OMB requirements. The Department originally projected completing needed revisions by the end of FY 2005; however, an official in the OCIO indicated that they remained incomplete because of delays in reaching consensus on applying information technology capital planning guidance to NNSA. An NNSA official acknowledged the issue and stated that significant progress has been made in resolving it.

Similarly, although initially developed by January 2004, the Department had not formally approved the operating charter for the ITC due to unresolved issues on applying the CPIC governance process to NNSA. According to the charter, the ITC is an advisory board of designated program and staff office representatives with responsibility for carrying out investment evaluation and providing recommendations to the Chief Information Officer (CIO). Without an approved charter, the ITC lacked a mandate for carrying out its role in the information technology capital planning process.

Contrary to OMB guidance, the OCIO also had not allocated resources for implementing review and validation functions in support of the CPIC process. For FY 2006, OMB required agencies to perform independent validation of reported performance for ongoing projects. An official in the OCIO acknowledged this shortcoming and indicated that this allocation would have to be performed to satisfy requirements.

SUGGESTED ACTION

To help ensure that the Department's information technology investment process is functioning as required, we suggest that the CIO, in coordination with the NNSA and other Lead Program Offices, move expeditiously to complete revisions to information technology-related directives and guidance and to obtain ITC charter approval.

Since no formal recommendations are being made in this report, a formal response is not required. We appreciate the cooperation of your staff during this audit.

Rickey R. Hass
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Financial, Technology, and Corporate Audits
Office of Audit Services
Office of Inspector General

Attachment

cc: Team Leader, Audit Liaison, CF-1.2
Director, Policy and Internal Controls Management, NA-66
Audit Liaison, EM-33
Audit Liaison, FE-3
Audit Liaison, IM-10
Audit Liaison, NE-10
Audit Liaison, SC-32.1

Attachment

SCOPE AND METHODOLOGY

Fieldwork on the audit of the Department of Energy's (Department) Information Technology Capital Planning and Investment Control Process (CPIC) was performed between November 2004 and March 2006 at Department Headquarters. To accomplish the audit objective, we:

- Obtained and reviewed past reports and evaluations and inquired about ongoing work by the Office of Inspector General and Government Accountability Office that were relevant to the capital planning and investment control process;

- Identified and reviewed Federal laws and directives and Department orders, policies, procedures, and guidance relevant to the capital planning and investment control process;

- Held discussions with officials within the Office of Chief Information Officer (OCIO) in Washington, DC, and Germantown, MD, to determine the role of the OCIO in managing the Department's capital planning and investment control process and the level of direction provided to program elements and field sites in implementing the guidance;

- Held discussions with program officials in the National Nuclear Security Administration (NNSA) and Offices of Environmental Management, Civilian Radioactive Waste Management, Nuclear Energy, Fossil Energy, and Science to gain an understanding of the CPIC process from their perspective;

- Obtained and reviewed capital planning and investment-related documentation such as business cases for major investments, mission statements, and organization charts; and,

- Attended various Information Technology Council meetings to observe and confirm process implementation.

The audit was performed 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. Accordingly, we assessed significant internal controls and performance measures under the *Government Performance and Results Act of 1993* regarding management of the capital planning and investment control process. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We did not rely on computer-processed data to accomplish our audit objective. We discussed the results of our audit with OCIO and NNSA representatives on March 30, 2006.