



OFFICE OF INSPECTOR GENERAL

U.S. Department of Energy

AUDIT REPORT

DOE-OIG-19-03

October 2018

**THE DEPARTMENT OF ENERGY'S
FUNDS DISTRIBUTION SYSTEM 2.0**



Department of Energy
Washington, DC 20585

October 31, 2018

MEMORANDUM FOR THE SECRETARY

Michelle Anderson
FROM: Michelle Anderson
Deputy Inspector General
for Audits and Inspections
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on “The Department of Energy’s
Funds Distribution System 2.0”

BACKGROUND

The Office of the Chief Financial Officer (OCFO) is responsible for maintaining and operating several key systems to manage the Department of Energy’s financial transactions. The Funds Distribution System 2.0 (FDS 2.0) is one of these systems and provides for the receipt, control, and distribution of all obligational authority available to the Department. Initially, the Funds Distribution Improvement Project was established in response to a need by the National Laboratory Directors Council to improve the speed and efficiency of the funds distribution process. As part of this effort, FDS 2.0 was intended to improve the efficiency and effectiveness of the funds distribution process and be the single source of budgetary appropriations, apportionments, allotments, and allocations for the OCFO’s Office of Budget, program and staff offices, and field offices.

Prior reviews identified weaknesses related to system development efforts conducted by the Department. For example, our special report on the *Office of Energy Efficiency and Renewable Energy’s Integrated Resource and Information System* (DOE/IG-0905, April 2014) found weaknesses in the areas of project planning and execution, cybersecurity, and contracting. In addition, we have noted past concerns with prior large-scale system development efforts managed by the OCFO. Specifically, several challenges were identified during the implementation of the Standard Accounting and Reporting System, including concerns with interface testing, system functionality, user acceptance testing, and processing of legacy data. We also received an allegation in 2014 regarding potential project mismanagement with the OCFO. Given its importance to the Department’s financial operations, we initiated this audit to determine whether FDS 2.0 was effectively developed and implemented and is meeting its goals and objectives.

RESULTS OF AUDIT

Although the system was placed into operation on October 1, 2016, we found that FDS 2.0 was not effectively developed and implemented. In particular, we determined that the project significantly exceeded its estimated cost and schedule. In addition, upon implementation, FDS 2.0 had not achieved several of its intended goals and objectives. We also found that information related to the system's development and implementation was not accurately reported to the Office of Management and Budget (OMB) prior to operation, as required. The Department also did not obtain approval of changes to the funds control regulations from OMB. Furthermore, Department officials had not ensured that critical project decisions were appropriately documented and that policies and procedures were updated to reflect process changes associated with the new information system. Specifically, we found:

- The Department had not managed FDS 2.0 in a manner that ensured the project remained within estimated costs and schedule. We determined that development and implementation costs significantly exceeded the planned budget amounts. Specifically, the OCFO spent over \$16 million more than originally planned to develop and implement the system. While the initial cost estimate for FDS 2.0 was \$5.7 million, the project had incurred costs of at least \$22.2 million as of March 2017. In addition, we found that FDS 2.0 was not implemented until 1 year after the initial planned execution date.
- Although FDS 2.0 went into operation in October 2016, the system had not met many of its intended goals and objectives. For instance, it had not improved the efficiency of funding distribution to the Department's programs. In addition, FDS 2.0 did not always include more intuitive reporting tools designed to provide management with better information through a more robust reporting capability. Specifically, when the system was implemented, the reporting functionality did not fully exist. Furthermore, FDS 2.0 did not always provide program offices with more control over the funds distribution process, as intended. We noted that program and staff offices were not able to manage their funds distributions without working through the OCFO, an enhancement that could have increased the efficiency of the funds management process. Subsequent to our review, management indicated that it had significantly increased the number of available reports and provided more control over funds to programs and staff offices.
- The Department did not accurately report information about the development and implementation of FDS 2.0 to OMB. In addition, we found that the OCFO did not obtain the required approvals from OMB prior to changing the funds control regulation. Even though OMB indicated to the Department that changes to the funds control regulation introduced by the new system would not conform to the requirements of OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget*, OCFO officials placed FDS 2.0 into operation on October 1, 2016.
- The Department had not ensured that critical project management decisions were appropriately documented or that policies and procedures were updated to reflect process changes associated with the new information system. For instance, contrary to records management policies, the decision to use a specific software product as part of the FDS

2.0 initiative was not documented by OCFO management in formal decision memoranda or other correspondence. We also determined that the OCFO did not take necessary steps to update several key Department directives and guidance in response to changes in the funds control process associated with the implementation of FDS 2.0. Due to the weaknesses noted above, we were especially concerned about the lack of updates to policies and procedures that should have been available to end-users of FDS 2.0.

As of December 2017, our followup discussions with program officials indicated that many of the issues noted above continued to present challenges to the Department. For instance, program offices continued to express concerns with timeliness of funds processing, report generating capability, and system access. These concerns still exist even though more than 12 months had passed since the system first went into operation on October 1, 2016.

The issues identified occurred, in part, because OCFO officials did not adhere to several key Department directives that could have helped enhance the effectiveness of FDS 2.0 development and implementation efforts. For instance, the FDS 2.0 project team did not follow project management methodologies, tools, and techniques set forth in Department Order 415.1, Administrative Change 1, *Information Technology Project Management*, that would have held the OCFO accountable for delivering the project within cost, scope, and schedule. In addition, we determined that the Department had not established an effective governance structure to manage development and implementation of FDS 2.0. Although a defined governance structure could have enabled the Department to maintain visibility over the status of the initiative's costs, schedule, and technical baselines, we found that it was not until approximately 3 years after the start of the project that a formal integrated project team was defined. We made several recommendations that, if fully implemented, should help the Department improve the management of FDS 2.0 and future information system implementation efforts.

MANAGEMENT RESPONSE

Management concurred with the report's recommendations and indicated that corrective actions had been initiated or were planned to address the issues identified in the report. Management's comments and our responses are summarized in the body of the report. Management's formal comments are included in Appendix 3.

Attachment

cc: Deputy Secretary
Chief of Staff
Under Secretary of Energy
Under Secretary for Science
Administrator, National Nuclear Security Administration
Chief Information Officer
Chief Financial Officer

THE DEPARTMENT OF ENERGY’S FUNDS DISTRIBUTION SYSTEM 2.0

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THE DEPARTMENT OF ENERGY'S FUNDS DISTRIBUTION SYSTEM 2.0

BACKGROUND

The Office of the Chief Financial Officer (OCFO) developed and implemented the Funds Distribution System 2.0 (FDS 2.0) to provide for the receipt, control, and distribution of all obligational authority available to the Department of Energy. Initially, the Funds Distribution Improvement Project was established in response to the need to improve the funds distribution process. As part of this effort, FDS 2.0 was intended to enhance the efficiency and effectiveness of the funds distribution process and be the single source of budgetary appropriations, apportionments, allotments, and allocations for the Department's Office of Budget, program and staff offices, and field offices. The initial cost estimate for a new funds distribution system was \$5.7 million, and the OCFO originally planned to implement the system in September 2015. Preliminary comments provided by the OCFO indicated that several factors were considered in the decision to move forward with FDS 2.0. Specifically, the OCFO stated that internal control weaknesses in the legacy Funds Distribution System, outdated system infrastructure, and significant cybersecurity issues all were considered by the OCFO.

DETAILS OF FINDINGS

System Development and Implementation

Based on our review of documents and interviews with individuals from about a dozen program and staff offices, we found that FDS 2.0 was not effectively developed and implemented. In particular, we determined that the project significantly exceeded its estimated cost and schedule. In addition, upon implementation, FDS 2.0 had not achieved several of its intended goals and objectives. We also found that information related to the system's development and implementation was not accurately reported to the Office of Management and Budget (OMB) prior to operation, as required. The Department also did not obtain approval of changes to the funds control regulation approved by OMB. Furthermore, Department officials had not ensured that critical project decisions were appropriately documented or that policies and procedures were updated to reflect process changes associated with the new information system.

Project Cost and Schedule

The Department had not managed FDS 2.0 in a manner which ensured that the project was implemented within estimated costs and on schedule. In particular, we determined that FDS 2.0 development and implementation costs significantly exceeded the planned budget amounts. Specifically, the OCFO spent over \$16 million more than originally planned for the system. While the business case indicated that the cost to acquire and implement a new funds distribution system was \$5.7 million, the project had incurred approximately \$22.2 million in development and implementation costs as of March 2017. This included more than \$1.1 million of contractor travel expenses incurred since the project's initiation in 2011. The OCFO indicated that contractor resources with the relevant skills were scarce in the Department Headquarters Washington, DC area; however, we noted that the cost of contractor travel was not included in project planning documentation provided during our review. Management commented that \$5.7

million was only for business process improvements and that costs for development, testing, and implementation for the new system were not developed until late 2013. However, documentation provided by the OCFO indicated that work on establishing a new system began well before the end of 2013, including vendor demonstrations of potential system replacements.

FDS 2.0 was not implemented until 1 year after the initial planned execution date. Although the development efforts were expected to be completed in late fiscal year (FY) 2015 with a “go-live” date of October 1, 2015, several program offices expressed concern that FDS 2.0 would not be ready in time. For example, in June 2015, the National Nuclear Security Administration (NNSA) and the Offices of Environmental Management and Science raised concerns related to (1) potential *Anti-Deficiency Act* violations; (2) the system’s ability to provide funding in a timely manner; (3) incomplete agreed-to user acceptance testing and training of users prior to operating the system; and (4) publication of Department policy and guidance reflecting the changes associated with FDS 2.0. Based on our review, it was apparent that the OCFO was unable to adequately address the challenges posed by these concerns before the planned operation date and decided to delay system implementation until October 1, 2016. In comments on our preliminary report, OCFO officials indicated that the delay in implementation was the result of system changes requested by several program offices. However, based on documentation provided by the OCFO, concerns with and defects in the system identified by program offices were cited as reasons for the delay. OCFO officials commented that NNSA’s concerns were unfounded and asserted that employees from several program offices caused delays throughout the project by what OCFO officials indicated were repeated, unfounded concerns that disrupted the ability to complete the project.

System Capabilities

Although FDS 2.0 was placed into operation on October 1, 2016, the system had not met a number of its intended goals and objectives, such as improving the speed of funds distribution, generating needed reports, allowing program offices more control over funds, and ensuring that necessary functionality was included in the new system. Specifically, we found:

- FDS 2.0 had not improved the efficiency at which funds were distributed to the Department’s programs. For instance, under the prior system, 62 allotments were processed within the first 7 business days of FY 2016. However, using FDS 2.0, only 14 allotments were processed in the first 7 business days of FY 2017. At least one program office raised concern that some of its accounts did not have funds available by October 17, 2016, and indicated that furloughing thousands of contractors at several Department locations was considered. OCFO officials commented that certain program offices routinely claim that funds will run out but indicated that this has never occurred. While OCFO management did not disagree that fewer allotments were processed, it indicated that distribution of funds with the new system was slower than expected due to a lack of familiarity with the system.
- FDS 2.0 did not have a robust reporting capability to provide management with better information and simpler, more intuitive reporting tools. Although various reports were available when the system was implemented, feedback provided by system users during

our review indicated that the reports were not adequate. For example, an employee responsible for funds distribution within the OCFO stated that while the legacy Funds Distribution System could automatically generate a batch of 12 reports when funding was allotted, FDS 2.0 lacked the capability to generate these reports. These included reports such as Congressional Base Table, Internal Base Table, detailed realignment reports, and quarterly and year-to-date reports. This same individual explained that, without these reports, certain information from FDS 2.0 had to be manually manipulated by the OCFO funds distribution control team, increasing the risk of errors. In addition, the audit team was told that this process was very time consuming and that the data generated by FDS 2.0 was not locked to prevent additional edits to financial data contained in the system. During followup discussions in December 2017, several program offices continued to raise concerns over the ability of FDS 2.0 to generate reports for system users. Program officials indicated that they had either set up internal processes or relied on pulling information directly from the Department's Standard Accounting and Reporting System to compensate for the lack of reports from FDS 2.0. Subsequent to our review, management indicated that there were nearly 100 reports in production and several more in development.

- Contrary to goals and objectives, FDS 2.0 had not initially allowed program offices more control over the funds distribution process. Specifically, some program and staff offices were not provided access to FDS 2.0 when it was activated and were unable to manage the distribution of their funds. Rather, they were instructed to send their information to the OCFO so that it could be entered into the system by OCFO employees. Despite assurances by the Deputy Chief Financial Officer in response to an August 2014 allegation made to the Office of Inspector General that FDS 2.0 would “eliminate re-keying of data to reduce data entry errors and improve efficiency,” access had not been provided to all programs as of December 2017. Subsequent to our review, OCFO management indicated that program offices now have complete control over the distribution of their funds and no longer have to rely on the OCFO to process transactions.
- FDS 2.0 was implemented without all the system functionality that existed within the previously used legacy Funds Distribution System. For example, while the new FDS 2.0 system had the ability to process transactions for the Department's multi-billion-dollar Loan Guarantee Program, evidence provided identified the occurrence of errors during the processing of the loan transactions. In addition, several months after the system was placed into operation, the OCFO proposed a list of “enhancements” to FDS 2.0. These “enhancements” were to include addressing the inability of FDS 2.0 to generate reports and process the recovery of prior year de-obligations¹, capabilities deferred by OCFO management until after the implementation date. Documentation reviewed indicated that many of the “enhancements” were functions that had existed within the legacy Funds Distribution System and should have already been in place prior to the implementation of FDS 2.0. As of December 2017, we determined that while FDS 2.0 can distribute funds to program offices, field sites, and laboratories, several of the initial goals of the system

¹ An agency's cancellation or downward adjustment of previously incurred obligations. De-obligated funds may be re-obligated within the period of availability of the appropriation.

have yet to be realized. For example, several program offices expressed concern regarding the system's efficiency in distributing funds in a timely manner. At least two program offices informed us that they experienced lengthy delays receiving their prior year de-obligations — funds the program offices were rightly entitled to use to support their mission. In preliminary comments to our report, OCFO officials indicated, with respect to prior year de-obligations, that the OCFO must request additional authority from OMB to distribute prior year de-obligations and that any delays caused by the process are not related to FDS 2.0. The OCFO also indicated that these same delays occurred under the legacy Funds Distribution System.

OMB Reporting and Approval

The OCFO did not accurately report information about FDS 2.0 in its submissions to OMB. Specifically, the budget year (BY) 2016 Major IT Business Case² submission indicated that the entire FDS 2.0 project was to be completed by September 30, 2015, at a total cost of \$9.5 million. However, this did not include \$1.7 million of previously incurred costs. Ultimately, we determined that the total actual expenditure spent through BY 2016 was \$17.2 million. In addition, certain areas of the Department's Major IT Business Case submission to OMB for BY 2017 and BY 2018 were not completed. Specifically, we determined that information related to whether the investment would result in elimination or the reduction of another major or non-major information technology (IT) investment(s) was left blank, despite FDS 2.0 being the replacement system for three legacy funds distribution systems. While OCFO officials indicated that it was other programs that did not adequately report on the elimination of legacy systems, the documentation in question was completed by the OCFO.

The OCFO did not obtain required approvals from OMB prior to modifying the funds control regulation and operating the system. OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget*, requires that funds control regulations be submitted to OMB for approval. While the OCFO noted in 2014 that changes to the existing process were in development, the OCFO was unsure if OMB approval would be required. However, in response to a prior allegation made to the Office of Inspector General, the Deputy Chief Financial Officer stated that if approval was required, the OCFO would obtain it. While the Department did begin corresponding with OMB about changes to the Department's funds control regulation, the OCFO never received approval from OMB. Specifically, on September 30, 2016, OMB was still evaluating the proposed changes to the funds control regulation and informed the Department that it had not yet approved any changes to the Department's existing funds control regulations. Thus, with the Department's intent to begin operating the system on October 1, 2016, the changes to the process introduced by the new system did not conform to the Department's existing regulations approved by OMB. Although the Department had requested an exception to the policy, the Office of Inspector General received confirmation from OMB that it had not approved the updated funds control regulation as of March 2018.

² An agency's Major IT Business Case describes the justification, planning, implementation, and operation of individual capital assets included in the Agency IT Portfolio Summary and serves as a key artifact of the agency's Enterprise Architecture and IT capital planning process.

Records and Policy Management

Key decisions made during the FDS 2.0 project development process did not follow Department guidance related to records management. In addition, the OCFO did not take necessary steps to update several key Department directives and guidance in response to changes associated with the implementation of FDS 2.0. In particular, we found:

- The OCFO did not follow the Department's records management guidance during the FDS 2.0 project management process. FDS 2.0 was developed using a commercial-off-the-shelf software product, which needed to be configured to the Department's specifications. While the OCFO did conduct an analysis of alternative products, the final decision to use the selected software product was not documented by OCFO management. As noted in Department Order 243.1A, *Records Management Program*, documentation of key decisions is a critical component of records management and must be protected.
- The OCFO did not take necessary steps to update key Department guidance in response to funds control regulation changes associated with the implementation of FDS 2.0. Specifically, no updates were made to the *DOE Financial Management Handbook* to reflect additional steps to the funds control regulation. The purpose of the *DOE Financial Management Handbook* is to outline the Department's standards, procedures, and operational requirements. These policies and procedures must be the basis for what the funds distribution process will follow. However, without proper updates to the *DOE Financial Management Handbook*, the actual funds distribution process will not follow the regulations approved by OMB. This occurred despite assurances by the Deputy Chief Financial Officer in response to a 2014 allegation made to the Office of Inspector General that the guidance would be updated. Concerns about this guidance were also raised by NNSA in June 2015, 3 months prior to the planned start of FDS 2.0 operations. As of December 2017, the OCFO had not yet issued updated Departmental guidance. Specifically, the *DOE Financial Management Handbook* has not been issued with updated information specific to the funds control regulation.

Based on our review, we determined that better documentation and more timely updates to guidance could have helped ensure that stakeholders were kept informed of changes to the Department's funds distribution process.

Project Management Approach

The issues identified occurred, in part, because OCFO officials had not taken adequate efforts to implement existing project management policies and procedures, including project management directives that could have helped enhance the effectiveness of FDS 2.0 development and implementation efforts. In addition, the OCFO had not established an effective governance structure to manage development and implementation of FDS 2.0.

Policy Implementation

The OCFO did not adhere to several key Department directives that could have helped enhance the effectiveness of FDS 2.0 development and implementation efforts. For instance, the FDS 2.0 project team did not follow the requirements set forth in Department Order 415.1, Administrative Change 1, *Information Technology Project Management*, issued in January 2013. Specifically, the OCFO had not fully developed and/or implemented IT project management methodologies, tools, and techniques designed to ensure that products or services were produced according to requirements and specifications on time and within budget. The OCFO had not fully developed and implemented a project schedule documenting the entire lifecycle of FDS 2.0 or a requirements document approved by the project manager and customers that detailed functional, operational, and acceptance criteria. For instance, although we found that numerous schedules were developed, we noted that these schedules did not adequately present the status of the project against original timelines. We also noted that the OCFO had not included all costs of the project in planning documentation. We found that \$1.1 million in travel expenses incurred by FDS 2.0 contactors were not included in the original cost estimate.

Contrary to Department requirements, the project team did not ensure that user requirements were finalized during the planning phase of FDS 2.0. As noted by Department Order 415.1, the requirements document that outlines functional, operational, and acceptance criteria should have been approved by a senior official such as the project manager and customer representatives. However, the FDS 2.0 requirements document did not include such approvals in a timely manner. In addition, even when requirements were established, they were not always met. For example, our review identified that officials had not ensured that various reporting capabilities were fully implemented when the system became operational. As noted earlier in our report, numerous program and staff offices indicated that FDS 2.0 reporting features did not always meet their needs.

Furthermore, we determined that record keeping requirements included in Department Order 243.1A, *Records Management Program*, were not always followed. Although the records management program is to provide for “adequate and proper documentation of activities, organization, functions, policies, business processes, decisions, and essential transactions of the Department of Energy,” the FDS 2.0 project team did not always adhere to these requirements.

Governance and Monitoring

The OCFO had not established an effective governance structure to manage development and implementation of FDS 2.0. A defined governance structure could have enabled the Department to maintain visibility over the status of the project’s cost, schedule, and technical baselines and helped to ensure that the project was managed in an effective manner. However, it was not until approximately 3 years after the start of the project that a formal integrated project team was defined. An NNSA official also indicated the communication process between NNSA and the OCFO was not effective, commenting that no logical chain of command existed to present OCFO leadership with NNSA’s concerns. The concerns, which were shared by several other program offices, related to potential *Anti-Deficiency Act* violations, system functionality, project schedule, user training, and publication of Department policy and guidance. In preliminary

comments to our report, OCFO officials described numerous instances when the OCFO met with and discussed concerns raised by NNSA. The OCFO also indicated that NNSA support and resources related to the system's development were not always provided.

The OCFO did not always follow the guidance and advice provided by Department officials to ensure that FDS 2.0 met applicable OMB requirements. Specifically, in March 2016, approximately 6 months prior to operation of the system, the Office of the General Counsel advised the OCFO that the proposed FDS 2.0 system did not meet OMB Circular A-11 requirements. While the OCFO had coordinated with OMB, the necessary approval for changes to the funds control process was ultimately never granted by OMB. In addition, the OCFO did not follow OMB requirements for reporting capital assets. Specifically, criteria set forth by OMB for capital assets include IT that was acquired by the Federal Government and have an estimated useful life of 2 years or more. The OMB also dictates that major acquisitions are capital assets that require special management attention because of their importance to the agency mission, high development costs, or significant role in the administration of agency programs. Contrary to the criteria, the OCFO reported FDS 2.0 information as part of the OCFO's portfolio of other IT systems known as iManage. In our opinion, the goal of FDS 2.0 and costs associated with its development satisfy the criteria to be considered a capital asset and should have been reported separately to OMB.

While information related to FDS 2.0 was included as part of iManage for several years, doing so resulted in key project management tools being omitted from the project. Specifically, the OCFO reported that because iManage had reached steady-state operations starting in fiscal year 2012, Earned Value Management, an important project management tool, was not required. However, given the status of system development from 2013 to 2016, FDS 2.0 did not meet the definition of "steady-state," which OMB defines as the phase of the system life-cycle in which the asset is in operations and produces the same product or provides a repetitive service.

Path Forward and Other Matters

To its credit, in January 2017, the Department updated Department Order 200.1A, *Information Technology Management*, to include changes required by the *Federal Information Technology Acquisition Reform Act*. Specifically, the directive notes that an Investment Review Board will be convened to provide formal review and approval of IT projects. However, these changes did not occur until after development and implementation of FDS 2.0. While the full effect of these changes is yet to be seen, it is imperative that the OCFO take immediate and necessary action to develop a path forward to address the weaknesses identified in our report. Without improvements related to its project management practices, the OCFO may incur higher than necessary costs for future projects and develop systems that do not fully meet intended goals and objectives. We are particularly concerned as the OCFO plans to add the Budget Formulation component to the system, as well as enhancements for several functions of FDS 2.0 that were not included when the system went into operation in 2016. Given the critical nature of the OCFO's mission within the Department and future system development efforts, we have made several recommendations to help improve how the Department and the OCFO manages current and future system development efforts.

RECOMMENDATIONS

To improve the management of FDS 2.0 and future system development efforts, we recommend that the Chief Financial Officer:

1. Adhere to applicable Department policy and guidance related to project management, to include (a) ensuring that proper methodologies and tools are used to deliver projects within cost, scope, and schedule; and (b) following appropriate records management practices;
2. Coordinate with the Office of the Chief Information Officer on review and approval of IT projects, including implementation of the updated requirements of Department Order 200.1A, *Information Technology Management*;
3. Review OMB Major IT Business Case information to ensure accuracy and completeness of the data reported to OMB;
4. Conduct a status review of FDS 2.0 and develop a clear path forward to address cost, scope, and schedule issues and to ensure that the necessary functionality of FDS 2.0 is available to the Department's users; and
5. Obtain the necessary OMB approval for the updated FDS 2.0 funds control process.

MANAGEMENT RESPONSE

Management concurred with each of the report's recommendations and indicated that corrective actions had been initiated or were planned to address the issues identified in the report. For instance, management indicated that it was in the process of developing a process to support records scheduling by the end of October 2018. In addition, the OCFO indicated that it held a series of user feedback sessions to seek out additional opportunities for FDS 2.0 system improvements. Management also commented that it intended to convene an annual session to continue to obtain comments from the users.

AUDITOR COMMENTS

Management's comments and planned corrective actions were responsive to our recommendations. While management's comments provided additional information for context and background about FDS 2.0, we did not verify or validate each of the statements in management's response. In addition, management indicated that no IT findings related to FDS 2.0 were issued in conjunction with our prior report, *Information Technology Management Letter on the Audit of the Department of Energy's Consolidated Financial Statements for Fiscal Year 2017* (DOE-OIG-18-15, January 2018), which focused on cybersecurity, not system development. Management's comments are included in Appendix 3.

OBJECTIVE, SCOPE, AND METHODOLOGY

Objective

We conducted this audit to determine whether the Funds Distribution System 2.0 was effectively developed and implemented and is meeting its goals and objectives.

Scope

The audit was performed between October 2016 and October 2018 at Department of Energy and National Nuclear Security Administration Headquarters in Washington, DC and Germantown, Maryland. The audit was conducted under Office of Inspector General Project Number A16TG066.

Methodology

To accomplish our objective, we:

- Reviewed applicable laws, regulations, and directives related to systems development and project management;
- Reviewed relevant reports issued by the Office of Inspector General and the Government Accountability Office;
- Held discussions with officials from the Department and the National Nuclear Security Administration, including various Federal and contractor staff associated with the Funds Distribution System 2.0 project; and
- Reviewed project management documentation pertaining to the development and implementation of the Funds Distribution System 2.0, including project management plans, project status reports, and contracts, including contractor invoices.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. Accordingly, we assessed significant internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. In particular, we assessed the Department's implementation of the *GPRM Modernization Act of 2010* and determined that the Department had not established performance measures related to the development and implementation of the Funds Distribution System 2.0. 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 rely on computer-processed data and determined that the data provided was sufficiently reliable for the purposes of our audit objective.

Management waived an exit conference on October 16, 2018.

PRIOR REPORTS

- Audit Report on [*The National Nuclear Security Administration's Network Vision Initiative*](#) (DOE-OIG-16-05, December 2015). This report found that implementation of various components of the National Nuclear Security Administration's Network Vision Initiative were significantly behind schedule and over budget. In addition, the Network Vision Initiative may not meet its primary objectives of enhancing collaboration among employees and implementing a fully operational cloud-based computing solution. These issues were attributable, in part, to ineffective project planning practices related to the development and implementation of the Network Vision Initiative. In addition, monitoring and oversight activities were not always sufficient to ensure success and hold project managers accountable for delivering the project within cost, scope, and schedule. Furthermore, various communication issues, such as reporting inaccurate project information to a Congressional Committee and National Nuclear Security Administration senior management, may have contributed to problems related to completing the project in a timely and effective manner.
- Special Report on [*Office of Energy Efficiency and Renewable Energy's Integrated Resource and Information System*](#) (DOE/IG-0905, April 2014). This report found that the Office of Energy Efficiency and Renewable Energy had not adequately managed the development and implementation of the Integrated Resource and Information System (IRIS). In particular, we determined that officials had not implemented effective project management practices when developing and implementing IRIS. The Office of Energy Efficiency and Renewable Energy also had not implemented essential cybersecurity controls designed to protect the system and the information it contained. In addition, our review identified concerns related to contracting practices used to support the selection and procurement of IRIS components, including the purchase of software licenses and payments for labor to support the development of the system. The issues identified were due, in large part, to an accelerated planning, development, and deployment approach used by Office of Energy Efficiency and Renewable Energy officials to implement the IRIS project. In attempting to expedite the implementation of IRIS, Energy Efficiency and Renewable Energy program officials had not appropriately followed Federal requirements, Department of Energy guidance, and best practices related to system development, cybersecurity, and contract management. In addition, we determined that performance monitoring over the project was not adequate to help ensure its success.
- Audit Report on [*Naval Reactors Information Technology System Development Efforts*](#) (DOE/IG-0879, December 2012). This audit found that the Naval Reactors Program had taken several positive actions designed to resolve development issues associated with the Enterprise Business System. However, our review identified continuing system development issues. In particular, neither Naval Reactors Program officials nor the project contractors had adequately considered the use of a commercial-off-the-shelf product prior to upgrading and modernizing the financial components of the Enterprise Business System. In addition, we found that the Naval Reactors Program had encountered delays in the Enterprise Business System development effort, resulting in additional costs and a later than expected completion date; and we found that the

Enterprise Business System project had not been reported to the Department and the Office of Management and Budget as a major information technology investment, as required. Despite spending approximately \$10 million of the budgeted \$12.8 million for the procurement phase of the Enterprise Business System development effort, Naval Reactors Program officials had not submitted the required budgetary information to the Department or Office of Management and Budget, an action that could have allowed for improved performance monitoring.

MANAGEMENT COMMENTS



Department of Energy
Washington, DC 20585

October 10, 2018

MEMORANDUM FOR: APRIL STEPHENSON
ACTING INSPECTOR GENERAL
OFFICE OF THE INSPECTOR GENERAL

FROM: JOHN G. VONGLIS *JV*
CHIEF FINANCIAL OFFICER
OFFICE OF THE CHIEF FINANCIAL OFFICER

SUBJECT: Management Response on Inspector General Draft Report,
A16TG066, *The Department of Energy's Funds Distribution System 2.0*

The Office of the Chief Financial Officer (OCFO) has reviewed the Office of the Inspector General (OIG) draft report titled, "*The Department of Energy's Funds Distribution System 2.0.*"

The objective of the audit was to determine whether the Funds Distribution System 2.0 (FDS 2.0) was effectively developed and implemented, and is meeting goals and objectives. The OIG asserts that FDS 2.0 was not effectively developed and implemented.

Starting on October 1, 2016, DOE budget execution transactions were distributed from OCFO to DOE field sites by 240 users in one system – FDS 2.0. In fiscal year (FY) 17, FDS 2.0 processed \$44.8B through 577 allotments to 30 program offices resulting in pre-allocations to 47 locations. In FY18, after a full year in operation, with additional users and increased familiarity with the system and processes, OCFO distributed operating funds, and 63 allotments were posted in STARS, within the first seven business days of FY18 (October 1-11, 2017). These transactions were processed faster than in the previous three years. Also on January 9, 2018, the OIG issued the "*Information Technology Management Letter on the Audit of the Department of Energy's Consolidated Financial Statements for Fiscal Year 2017*" produced by KPMG. During the Information Technology (IT) review for the financial statement audit, KPMG reviewed the FDS 2.0 system and issued no IT findings on FDS 2.0.

As noted in the attached response, the OCFO concurs with the OIG's recommendations in the draft audit report. Many of the OIG's recommendations are in various stages of implementation throughout the Department. For context and background in the audit report specific areas of comment by the OCFO include:

- The FDS 2.0 project evolved over time from the Funds Distribution Improvement Project, a business process improvement effort that took place in 2011, 2012, and part of 2013 at a cost of \$5.7M to the FDS 2.0 project which developed and implemented a new system to replace three legacy systems. Once the decision was made to replace the legacy systems with a modern, secure, and integrated system, requirements were updated with a cost estimate of approximately \$10M. The actual cost for this planned effort was approximately \$10.1M and implementation planned for October 1, 2015.

- During user acceptance testing in May of 2015, the Department's program and field offices provided feedback regarding operations resulting in adjustments to requirements, including revised design for the pre-allocation and allocation processes, process optimization to streamline steps and process flows, edits in the processes, and additional review steps. At that date, it was not possible to accomplish the redesign, development, and testing of these processes to meet an October 1, 2015 implementation date. OCFO, at the request of several major program offices, including SC, NNSA, and EM, delayed the FDS 2.0 implementation by one year at a cost of \$6.4M.
- Upon completion of the aforementioned requirements FDS 2.0 replaced and retired three legacy systems with one modern system integrated with the core financial management system (STARS); reduced cybersecurity risk through replacement of outdated and unsupported servers and software; improved internal controls for DOE budget execution through real-time funds check with STARS; provided clear definition of system roles and responsibilities that increased segregation of duties with an audit trail of all transactions at all levels; increased program office control of funds below Congressional control point and OMB apportionment levels; eliminated the requirement that program offices seek OCFO approval to redistribute funds below those levels; and, provided program office control over policy and program implementation with allocation decisions with the headquarters program offices. At the time of implementation over 40 reports were available. Since then enhanced reporting capabilities were requested and approved, and at present 96 reports are currently available.
- OCFO is operating the system under the applicable and previously OMB approved funds control rules as established in Chapter 2 of the Financial Management Handbook (FMH). The review of pen-and-ink changes to the FMH is in process with reissuance projected by March 31, 2019. OCFO is also in the process of updating DOE Orders 520.1A, 523.1, and 534.1B to reflect any changes associated with FDS 2.0.
- After the completion of the first full year of operations and distribution of FY18 funding, OCFO held 25 feedback sessions for FDS 2.0 users during February 2018, generating 680 comments. A number of changes were requested and are being implemented, such as improving the integration frequency with DOE's Standard Accounting and Reporting Systems (STARS) and streamlining the input forms for the pre-allocation and allocation processes. The FDS 2.0 Change Control Board (CCB), composed of representatives from the OCFO, Program Secretarial Offices (PSOs), and the Department's field offices, approved seven additional enhancement items from the feedback sessions and those are in development for production rollout at the start of FY19.

Attachment: Management Response to the Office of Inspector General's Audit of *The Department of Energy's Funds Distribution System 2.0 (A16TG066)*

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Recommendation 1:

Adhere to applicable Department policy and guidance related to project management, to include (a) ensuring that proper methodologies and tools are used to deliver projects within cost, scope, and schedule; and (b) following appropriate records management practices.

Management Response: Concur. Specifically, OCFO is following appropriate records management practices and is in the process of developing a process to support records scheduling by the end of October 2018.

Recommendation 2:

Coordinate with the Office of the Chief Information Officer on review and approval of IT projects, including implementation of the updated requirements of Department Order 200.1A, *Information Technology Management*.

Management Response: Concur. OCFO currently coordinates with OCIO and IT governance boards on the review and approval of IT investments and is compliant with the updated requirements of Department Order 200.1A on Information Technology Management, which incorporates FITARA.

Recommendation 3:

Review OMB Major IT Business Case information to ensure accuracy and completeness of the data reported to OMB.

Management Response: Concur. In August 2018, OCFO reviewed OMB's guidance for FDS 2.0 as part of the response to this audit recommendation and found it to be accurate and complete. OMB does not permit modification of previous inputs to Major IT Business Case data.

Recommendation 4:

Conduct a status review of FDS 2.0 and develop a clear path forward to address cost, scope, and schedule issues and to ensure that the necessary functionality of FDS 2.0 is available to the Department's users.

Management Response: Concur. In February, 2018, OCFO held a series of user feedback sessions to seek out additional opportunities for FDS 2.0 system improvements and many of those suggestions are being implemented to enhance the user experience. Completion for the initial set of improvements is fourth quarter FY 2019. OCFO also intends to convene an annual such session to continue to ascertain comments from the users.

Recommendation 5:

Obtain the necessary OMB approval for the updated FDS 2.0 funds control process.

Management Response: Concur. OCFO will continue to work with OMB to reflect technical updates related to the FDS 2.0 funds control process. OCFO is working on pen and ink changes to the Financial Management Handbook, and the goal is to reissue the Handbook by March 31, 2019.

FEEDBACK

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